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STATE AND LOCAL PUBLIC FACILITY  
NEEDS AND FINANCING

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STUDY PREPARED FOR THE  
SUBCOMMITTEE ON ECONOMIC PROGRESS

OF THE

JOINT ECONOMIC COMMITTEE  
CONGRESS OF THE UNITED STATES

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Volume 2

PUBLIC FACILITY FINANCING



DECEMBER 1966

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## LETTERS OF TRANSMITTAL

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DECEMBER 21, 1966.

*To Members of the Joint Economic Committee:*

Transmitted herewith for the use of the Joint Economic Committee and other Members of Congress is a study of State and local public facility financing over the next 10 years. It is the second part of the staff study prepared for the Subcommittee on Economic Progress with the assistance of a number of experts from Government departments, private industry, and trade associations. Only two of the many organizations that were asked to help failed to respond and, while any such omission is highly regrettable, neither, fortunately, was critical to the value of the final report.

The first volume estimated capital requirements over the next decade for essential public facilities. The present volume analyzes the prospective sources of credit funds to finance construction of these facilities. It was prepared independently of the first volume. The massive challenge facing this Nation in respect to meeting growing requirements for transportation, schools, health facilities, public utilities, water pollution, and the many other needs, demands that our experts and scholars devote increasing attention to these problems. Foremost among the relevant issues is the question of financing, which obviously will have a basic effect on the success of the Nation's efforts. It is hoped that these two studies will stimulate inquiry and prove valuable to policymakers, economists, public administrators, urban planners, scholars, and legislators.

The committee is grateful to the many experts who gave generously of their time to help us in this important work, and, in particular, to Dr. Arnold H. Diamond, Assistant Director, Office of Economic and Market Analysis, Department of Housing and Urban Development who, as consulting economist to the committee, undertook the major responsibility for preparing and assembling this study. We are also grateful to the Department of Housing and Urban Development for making him available to the committee. The views expressed in these materials are those of the individual contributors and do not necessarily represent the views of the agencies with which they are connected, this committee, or its individual members.

WRIGHT PATMAN,

*Chairman, Joint Economic Committee.*

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DECEMBER 19, 1966.

HON. WRIGHT PATMAN,  
*Chairman, Joint Economic Committee,  
Congress of the United States,  
Washington, D.C.*

DEAR MR. PATMAN: Transmitted herewith is a study of the prospective availability of credit to finance State and local public facilities over the next decade. It was prepared by staff of the Subcommittee

on Economic Progress with the aid of a number of highly qualified experts on the various types of institutions that provide funds for the municipal bond market. The study also contains comprehensive descriptive materials on the municipal bond market and the trends that have affected it and are continuing to affect it. It represents the second volume of the subcommittee's comprehensive study of public facility needs and financing. The first volume projected public facilities needs in the United States over the next 10 years. This volume analyzes potential sources of credit.

The amount of State and local government obligations now outstanding is slightly more than \$100 billion. By 1975 this figure will double according to our best estimates. Such massive credit requirements have tremendous implications for the economy and will warrant increased study and attention in the coming years. While the individual projections underlying this study indicated that sufficient funds would be available for requirements projected, it is equally clear that this is only possible through heavy and growing reliance on commercial banks and to a lesser extent on two or three other specific sources of funds, e.g., personal trusts and fire and casualty companies. Obviously it will be fruitful to explore this factor in relation to the broader credit requirements of the economy and anticipated growth of the public sector.

The individual chapters in this extensive study were prepared by professional experts who have been unstinting in giving of their time and energy. The committee is grateful to them and to their organizations for so graciously making available their time and talents. Participating experts are identified at the beginning of each chapter and in the table of contents.

The committee is particularly grateful to Dr. Arnold H. Diamond, Assistant Director, Office of Economic and Market Analysis, Department of Housing and Urban Development, who, as consulting economist to the committee, undertook the major responsibility for planning the scope of research, editing, and coordinating this study. Eleanor Aeschliman assisted with the editing. The study was under the general supervision of John R. Stark, Deputy Director.

JAMES W. KNOWLES,  
*Executive Director.*



# STATE AND LOCAL PUBLIC FACILITY NEEDS AND FINANCING

## Volume 2. Public Facility Financing

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# STATE AND LOCAL PUBLIC FACILITY NEEDS AND FINANCING

## Volume 2. PUBLIC FACILITY FINANCING

### Introduction and Summary\*

#### INTRODUCTION

Volume 1 of this study focused on the Nation's public facility needs, providing detailed information on the existing capital plant, costs and user charges, trends of capital outlays over the past two decades, and estimated capital requirements during the next decade. In a sense, the volume presented comprehensive data on the demand for capital funds from the public facilities sector.

In contrast, the present volume is concerned mainly with the availability of funds to finance State and local public facilities, especially credit resources. The major emphasis of this volume is upon the sources of financing of capital outlays by State and local public agencies, with particular reference to the municipal securities market. Because of its growing importance, some attention is given to the financing of private nonprofit organizations. While most of the volume deals with the availability of private credit resources and the structure and trends of private credit markets, there are also several chapters describing State assistance programs.

#### A. PLAN OF THE STUDY

##### 1. *Objectives of Study*

###### (a) *Future Capacity of Capital Market*

According to the material presented in volume 1, by 1975 State and local public facility capital requirements are expected to reach a level that is almost double the volume of capital outlays in 1965, especially in the State and local public agency sector. If these capital requirements are to be met, there must be corresponding increases in available financial resources, including a substantial step-up in private investments in municipal securities and in obligations of private, nonprofit organizations.

Such expansions in credit resources will depend upon (a) whether the various financial institutional groups are prepared to increase their holdings of these securities or obligations (which, in turn, largely depend upon net inflows of funds, alternative investments, and comparative yields) and (b) the capacity of the organizational frame-

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\* By Dr. Arnold H. Diamond, consulting economist, Joint Economic Committee.

work of the respective sectors of the capital market to handle the expected increasing volume of securities or obligations with minimum strain.

Thus, the chief objective of the present volume is to ascertain the likelihood that the requisite private credit resources will be available to meet the anticipated capital requirements over the next decade. To help answer this question, the various chapters present a wealth of descriptive materials and statistics on the sources of funds, institutional forces, and emerging trends in the municipal securities market during the past 20 years. Particular attention is focused on such ancillary matters as (a) which of the major pools of institutional funds are likely to invest in municipal or private, nonprofit securities, (b) whether the marketing machinery hitherto developed can expand sufficiently to accommodate an increasing volume of securities, and (c) whether the credit instruments now in use, e.g., tax-exempt municipal securities and the diversity of instruments employed by private, nonprofit organizations, are best suited to meet future capital requirements.

### *(b) Linkage of Statistical Data*

Those who have occasion to study State and local government capital outlays or review the municipal securities market are often dismayed by the diversity of statistics available, each series seemingly unrelated to the others. Major data inputs are provided by (1) the Governments Division, Bureau of the Census (capital outlays, construction expenditures, outstanding debt, new debt issued, debt retired), (2) the Construction Statistics Division, Bureau of the Census (construction put in place), (3) the Treasury Department (distribution of holdings of State and local government obligations), (4) the Board of Governors of the Federal Reserve System (similar distribution), (5) the Bond Buyer (municipal bond sales), and (6) the Investment Bankers Association (municipal bond sales and characteristics of bonds sold). While each statistical series may be internally consistent, they do not tie into each other or with other data.<sup>1</sup> Thus, the analyst has the unhappy choice of either using isolated statistical series without bothering about consistency with other data or attempting to reconcile the various series through "adjustment factors" or "statistical discrepancy" notes.

Several efforts are made in this volume to link together some of the disparate statistical series. Chapter 1 relates for State and local governments (a) capital outlays to total expenditures, (b) construction expenditures to construction put in place, and (c) borrowing to capital outlays; and it also provides details regarding the composition of capital outlays, construction expenditures and long-term borrowing. Chapter 5 provides newly revised comprehensive data on new municipal bonds sold in 1957-65 by type of offering, bond, maturity, issuer, use of proceeds, size of issue, and State distribution, with appropriate cross tabulations. Supplement B of this chapter traces the relationships of capital outlays to long-term bond sales (net of refundings), bond retirements, outstanding debt, and net changes in outstanding debt for State and local governments. Supplement C presents a tabulation that links outstanding State and local govern-

<sup>1</sup> Aggregate statistics on the asset holdings of financial institutions or public agencies.

ment obligations to reported statistics on holdings of such obligations by identifiable investor groups.

(c) *Shedding New Light on Old Problems*

Over the years, discussions on public facility financing bring forth such questions as: 1. Why can't we make greater use of private, non-profit organizations? 2. Why can't the State governments assume a greater role in helping municipalities finance public facilities? 3. How can we expand municipal bond sales without improving the secondary market? 4. What are the effects of bond ratings in the municipal securities market? 5. To what extent are there defaults (as to payment of interest or principal) on municipal securities? 6. What is the availability (and price) of credit to small municipalities? 7. What happens to municipal borrowing during periods of credit tightness?

Review of the available literature reveals a paucity of factual information on these matters, each of which has an important bearing on the adequacy of financial resources for public facility capital requirements. To overcome these data gaps, chapters have been prepared on financing by private, nonprofit organizations; State aids for public facilities; State credit aids for public facilities; secondary market for municipal bonds; municipal bond ratings; postwar default experience of municipal securities; availability of credit for small municipalities; and credit effects on State and local government borrowing. In the main, these chapters provide new information, not previously available, on these subjects to aid those within the Congress, within the executive branch of the Federal Government and others who may have reason to examine the aforementioned questions further.

(d) *Comprehensive Review of Municipal Securities Market*

The latest comprehensive study of the municipal securities market was prepared by Roland I. Robinson in his notable "Postwar Market for State and Local Government Securities."<sup>2</sup> That study covered the postwar market through 1956 when long-term bonds sold totaled \$5.4 billion. By 1965, municipal bonds sold rose to \$11.1 billion,<sup>3</sup> and within the intervening 9-year period there have been a number of significant developments that warrant analysis.

Accordingly, part 2 of this volume examines the municipal securities market. There is a chapter detailing the characteristics of municipal bonds sold during the past decade and another that traces the trends of municipal interest rates. There are also chapters describing the emerging patterns of bond financing secured by general obligations, pledges of revenues, and lease rentals. Such institutional groups as bond underwriters, financial advisers, bond counsel, and consulting engineers, are covered in separate chapters. In later parts, there are reports on several surveys of financial institution attitudes regarding possible changes in the tax exemption accorded to municipal securities as well as some new statistics on the benefits and cost attributable to such exemption.

<sup>2</sup> Roland I. Robinson, "Postwar Market for State and Local Government Securities," a study by the National Bureau of Economic Research (Princeton, N.J.: Princeton University Press, 1960).

<sup>3</sup> Bond Buyer statistics.

## 2. *Outline of Study*

The study is divided into four parts, each containing a number of chapters dealing with designated subjects. Part 1 (containing four chapters) provides an overview of the trends in public facility financing. Part 2 (containing 12 chapters) is concerned with the emerging patterns, organizational structure, and certain problem areas of the municipal securities market. Part 3 presents four chapters dealing with municipal bond interest rates and the tax exemption accorded to municipal securities.

Part 4 consists of 10 chapters, each covering a designated investor group in terms of its interest in (a) municipal securities and (b) obligations issued by private, nonprofit organizations. Past trends are reviewed and prospective investments are projected or otherwise explored. In addition, the chapters contain a summary of views regarding portfolio considerations in making municipal security purchases and investor reaction to possible Federal guarantees of municipal securities.

## 3. *Procedure*

As indicated above, the chapters contained in this volume fall under two general classifications—those dealing with technical or specialized subjects, which appear in parts 1–3, and those dealing with specific financial industry or investor groups, which appear in part 4. To prepare the chapters on the technical or specialized subjects, arrangements were made with various individuals or groups, who were believed to be best qualified, to write authoritatively on the designated subject. In most instances those selected have established reputations or are acknowledged experts in their respective fields.

With respect to the chapters on specific investor groups, efforts were made to have the chapters prepared by the major trade association (or associations) serving the particular industry, since they are in the best position to elicit frank views from their memberships on questions posed by the committee questionnaire. In addition, they usually could provide from their cumulative knowledge, records, and available statistics a comprehensive picture of the industry's postwar growth developments, investment activity, and assess its potential participation in the expected credit expansion. Where there was no such trade association, arrangements were made with a Federal agency having comparable expertise to prepare the requisite chapter, i.e., Securities and Exchange Commission, in the case of "nonfinancial corporations," and Board of Governors of the Federal Reserve System, in the case of "individual investors." In several instances, multiple authorship became the more feasible arrangement. Thus, the chapter on commercial banks was prepared jointly by the Federal Deposit Insurance Corporation (industry description and historical trends) and by the American Bankers Association (surveys and projections). The chapter on life insurance companies was prepared by the Life Insurance Association of America on the basis of a survey conducted by committee staff. The chapter on fire and casualty insurance companies was prepared by committee staff on the basis of surveys conducted by the American Insurance Association, American Mutual Insurance Alliance, and the National Association of Independent Insurers of their respective memberships, plus other available data.

Selection of the subjects or institutional groups to be covered by

chapters was governed by a desire to provide, to the extent feasible, a complete picture of the current means of financing State and local public facilities by State and local public agencies and by private, non-profit organizations and their future prospects. Because adequate published information is already available, it was decided that it would be unnecessary to have chapters on such subjects as evaluation of municipal securities, problems of underwriting syndicates, or commercial bank underwriting of revenue bonds.<sup>4</sup> The financial institution groups, for which chapters were arranged, comprise either major pools of institutionalized loan funds or pools of funds that seem likely to be significant investors in municipal securities.

Each chapter has been prepared on the basis of an outline of topics or questions, developed by committee staff. To assure uniform coverage, the chapter writers dealing with financial institution groups (pt. 4) were requested to follow a standard outline, set forth in questionnaire form (see supplement A). Where appropriate, a list of economic assumptions for the years 1966-75<sup>5</sup> was furnished to the writers as a guide for any projections that may be made for these years.

The committee's letter of request prescribed that the requested chapter "should be limited to a factual account of the prevailing or historical situation, supplemented by appropriate estimates and projections. It should omit recommendations, suggestions for changes, or comments on existing or prospective legislation."<sup>6</sup> The chapters prepared under these instructions were then reviewed and edited by committee staff to delete extraneous materials, or commentary (directly or indirectly) on proposed legislation. Aside from these changes, the materials presented in the various chapters are solely the viewpoints of the respective chapter writers, identified on the first page of the chapter, who presumably took into account all available data.

## B. SUMMARY OF FINDINGS

### 1. *Trends in Public Facility Financing*

#### (a) *State and Local Government Financing of Capital Outlays*

Over the past 20 years State and local governments have expended approximately \$220 billion for capital outlays of which about half have been financed by borrowing. During recent years capital outlays have accounted for about one-fourth of all expenditures by State and local governments. About four-fifths of these capital outlays is for new construction, about 12 percent is for the purchase of land and existing structures and the remaining 8 to 9 percent involves equipment purchases (including replacements). In recent years slightly over 40 percent of capital outlays has been for highways, including urban streets, local roads, and toll facilities, and nearly one-fourth has been for educational facilities. Whereas expenditures for highways and education have generally paralleled the overall growth of State and

<sup>4</sup> Cf. Gordon L. Calvert, "Fundamentals of Municipal Bonds" (Washington, D.C.: Investment Bankers Association of America, 1963); Winn S. Curvin, "A Manual on Municipal Bonds" (New York: Smith, Barney & Co., 1956) and prior books on municipal securities; various articles on municipal securities appearing in the *Journal of Finance*, *Municipal Finance*, and the *Bond Buyer* and hearings before the House Banking and Currency Committee on "Increased Flexibility for Financial Institutions" (88th Cong., 1st sess., September-December 1963).

<sup>5</sup> Supplementary data to introduction and summary of vol. 1.

<sup>6</sup> Except, of course, where a question in the chapter outline called for suggestions or commentary.

local government capital outlays, the capital expenditures for health and hospitals have lagged considerably.

Total indebtedness of State and local governments at the beginning of July 1965 was approximately \$99 billion, or about 6 times greater than 20 years before. Of the \$110.1 billion borrowed during the 14 fiscal years 1952 through 1964-65, \$101.4 billion, or 92 percent, was used for capital outlays. Over the 8 fiscal years 1958 to 1964-65, long-term debt issued financed about 50.4 percent of State and local government capital outlays. About one-fifth of the capital outlays has, in recent years, been financed by Federal grants-in-aid and the balance has been financed by State and local governments from taxes and other current revenues.

(b) *Financing by Private, Nonprofit Organizations*

In our pluralistic economy communities are free to choose whatever organizational form or ownership pattern seems most suitable for their needs. For most areas of activity private-investor-owned companies (organized as corporations, partnerships, or individual proprietorships) appear most suited. Where public services are involved some form of public agency (State or local governments or instrumentalities thereof) operation seems more practical. However, for an increasing number of functions communities have turned to what is called a private, nonprofit organization. Traditionally, this organizational form has been employed for private hospitals, colleges, schools, and church operations. During the past three decades it has been used extensively for rural water supply systems, rural electrification or telephone facilities (usually through a "cooperative association"). In urban areas it is used as the form of organization for neighborhood centers for recreation (settlement houses), nursing homes, museums, and a growing number of theaters or community art centers. Finally, in the housing sector it is increasingly being employed to provide housing for the elderly, the moderate-income families and now the low-income families.<sup>7</sup>

Despite their rapid expansion, particularly in recent years, relatively little is known regarding the means of financing of these private, nonprofit organizations, especially their credit financing.<sup>8</sup> By and large, loans to nonprofit organizations are obtained from (a) capital market bond issues, (b) mortgage loans transacted with banks, insurance companies, and other institutional lenders, and (c) loans from the Federal Government. As evidenced by the commentary in the chapters on financial institution groups that appears in part 4, most lending institutions do not distinguish private, nonprofit organization borrowers from other private borrowers, either with respect to their holdings of bonds or mortgage loans. Yet, if we are to have a better appreciation of the apparent growing importance of private, nonprofit organizations, and if the relative costs of bond financing versus mortgage loan financing are to be appraised, some delineations by type of borrower and loan instrument will be needed.<sup>9</sup>

<sup>7</sup> Under the sec. 202 elderly housing, sec. 221(d)(3) below market interest rate and the rent supplement programs, respectively, all administered by the Department of Housing and Urban Development.

<sup>8</sup> As distinguished from the "public nonprofit corporations" that are used in some areas to construct facilities that are leased to public bodies. See discussion in ch. 8.

<sup>9</sup> According to the estimates presented in vol. 1, the public facility capital requirements for private, nonprofit organizations for the decade 1966-75 are estimated at \$53.5 billion. These estimates do not include housing.



As an initial step in overcoming this data gap, chapter 2 describes the sizable bond market financing by private, nonprofit organizations. The estimated volume of obligations issued by such organizations expanded from \$15 million in 1946 to \$52 million in 1955, \$138 million in 1960 and \$237 million in 1965. The loans are usually secured by a mortgage lien on the borrower's property, although there has been an increasing trend in the use of unsecured notes. Repayment periods have gradually lengthened from 10 to 15 years (usually arranged in the immediate postwar years) to a 20-year period, that is now frequently used. Most recently, terms up to 40 years have been arranged. During the years 1946-65 about 42 percent of the funds borrowed have been used to finance hospitals, 31 percent for educational institutions, 20 percent for churches and synagogues, and the remaining 7 percent for nursing and retirement homes or other purposes.

### (c) *State Aids for Local Public Facilities*

State aid to local governments for public facilities may take the form of shared taxes, grants-in-aid, direct loans, issuance of State bonds to finance local construction and assumption of responsibility for construction and maintenance of certain facilities (roads, bridges). State aids to local governments for capital outlays rose from \$332 million in 1952 to \$692 million in 1962 and \$956 million in 1964, and may well exceed \$1,150 million by 1970. Of the \$692 million of State aid for local government capital outlays in 1962, \$374 million was used for educational facilities, \$260 million for highways and \$58 million for other purposes (mainly for housing, urban renewal, and water resource projects).

At the end of 1965 there were some 26 State credit assistance programs in 17 States to aid local governments in the financing of public facilities. Of these 26 programs, 17 involved State direct loans, 5 involved State grants to cover debt service (all or part) on local government bond issues and 4 involved State guarantees of local government indebtedness. If account is taken of debt service grants as well as direct loans, between 1946 and 1965 total expenditures under the State credit aid programs amounted to \$3.2 billion, of which \$2 billion was for school construction and \$1.1 billion for public housing. State direct loans alone, including those with contingent repayments,<sup>10</sup> for public facilities only (excluding housing and business development loans) totaled \$1.8 billion during 1949-65.

State direct loans for public facilities, where repayment is firm, rose from \$24 million in 1949 to \$75 million in 1965, and aggregated \$297 million for the 17-year period ending in 1965. While State enactments of credit assistance programs have grown slowly, there is reason to expect such programs to become an increasingly important means of State financial assistance to local governments.

## 2. *Municipal Securities Market: Patterns, Structure and Problems*

### (a) *Emerging Patterns*

(1) *Characteristics of Bonds Sold.*—New issues of municipal bonds (long-term obligations issued by State and local governments and their

<sup>10</sup> According to Census Bureau definitions, where repayment is contingent, such direct loans are not counted as part of the local government indebtedness.

political subdivisions) rose from 3,319 issues for \$1.2 billion in 1946 to 6,059 issues for \$11.1 billion in 1965. Over the 20-year period a total of \$122.8 billion of bonds were sold, of which \$48.7 billion were sold during 1961-65. A comprehensive study of municipal bonds sold during 1957-65 finds that: (1) competitive bidding (as contrasted to negotiated sales) accounted for a rising trend of general obligation and revenue bond issues; (2) there is a heavy preponderance of general obligation issues for the shorter maturities and a dominance of the longest maturities by revenue issues; (3) there has been no marked change in the distribution of purposes for which bonds have been issued (aside from the volatile movements of bond refundings when municipal interest rates were low; that is, 1962-63 fiscal year); (4) while the proportion of borrowing accounted for by school districts has been stable, there has been a pronounced rise in borrowings by special districts and statutory authorities (from \$1.3 billion in 1957 to \$3.8 billion in 1965); and (5) among the regions, the South has increased most rapidly in terms of dollar volume of bonds.

(2) *General Obligation Bonds*.—The dollar volume of general obligation bonds rose from \$1 billion in 1946 to \$7.4 billion in 1965, but as a percent of total bonds issued, it has decreased from 83 to 67 percent over the two decades. The declining relative use of general obligation bonds may be attributed to (1) the narrow spread in interest costs between general obligation and revenue bonds; (2) the growth of public authorities that issue bonds payable solely from revenues of income-producing properties; (3) constitutional, statutory, and home rule charter limitations on general obligation indebtedness (usually expressed as a percentage of the assessed valuation of taxable property); and (4) the comparative ease of authorizing revenue bonds (no approval by the electorate required and no tax increase need be voted upon).

(3) *Revenue Bonds*.—New issues of revenue bonds have grown from \$0.2 billion in 1946, or 17 percent of the total, to \$1.7 billion in 1955, or 29 percent, and to \$3.6 billion in 1965, or 33 percent. In the past two decades the single most important development in revenue bond financing has been the broadened concept of public purpose so that it now embraces, in addition to the traditional water and sewer facilities, such facilities as toll roads, bridges, airports, public parks, recreation areas, power projects, stadiums, rapid transit facilities, public markets, college dormitories, and port facilities. Other major developments have been the growth of public authorities and, more recently, nonprofit corporations; and the increasing use of advance refunding (designed to replace high interest bonds with lower priced obligations). Significant changes in prevailing attitudes regarding bond security requirements include: stricter debt service coverage requirements, provision of a debt service reserve of at least 1 year's debt service (interest plus amortized principal), greater use of a reserve for repairs and replacements, and stricter earnings' tests governing the issuance of additional *pari passu* revenue bonds. Other significant developments include greater use of subordinated liens (in light of the stricter earnings' tests), a gradual lengthening of the repayment period; and more common use of capitalization of interest out of revenue bond proceeds.

(4) *Lease Rental Municipal Bond Financing*.—This is being carried out in three ways: (1) industrial aid revenue bonds wherein a municipality issues bonds to buy or build a plant and equipment that are

leased to private enterprise (now permitted in some 30 States); (2) lease rental authority financing wherein a nonprofit corporation is created to issue bonds to build a school or other public building, which is then leased to a school district or other local government unit; and (3) public authority financing wherein an authority is established by a city or county to issue bonds for a civic building (courthouse, community center) or stadium, which facilities are then leased to the creating city or county. In all three instances, the lease rentals are set at levels sufficient to repay the bond indebtedness.

(b) *Organizational Structure*

The four chapters on institutional factors in the municipal securities market—bond underwriters, financial advisers, bond counsel and consulting engineers—detail the nature and scope of their duties, qualifications and standards of performance, size and structure of the industry, relationships with borrowers, lenders and other institutional factors, and bases of remuneration. Summarized below are the major findings:

(1) *Municipal bond underwriters* purchase bonds from an issuing public body (usually by winning a competitive bid) and, in turn, the bonds are sold to ultimate investors. In fulfilling this distribution function, the underwriter assumes the risk of possible changes in market prices as well as the costs of distribution, for which he is compensated by the spread (difference) between the underwriters' purchase price and the reoffering sales price to investors. In 1965 there were 388 managing underwriter firms, including 295 investment banking firms and 93 municipal departments of commercial banks. In contrast, there were 932 municipal bond dealers (firms that engage in short-run trading and/or underwriting), including 809 dealer firms and 123 municipal departments of commercial banks.

Dealer syndicates (involving two or more underwriting firms) are usually formed to bid for and distribute municipal securities. About 95 percent of general obligation bond issues and around 60 percent of revenue bond issues are sold through competitive bidding. The average number of competitive bids for new bond issues has exhibited a rising trend during the years 1957-65 for various size bond issues (by dollar amounts). In contrast, the average spread for underwritten issues has steadily declined between 1958 and 1965.

(2) *Municipal financial consultants* provide advisory services to State and local public agencies concerning the planning, development, and selling of a prospective bond issue, particularly the assemblage of relevant financial and economic supporting data, specifications of the bond issue (maturities, bidding requirements, repayment conditions) and timing of the bond sale. Currently there are six nationally recognized independent financial consulting firms; also, about 30 investment banking firms engaged in financial consulting work. Altogether, the six independent firms have about 75 professional employees. Financial consultants are compensated for their services by payment of a fee by the employing municipality, determined either on an annual retainer basis or on the basis of a bond issue, with somewhat higher fees for revenue bonds, as compared to general obligation bonds. Expansion of the financial consulting industry to cope with heavy workloads occasioned by the rising trend of bond issues is hampered by the lack of qualified personnel.

(3) *Municipal bond counsel* renders approving legal opinions regarding validity of new bond issues upon initial sales offering, an opinion most investors require before they will buy municipal bonds. In connection with such an opinion, a bond counsel makes a detailed examination of the constitutional provisions, statutes, court decisions, and other legal proceedings relating to the issuance of the bonds under review; and he prepares the requisite ordinances, resolutions, and trust indentures governing the issuance of the bonds. He also prepares, or reviews, the prospectus or official statement, notice of sale, and attends to the other legal aspects of a bond sale. In 1965 there were some 128 firms that were listed in a directory of bond counsel, including 8 firms located in New York City. Many of these firms concentrate in municipal bond work, while others perform other legal functions as well. Approximately 500 partners and associates of the law firms perform the work of bond attorneys, with 7 firms having at least 10 bond attorneys each. Ordinarily, bond counsel is employed by the public agency issuing the bonds, with remuneration generally related to the size and complexity of the bond issue.

(4) *Consulting engineers* provide a wide variety of services to public bodies that undertake construction of a public facility, including preliminary planning, feasibility studies, engineering design, plans and specifications, construction coordination and supervision, and consultation on special problems. There are about 7,000 to 8,000 firms, employing about 40,000 to 50,000 professional engineers, offering engineering services, including some firms with as many as 1,000 employees. Consulting engineers are usually hired on a firm basis for a particular facility, irrespective of the dollar amount of the bonds to be issued.

### (c) *Problem Areas*

(1) *Secondary Market*.—Any sales of municipal bonds subsequent to the original underwriting and reoffering by the bond underwriters take place in what is called the secondary market. Institutional or individual investors who, because of liquidity needs or for other reasons, wish to dispose of their municipal security holdings can do so in several ways: (1) sell the securities directly to a dealer, (2) arrange with a municipal bond broker, usually through a dealer, to sell the bonds at the best bid, or (3) contract with a dealer to advertise the bonds for competitive bidding over the dealer's name. Many municipal bond dealers operate trading departments which buy, sell, and trade bonds in the secondary market, with the purchases or sales usually for cash. Most municipal bond trading departments operate subject to a "position" limit which determines the maximum amount of bonds which the department may hold at any one time. Brokers never take a "position" in municipal bonds, but, instead, trade bonds for a commission of one-eighth of a point (\$1.25 per \$1,000 bond) and one-fourth of a point (\$2.50 per \$1,000 bond) on odd lots (\$10,000 or less). For 1965, when new issues totaled \$11 billion, the volume of secondary market transactions is estimated at \$22 to \$25 billion.

(2) *Bond Ratings*.—Confronted with a multiplicity of unfamiliar municipal bond issuers, many investors have come to rely upon the bond ratings assigned by the bond rating services. These bond ratings are a graduated listing of bond issues according to an appraisal of investment quality and reflect the considered opinions of the bond rat-

ing services regarding the ability of an issue to withstand default and capital loss over long periods of time. Two of the bond advisory services use letter symbols to measure bond quality, with the highest grade assigned a rating of Aaa, and the third makes qualitative judgments on principal economic and financial factors affecting credit worthiness. Bonds are appraised according to two basic risk factors—the risk that bond quality will be diluted by an inordinate increase in debt and the risk that ability to meet maturing bond principal and interest may be impaired under depressed business conditions. One of the two bond rating services employs 13 people in its municipal bond department and the other employs 12. Of necessity, both rating services limit their efforts to issuers with substantial bonded debt, at least \$600,000 for one service and \$1 million for the other.

Of the approximately 92,000 issuers of municipal bonds, ratings have been assigned to about 20,000, leaving many issuers (generally small) in the nonrated category. A survey of G.O. bonds sold during 1957–61 found that rated bonds accounted for 85 percent of their value, but only 43 percent of the number of issues. Approximately 70 percent of the issues rated by the two services have similar ratings, but the other 30 percent have different ratings. The difference of a notch in a rating, or between similar bonds, one rated and the other unrated, is reflected frequently by 25 to 50 basis points in the interest rate payable by the public borrower. In recent years there has been much discussion regarding (1) the undue dependence by financial institutions upon ratings in determining municipal bond investments, (2) the higher interest costs to borrowing municipalities because of a lowered rating or the absence of a rating, (3) the lack of verified information to support ratings (resulting from a lack of a uniform financial reporting system among the States, reliance upon the issuers to supply their periodic financial data, and inadequate staff to ascertain completeness or biases), and (4) possible conflicts of interest wherein the bond rating services also function as advisers to investors and as consultants to governmental bodies.

(3) *Postwar Default Experience of Municipal Bonds.*—The record of State governments, municipalities, and special districts in meeting their debt obligations in the World War II period has generally been excellent. Two large defaults have occurred in connection with toll revenue projects; and investor losses on other limited liability municipals have resulted from faulty governing legislation and poor planning. Though somewhat reassuring, the postwar experience stands to be marred further by recent marginal financing and others being planned.

(4) *Credit Problems of Small Municipalities.*—Small municipalities tend to pay higher interest rates on their long-term bond issues because of such factors as (a) unfamiliarity by large investors, (b) inadequate financial information supplied to investors and bond analysts, (c) failure to obtain expert advice regarding bond specifications and mechanics of sale, (d) absence of a bond rating, (e) high overhead costs in bond marketing relative to the small size of issue, and (f) relatively small bond size and infrequent sales that lead to unfamiliarity, lack of technical know-how as to bond marketing and comparatively high marketing and advisory costs on a per bond basis. Earlier studies found that small municipalities need help in preparing

economic and financial data to support bond sales, understanding bond terms and comparative advantages of alternative financing techniques, marketing a bond issue and scheduling or programming capital improvements. Six State governments now provide some administrative supervision over municipal debt, borrowing, and fiscal operations; a number of States prescribe minimum standards for notices of bond sale, and filing of financial reports, and also assist in the preparation of capital improvement programs. Federal assistance to facilitate the sale of bond issues by municipalities has been minimal, and the authorized program of technical advisory services to assist municipalities in budgeting, financing, planning and constructing public facilities has never been put into effect.

### 3. *Municipal Bond Interest Rates and Tax Exemption*

#### (a) *Trends in Municipal Interest Rates*

New issue yields of municipal bonds largely result from the interaction of (1) the prevailing yields at the time of similar taxable bonds, (2) the effective income tax rates then applicable to each investor group which determine the value of tax exemption to such groups, (3) the volume of new investable funds flowing to each of these investor groups, (4) the volume of new bond financing desired by States and municipalities at around prevailing yields, (5) expectations regarding future tax rates, volume of tax exempt financing, and flows of new investable funds, and (6) institutional restrictions (laws, customs, liquidity needs) that influence investment decisions.

In the market prevailing in February 1966 tax exemption on municipal securities was advantageous to investors with marginal tax rates above 28 percent, e.g., commercial banks, fire and casualty insurance companies, business corporations, and higher income private investors, which accounted for all of the net increases of municipal bond holdings in recent years. Since the end of 1961, commercial banks have become the dominant buyer of municipal securities. As compared to other net demands for credit, the net volume of new municipal financing has been modest, accounting for about 10 percent during the last 4 years. As compared to private borrowing, where the interest cost is tax deductible (and, hence, partially paid for by the Federal Government), States and municipalities are relatively high cost borrowers.

A crucial yardstick influencing the purchase of tax-exempt bonds is the ratio of municipal bond yields to corporate bond yields of comparable maturity and credit quality, and the relation of this ratio to income tax rates. Between 1946 and 1954 the municipal-corporate yield ratio jumped from 40 percent to 80 percent and then receded to around 75 percent, where it has remained since 1955. Since 80 to 90 percent of all new credit instruments are taxable, it is the taxable yields which dominate bond market trends, and municipal yields adjust accordingly. If there is a rapid increase in the volume of municipal credit demands, the funds of the investor groups now buying might well become inadequate. If so, municipals would have to be repriced—perhaps at yields up to 90 percent of corporate yields. This would mean a 4.50 percent yield for prime municipals, if prime corporates are yielding 5 percent.

Monetary policy action or related rule changes might divert commercial banks away from municipal bonds and thereby would have

an unfavorable effect on the municipal bond market that has recently been dependent on banks for about three-fourths of its new funds. If bank purchases were drastically reduced, it would be difficult to find other buyers, resulting in efforts to sell more municipals to investors in the 20-percent tax bracket. This would raise the municipal-corporate yield ratio—now 75 percent—to perhaps 85 or 90 percent. A rise in this ratio would increase the bonanza of after tax income to investors—institutional, corporate business, or individuals—in the higher income tax brackets.

Historically, rising prime bond yields have coincided roughly with major wars and commodity price inflations. For the next decade, assumptions of no major war, diminution of the Vietnam conflict and related peace efforts, and an end to the superboom of the last 6 years, could lead to a termination of the present bear bond market and a secular trend toward more moderate yields could set in.

(b) *Effect of Credit Conditions on State and Local Bond Sales and Capital Outlays*

Some analysts have concluded that interest rates paid on State and local bonds affect the timing of gross new issues and may have an impact on the amount of issues placed, in the long run. But the latter effect is probably of moderate size, relative to total issues; and after initial impact on borrowing, the States and municipalities tend to adjust their revenue resources to provide for changing interest costs, rather than adjust the volume of their intended borrowing.

A regression model (detailed in ch. 18) explains up to four-fifths of fluctuations in aggregate State and local bond issues around a trend. The interest rate coefficients are interpreted to the effect that State and local borrowers do form and act upon expectations of future interest rates, while buyers of new issues are more influenced by current changes in the spread between yields on municipal bonds and yields on taxable securities.

Also influencing municipal borrowing are Federal grants-in-aid, which have a positive effect, and an index of needs for new construction. The regression study found that the supply of credit funds is positively affected by deviations in the wealth of individuals in the high tax brackets (measured by the ratio of the Standard & Poor's stock price index to total wealth) and increases in the share of total wealth held in the form of time deposits at commercial banks.

(c) *Relative Tax Advantages to Different Investor Groups in Acquiring or Holding Municipal Securities*

The exemption from the Federal income tax accorded to the interest income on obligations of State and local public bodies is of value to investors in such obligations only where their marginal tax rates are higher than one minus the ratio of tax exempt yields to taxable yields of comparable securities. Six of the twelve investor groups reviewed in part 4 frequently find tax exempt securities attractive. They are: commercial banks, fire and casualty insurance companies, nonfinancial corporations, personal trust funds, municipal bond investment funds (which can "pass through" the tax exemption accorded to the interest income) and individuals. Because their effective tax rates are appreciably lower than one minus the ratio of tax-exempt to taxable yields, such investor groups as mutual savings banks, savings and loan asso-

ciations and life insurance companies have little incentive to acquire or hold tax-exempt municipal securities. No tax benefit is derived from investments in municipal securities by such groups as State and local public retirement funds, State and local governments and qualified noninsured pension funds because they are exempt from Federal income taxation.

(d) *Comparison of the Interest Cost Saving and Revenue Loss on Tax-Exempt Securities*

Based on the techniques developed by Ott and Meltzer,<sup>11</sup> it is estimated that for early 1966 the yield differential between the yields on tax-exempt securities and taxable securities of comparable maturity and credit quality ranges between 133 and 186 basis points (one basis point equals one one-hundredth of 1 percent). For gross issues of State and local government securities sold in 1965 the aggregate total interest payments over the life of the debt issued during the year are estimated at \$5 billion. If net interest cost for each issue were to be increased by a minimum of 133 and a maximum of 186 basis points, the aggregate interest payments by State and local governments over the life of the debt would have risen by an estimated range of 37.8 to 52.8 percent, or between \$1.9 and \$2.6 billion.

The aggregate average marginal tax rate (based on the approximate average marginal tax rate for each investor group, weighted by the 1965 distribution of holdings of municipal securities) is estimated at 42 percent. This rate suggests that over the life of the municipal debt issued in 1965 the increase in Federal revenue (if the securities were not tax exempt) would have been \$2.9 billion (if the relevant yield differential were 133 basis points) and interest payments would rise by \$1.9 billion because the interest were taxable. The additional revenue would have been \$3.2 billion (if the relevant yield differential were 186 basis points) and the increase in interest payments would have been \$2.6 billion.<sup>12</sup> These revenue consequences are based on an assumption that the present distribution of holdings would remain unchanged. If tax exemption were to be removed from new municipal securities, accompanied by a rise in yields on such securities, investor groups that now refrain from buying municipals because they find tax exemption of little value, might instead step up their purchases (owing to the higher yields), while some investor groups might withdraw from municipal securities, unless they too find the yields attractive.

### C. SOURCES OF FUNDS

To develop the requisite information on the availability of credit resources for the financing of State and local public facility needs, specific chapters have been prepared for each of the major pools of investment funds or significant investor groups. These include: commercial banks, mutual savings banks, life insurance companies, fire and casualty insurance companies, State and local public retirement funds, State and local governments, nonfinancial corporations, municipal bond investment funds, personal trust funds, and individuals. The only major

<sup>11</sup> David J. Ott and Allen H. Meltzer "Federal Tax Treatment of State and Local Securities" (Washington: Brookings Institution, 1963).

<sup>12</sup> See ch. 20.



institutional investor groups for which there are no chapters are savings and loan associations<sup>13</sup> and noninsured pension funds.<sup>14</sup>

Each of the chapters review, to the extent data are available, the patterns of investments in municipal securities and in obligations issued by private, nonprofit organizations for the years 1946-65. In addition, they provide some projections regarding future investments in these securities during the decade 1966-75.

### 1. *Relating Municipal Security Investments to State and Local Government Capital Outlays*

Those who have had occasion to analyze the municipal securities market and those who have endeavored to compare statistics on municipal bond sales with State and local government debt outstanding or with capital outlays will appreciate that, while all sorts of data are available on these subjects, very little has been done to link the statistics together. Inasmuch as a systematic linkage of the available data on State and local government capital outlays, outstanding indebtedness, municipal bond sales, and holdings of municipal securities by investor group was needed for this study, supplements B and C (which appear at the end of this chapter) have been prepared.

Supplement B presents four tables that trace the relationships of State and local government capital outlays to State and local government indebtedness and to the annual volume of municipal bonds sold. The first table presents estimates of capital outlays that tie in with construction put in place statistics, on a calendar year basis. The second table relates data on annual municipal bond sales to long-term debt issued by State and local governments, which, in turn, is linked to State and local government capital outlays. The third table compares annual long-term debt issued with estimated retirements and outstanding State and local government debt (long term and short term). On the basis of these three tables which deal with the decade 1956-65, the fourth table translates the projected public facility capital requirements for 1966-75, developed in volume 1, into estimated long-term borrowings. These, in turn, are converted into estimated net changes in State and local government debt for each of the years 1966-75.

Since the distributions of holdings of State and local government obligations heretofore published by the Federal Reserve Board and by the Treasury Department are not sufficiently broken down into identifiable investor groups that tie in with the groups surveyed in part 4 of this study, a "new" set of estimated holdings for the years 1946-65 is presented in supplement C. This distribution of holdings differs from existing series in several respects. First, it shows separately the municipal security holdings of such identifiable institutional groups (that are significant investors in municipal securities) as fire and casualty insurance companies, personal trust funds, and municipal bond investment funds. Second, it delineates the holdings of Federal credit agencies and "other identifiable financial institutions" and removes them from the residual category termed "Households and nonprofit organizations." Third, it distinguishes the holdings of State and

<sup>13</sup> The U.S. Savings & Loan League did not comply with the committee's request for a chapter on savings and loan associations.

<sup>14</sup> The Securities and Exchange Commission, which is the best source of knowledge on such funds, indicated that it was unable to comply with the committee's request for a chapter on private, noninsured pension funds.

local public retirement funds from those of State and local governments.

## 2. *Municipal Security Financing: 1946-65*

### (a) *Trends*

State and local government debt outstanding increased from \$15.6 billion at the end of 1946 to \$44.8 billion at the end of 1955, a rise of \$29.2 billion, and to \$100 billion at the end of 1965, a further rise of \$55.2 billion.<sup>15</sup> As detailed in the following two tables, among identifiable investor groups commercial banks have become the largest source of municipal security financing, accounting for 28 percent of the net expansion of State and local government debt between 1946 and 1955 and for 47 percent of the growth during 1956-65. Fire and casualty insurance companies accounted for 14 percent of the net flows during 1947-55 and for 13 percent during 1956-65, personal trust funds accounted for 12 percent during each of the decades, while "individuals and others" (excluding personal trust funds) declined in relative importance from 25 percent during 1947-55 to 17 percent during 1956-65.

During the past 4 years, 1962-65, commercial banks materially stepped up their acquisitions of municipal securities (to a large extent attributable to the effects of the Federal Reserve amendments of Regulation Q in 1961, 1963, and 1964, that raised the maximum interest rate that may be paid on commercial bank time deposits) so that they accounted for 74.9 percent of the net expansion of municipal debt holdings in these years. Owing to the dominant role played by commercial banks as a buyer of municipal securities during 1962-65, the share of the market accounted for by "individuals and others" dropped to 3.7 percent, and the share of fire and casualty insurance companies declined to 9 percent. On the other hand, personal trust funds accounted for 13.4 percent of the net increase in municipal debt outstanding during 1962-65.

Over the past two decades commercial banks have experienced a steady increase in the proportion of loans and investments represented by holdings in municipal securities, with the ratio rising from 3.8 percent in 1946 to 12.1 percent in 1964. Analysis of the municipal security investments by commercial banks<sup>16</sup> finds (a) a growing interest in revenue bonds, (b) a rising trend (especially in recent years) in investments in long-term (maturities over 10 years) municipal securities, and (c) a decline since 1960 in the proportion of municipal security holdings<sup>17</sup> represented by holdings of speculative issues or issues in default.

Owing to their predominant orientation toward mortgages, mutual savings banks have not purchased many municipal securities. Their greatest postwar activity in municipals occurred during the mid-1950's, when municipal securities accounted for about 2 percent of assets. Since then, there has been a marked decrease so that by the end of 1965 mutual savings banks held \$320 million, or only 0.55 percent of assets. Analysis of their investments in municipal securities

<sup>15</sup> Supplement table C4 traces yearend holdings of State and local government obligations by significant identifiable investor groups for each of the years 1946-65.

<sup>16</sup> Detailed in ch. 21.

<sup>17</sup> Of commercial banks subject to examination by the Federal Deposit Insurance Corporation.

finds (a) a favoring of revenue bonds and (b) a preference for high-grade bonds with long maturities.<sup>18</sup>

Life insurance companies have evidenced a somewhat larger investment interest in municipal securities, which accounted for 3.1 percent of assets in 1961. But since, then there has been a noticeable dropoff in both municipal security investments and year-end holdings, with the latter falling to 2.2 percent at the end of 1965.<sup>19</sup> Most life insurance company acquisitions of municipal securities have been in the form of revenue bond purchases (because of the higher yields), with most of the maturities in the 20 to 40 year range. A survey of individual companies indicated that bond ratings do not have a major influence on their municipal security purchases, nor do intended use of proceeds or geographical location of borrower.

TABLE 1.—*Holdings of State and local government obligations by investor groups, 1946-75*

[Dollar amounts in billions]

Investor group	Yearend holdings				Percent change		
	1946	1955	1965	1975	1946-55	1955-65	1965-75
1. Commercial banks.....	\$4.4	\$12.7	\$38.7	\$107.5	189	205	178
2. Mutual savings banks.....	.1	.6	.3	.4	500	(-50)	33
3. Life insurance companies.....	.6	2.0	3.5	3.8	233	75	9
4. Fire and casualty insurance companies.....	.2	4.2	11.4	21.4	2,000	171	88
5. State and local retirement funds.....	.8	2.7	2.6	.5	238	(-4)	(-81)
6. State and local governments.....	1.6	2.5	2.1	1.1	56	(-16)	(-48)
7. Municipal bond investment funds.....	( <sup>1</sup> )	( <sup>1</sup> )	.2	2.6	-----	-----	1,200
8. Personal trust funds.....	3.0	6.7	13.2	33.0	123	97	150
9. Other financial institutions.....	.8	.9	1.6	2.2	13	78	38
10. Other corporations.....	.3	1.2	3.6	6.0	300	200	67
11. Federal credit agencies.....	.4	.7	2.8	5.4	75	300	93
12. Individuals and others.....	3.4	10.6	20.0	27.1	212	89	36
Total <sup>2</sup> .....	15.6	44.8	100.0	211.0	187	123	111

<sup>1</sup> Nonexistent, 1946-60.

<sup>2</sup> Totals may not equal sum of figures due to rounding.

Source : Supplement tables C4 and D1.

<sup>18</sup> See ch. 22.

<sup>19</sup> See ch. 23.

TABLE 2.—*Net flows in State and local government obligations by investor groups, 1946-75*

[Dollar amounts in billions]

Investor group	1946-55		1955-65		1965-75	
	Amount	Percent	Amount	Percent	Amount	Percent
1. Commercial banks .....	\$8.3	28	\$26.0	47	\$68.8	62
2. Mutual savings banks .....	.6	2	(-.3)	(-1)	.1	( <sup>1</sup> )
3. Life insurance companies .....	1.4	5	1.5	3	.3	( <sup>1</sup> )
4. Fire and casualty insurance companies .....	4.0	14	7.2	13	10.0	10
5. State and local retirement funds .....	1.9	7	(-.1)	( <sup>2</sup> )	(-2.1)	(-2)
6. State and local governments .....	.9	3	(-.4)	(-1)	(-1.0)	(-1)
7. Municipal bond investment funds .....			3.2	( <sup>1</sup> )	2.4	2
8. Personal trust funds .....	3.6	12	6.5	12	19.8	18
9. Other financial institutions .....	.1	( <sup>1</sup> )	.7	1	.6	1
10. Other corporations .....	.9	3	2.4	4	2.4	2
11. Federal credit agencies .....	.3	1	2.1	4	2.6	2
12. Individuals and others .....	7.2	25	9.4	17	7.1	6
Total <sup>4</sup> .....	29.2	100	55.2	100	111.0	100

<sup>1</sup> Under 1 percent.<sup>2</sup> Between 0 and -1 percent.<sup>3</sup> Municipal bond investment funds began to operate in 1961.<sup>4</sup> Total may not equal sum of figures due to rounding.

Source: Supplement tables C4 and D1.

For fire and casualty insurance companies, municipal security investments have become increasingly important, accounting for 30 percent of their assets in 1962. Since then, municipal securities as a percentage of assets have decreased to 27.4 percent in 1965. Analysis <sup>20</sup> of municipal security investments by fire and casualty insurance companies finds (a) a rising proportion of such investments in revenue bonds (almost 50 percent in 1965), (b) a tendency to purchase longer maturities (over 10 years), (c) that, while bond ratings are considered by some, many companies prefer to perform their own credit analysis of municipal borrowers, and (d) that intended use of bond proceeds does influence purchases, but geographical location of borrower has little effect.

Through 1960, State and local government public retirement funds continued to increase their holdings of municipal securities, but, since then, municipal holdings have decreased, while assets continued to rise. At the end of 1965 municipals accounted for less than 9 percent of total assets. Analysis <sup>21</sup> of public retirement fund investments in municipal securities finds (a) they are mainly in general obligation issues, with revenue bonds accounting for about 15 percent of investments, (b) a preference for medium-term and long-term issues, (c) neither bond ratings nor intended use of proceeds have been material factors influencing investment decisions, and (d) purchases were made primarily of bonds issued by local municipalities, due to pressures to induce investments in local projects. State and local governments have also experienced a steady decline in municipal security holdings, both in absolute amounts and as a percentage of assets, in recent years. To some extent, these declines have been offset by a rise in State government direct loans to municipalities.<sup>22</sup>

<sup>20</sup> See ch. 24.<sup>21</sup> See ch. 25.<sup>22</sup> Detailed in ch. 26.

A recent innovation in municipal security financing has been the development of municipal bond investment funds. These are registered investment companies, the assets of which are invested in municipal securities.<sup>23</sup> The tax exemption of the interest income on the municipal securities is "passed through" to the holders of the shares in these bond funds, which by the end of 1965 aggregated \$249 million.

While personal trust funds have expanded their holdings of municipal securities over the past two decades, municipal securities as a percentage of assets have varied but little, rising from 10.4 percent in 1946 to 13.2 percent in 1955 and to 13.7 percent in 1965. However, in recent years many of the commercial banks (that administer these personal trusts) have established common trust funds for investments in municipal securities, with the number of such "tax-exempt" funds rising from 24 in 1962 to 104 in 1965. Analysis of personal trust holdings of municipal securities<sup>24</sup> finds (a) an increasing trend in revenue bond investments, (b) considerable investments in maturities of 10 to 20 years, with some investments in maturities over 20 years, (c) while there is some reliance upon bond ratings, most trust departments prefer to do their own credit analysis, and (d) neither intended use of proceeds nor geographical location of borrower have much influence on municipal security investment decisions.

To round out the picture, chapters 29 and 30 present materials on "nonfinancial corporations" and "individuals" as sources of funds for investments in municipal securities. As shown in table C4, "other corporations" have expanded their holdings of municipal securities (mainly short term) from \$0.3 billion in 1946 to \$1.2 billion in 1955, and to \$3.6 billion in 1965. "Individuals and others" (a residual calculated by subtracting all identifiable investor groups from total holdings shown in column 1 of table C4) have grown from \$3.4 billion in 1946 to \$10.6 billion in 1955 and to \$20 billion in 1965.

#### (b) *Portfolio Considerations*

Most of the foregoing investor groups buy municipal securities because they find the tax-exempt yields more attractive than the "after tax" yields obtainable on investments where the income is taxable. These comparative yield considerations come into play after appropriate allowance has been made for what may be called "portfolio considerations."

Commercial banks must necessarily consider their liquidity requirements, the demand for loans from business and consumer borrowers and their legal needs to hold Government securities as collateral for Government accounts. Funds that remain after these needs have been accommodated are then invested in "bonds," with municipal security investments depending upon a comparison of the tax-exempt yields with the bank's particular tax situation (income subject to tax). During periods of credit tightness, since commercial banks generally seek to accommodate their business and consumer customers first, their net expansion in municipal security investments tends to diminish.

Fire and casualty insurance companies similarly have to review their cash flows and income picture as well as comparative yields in

<sup>23</sup> See ch. 27 for a description of these funds.

<sup>24</sup> See ch. 28.

determining whether to buy municipals. These companies necessarily consider whether their insurance underwriting is at a profit (or loss) and the amount of their taxable portfolio income before seeking municipal securities that yield a tax-free income. When, as in recent years, underwriting losses are heavy, many of the companies have less need for tax-exempt income and their purchases of municipals have fallen off correspondingly.

In the case of personal trusts (and, as appropriate, individual investors), comparative yields as contrasted to marginal tax rates is the principal determination governing investments in municipal securities, after due allowance has been made for the expenditure requirements of the income beneficiary (or individual). The higher the tax bracket of the personal trust (or individual investor), the greater is the need for tax-exempt income. Many nonfinancial business corporations, after considering their cash flow requirements, invest a portion of their cash balances in municipals so long as the tax-exempt yield compares favorably to the after tax returns on alternative short-term investments.

For institutional investors such as life insurance companies or mutual savings banks (which have appreciably lower marginal tax rates than high income individuals, most nonfinancial corporations, commercial banks or fire and casualty insurance companies) the prime consideration is a comparison of tax-exempt municipal yields with taxable investment yields. Generally, these institutions have less immediate liquidity or expenditure requirements. In the case of life insurance companies, as detailed in chapter 23, investments in municipals take place if their yields are from 60 to 90 percent of taxable yields (mainly if the ratio is above 80 percent) or if the tax-exempt yield is 50 to 100 basis points lower than the taxable yield.

State and local public retirement funds and State and local governments, because of their tax-exempt status, have little reason to acquire municipal securities when their yields are lower than those on taxable securities. Since the restrictions on investments by these public funds are increasingly being relaxed, there has been a corresponding decrease in their holdings of municipal securities, with an even sharper fall off in new investments. So far, private noninsured pension funds, which, if qualified, are also tax-exempt, have not invested in tax-exempt municipal securities.

### 3. *Projected Municipal Security Financing: 1966-75*

According to the materials presented in volume 1, State and local public agency capital requirements for public facilities for the decade 1966-75 are estimated at \$327.8 billion, of which \$31.6 billion is estimated for 1970 and \$40.7 billion for 1975. With interpolations for the remaining years of the decade, assuming an annual rate of increase of about 5.5 percent, and assuming that the financing patterns during 1956-65 will continue in the following decade,<sup>25</sup> supplement B translates these capital requirements into estimated annual net changes in State and local government debt outstanding. Such annual net changes in debt are projected to rise from \$8.5 billion in 1966 to \$11.3

<sup>25</sup> Long-term borrowing will account for about 50 percent of capital outlays; long-term borrowing for capital outlays represents 92 percent of all long-term borrowing; and the rate of annual debt retirements will rise gradually each year at an incremental rate of 0.05 percent per year from an estimated level of 5.60 percent in 1965. Evaluation of these and other assumptions appear later in the text.

billion in 1975 (see col. 1 of table 3), and by 1975 the outstanding debt is projected at \$198.8 billion.

On the basis of the data furnished in chapters 21 to 30 concerning future holdings of State and local obligations by various investor groups, supplemented by discussions with the respective chapter writers and the analysis of holdings of State and local obligations by investor groups during 1946-65 set forth in supplement C, projected yearend holdings of such obligations for 1966-75 are presented in supplement D. As detailed in table D1, these holdings are projected to rise from \$100 billion at the end of 1965 to \$211 billion at the end of 1975. Annual net changes of these projected holdings (shown in col. 2 of table 3) rise from \$8 billion in 1966 to \$14.3 billion in 1975.

TABLE 3.—*Projected net demand for, and net supply of, State and local government obligations, 1966-75*

[In billions of dollars]

Year	Projected supply <sup>1</sup>	Projected demand A <sup>2 3</sup>	Projected demand B <sup>2 4</sup>
	(1)	(2)	(3)
1966.....	8.5	8.0	7.2
1967.....	8.7	8.8	8.0
1968.....	9.0	9.3	8.6
1969.....	9.3	10.2	9.3
1970.....	9.7	10.8	9.9
1971.....	10.0	11.2	10.3
1972.....	10.3	12.1	11.1
1973.....	10.9	12.6	11.5
1974.....	11.1	13.7	12.6
1975.....	11.3	14.3	13.0

<sup>1</sup> Represent State and local government borrowing requirements (col. 10 of table B4).

<sup>2</sup> Represent funds available for municipal securities.

<sup>3</sup> Annual net change derived from col. 1 of table D1.

<sup>4</sup> Adjustment of commercial banks, personal trust funds, and "individuals and others" (per footnote 28).

In effect, these two sets of projections provide (a) estimated net additions to the supply of State and local government obligations that would be generated by the estimated State and local government public facility capital requirements, and (b) estimated net demands for municipal securities by various investor groups that reflect expected growth patterns of their assets and the proportions to be invested in municipal securities.<sup>26</sup> Comparison of the projections shown in columns 1 and 2 of table 3 indicates that during the decade 1966-75 the demand for municipal securities by various investor groups is expected to be higher than the supply arising from projected public facility capital requirements.<sup>27</sup>

Between 1965 and 1975 State and local government indebtedness is projected to increase by \$111 billion. As shown in the last two columns of table 2, \$68.8 billion, or 62 percent of the expansion, is accounted for by commercial banks; \$19.8 billion, or 18 percent, is accounted for by personal trust funds; \$10 billion, or 10 percent, by fire and casualty insurance companies; and \$7.1 billion, or 6 percent, by "individuals and others." All told, these four investor groups account for 96 percent of the projected increase in municipal securities.

<sup>26</sup> While annual aggregate gross long-term borrowings by State and local governments are also projected, gross acquisitions by each investor group could not be developed owing to the limitations of financial institution data. At the present time municipal security gross acquisitions are available only for life insurance companies and municipal bond investment funds.

<sup>27</sup> Except in 1966.

Conceivably, each of the projections developed in supplement D may be unduly optimistic as to likely municipal security investments by the respective investor groups. Accordingly, the projections for commercial banks, personal trust funds and "individuals and others" (three of the largest) have been revised on the basis of less optimistic assumptions.<sup>28</sup> Under these revised projections, outstanding State and local government debt is projected at \$201.5 billion in 1975 and the annual net demand rises from \$7.2 billion in 1966 to \$13 billion in 1975 (shown in col. 3 table 3). Comparison of the revised annual projected demands with the projected annual net supplies of municipal securities finds that over the 10-year period the demand will still be slightly greater than the supply, but not during 1966-70. Under the revised projections commercial banks would account for \$61.3 billion of the net expansion, or 60 percent of the total, and personal trust funds would account for \$14.8 billion, or almost 15 percent.

From these projections it would seem that long-term borrowing by State and local governments for public facilities during 1966-75 can be successfully financed by capital market resources, if commercial banks continue to acquire most of the municipal securities generated. However, if for any reason<sup>29</sup> there is a slowdown in commercial bank asset expansion or if commercial banks find alternative investments more attractive,<sup>30</sup> then a shortage of credit resources for State and local government debt financing seems likely to develop. As detailed in chapter 17, such a shortage could be alleviated by increasing the yield on tax-exempt municipal securities to a ratio higher than the current 75 percent of the yield on taxable securities, say, to 80-90 percent.

#### 4. *Tax Exemption and Federal Guarantees*

Municipal securities differ from all other credit instruments in one major respect in that the interest income arising from municipal debt is exempt from the Federal income tax. Much has been written or said on whether this tax exoneration is constitutional or statutory, the value of tax exemption to borrowing State and local governments and the revenue losses to the Federal Treasury,<sup>31</sup> the equity effects of such exemptions upon the Federal income tax, and the debilitating effects upon State and local governments, if such exemptions were to be terminated. Each side in the long-continued debate on tax exemption for municipal securities has marshaled an imposing array of arguments, statistics, and related analysis in support of its views; and little purpose would be served in reexamining them in this volume.

Nonetheless, there appears to be one aspect of the tax exemption accorded to municipal securities that has not been thoroughly explored before; namely, the effects of Federal guarantees upon such tax exemption. To shed some light on this subject, the committee questionnaire that served as the outline for chapters 21 to 30 included several questions on the relationships of Federal guarantees to tax exemption for municipal securities. The questions inquired as to the effects of a

<sup>28</sup> For commercial banks the 1975 municipal security holdings are projected at \$100 billion, instead of \$107.5 billion (the lower projection in ch. 21) and for personal trust funds the 1975 holdings are projected at \$28 billion, instead of \$33 billion (the lower projection in ch. 28). In light of the revised statistics presented in supp. C, the annual net expansion of municipal security holdings of "Households" are projected at 0.375 of 1 percent of annual personal income (instead of the 0.4 percent employed in ch. 30).

<sup>29</sup> Such as restrictive credit policies that affect bank reserves or money supply or curtailed expansion of time deposits reflecting changed patterns of savings flows.

<sup>30</sup> Business loans, consumer loans, or mortgage loans.

<sup>31</sup> Current estimates of such benefits and costs are presented in ch. 20.



Federal guarantee in addition to the tax exemption or in lieu of tax exemption. Six<sup>32</sup> of the ten chapters contain commentary that respond to the questions raised.

Each of the six chapters concluded that a Federal guarantee added to tax exemption would increase the credit quality of municipal securities and reduce the yield on the securities. According to the chapter on commercial banks, Federal guarantees might lower municipal interest rates by about 0.25 percent (ranging from 0.11 percent for AAA rated municipal bonds to 0.42 percent for BAA rated bonds). Most of the respondents advised that a reduction of municipal security yields due to a Federal guarantee would make municipal securities less attractive as investments. Confronted with such lower yields many of the surveyed institutions intimated that they would probably turn to alternative investments in taxable securities.

Interestingly, each of the investor groups to whom tax exemption has a value<sup>33</sup> expressed a preference for continuation of the present arrangements without a Federal guarantee so that investors can make their own judgments regarding credit risks and thereby obtain the necessary yield differentials to compensate for such risks. Some responding institutions even contended that a Federal guarantee "would do more harm than good."

With respect to substitution of a Federal guarantee in lieu of tax exemption, each of the responding private investor groups expressed opposition to such an exchange, with the greatest hostility voiced by the commercial banks. According to the canvass of investor reactions (detailed in the respective chapters), if municipal securities were to be guaranteed by the Federal Government, and the interest income were to be taxable, the resultant yield on municipal securities would be around the yield of Federal agency securities or perhaps somewhat higher. Investor groups such as fire and casualty insurance companies and life insurance companies would find yields at these levels unattractive, causing them to turn to alternative investments. On the other hand, public retirement funds would find the higher yields (on "taxable" municipal securities) more attractive, as might mutual savings banks.<sup>34</sup> However, commercial banks and personal trusts, the major sources of municipal credit in the current market, would turn to alternative investments where yields are more attractive.

As might be expected, the investor groups that benefit most from the tax exemption accorded to municipal securities voiced the strongest objections to any intimation of possible removal of such exemption.

The committee questionnaire also inquired as to how municipal securities could be made more attractive to investors. The most emphatic responses called for retention of tax exemption of interest income as the most important attraction. Other suggestions include State guarantees of municipal obligations, more complete economic and financial information to be furnished by borrowing State and local public agencies, uniform municipal accounting and reporting and codification of State laws governing the issuance of municipal securities.

<sup>32</sup> Chapters on commercial banks, mutual savings banks, life insurance companies, fire and casualty insurance companies, public retirement funds, and personal trusts.

<sup>33</sup> All of the investor groups responding, except public retirement funds.

<sup>34</sup> By analogy, one might infer a similar reaction on the part of noninsured pension funds and savings and loan associations, the remaining major pools of loan funds.

### 5. *Obligations of Private, Nonprofit Organizations*

As detailed in supplement A, several questions posed for the chapters on sources of funds dealt with the obligations issued by private, nonprofit organizations. It was hoped that quantitative information could be developed on the extent of investments in such obligations by the major investor groups, coupled with some description of the factors influencing their investments. Unfortunately, aside from life insurance companies and mutual savings banks, such data are not available because the various investor groups do not distinguish obligations of private, nonprofit organizations from other investments.

A survey of 18 life insurance companies found that during 1946-65 they had acquired \$875 million of obligations of private, nonprofit organizations, including \$129 million in 1965. The obligations are being used to finance hospitals, churches, schools, colleges, nursing, retirement or rest homes, college dormitories, office buildings, YM and YWCA's, community buildings, and seminaries. Mortgage notes have been the usual instrument for many of the companies, with bonds less frequently used. The major factors influencing investment decisions have been yield, security of debt service, credit standing, and project feasibility.

During 1950-63, mutual savings banks in New York made \$234 million of mortgage loans to private organizations to finance hospitals, houses of worship, schools, libraries, and fraternal buildings. Some of the fire and casualty insurance companies reported that they buy a few church and hospital bonds. The chapters on public retirement funds and personal trust funds advise that they make some purchases of nonprofit organization obligations, while the chapter on commercial banks advises that data are not available on bank acquisitions of such obligations.

### 6. *Appraisal*

According to the data presented above, during the decade 1966-75 the demand for municipal securities by identifiable investor groups is expected to be higher than the supply of State and local government debt obligations that would be generated by the projected public facility capital requirements of such public agencies during these years. Such a conclusion rests on the following major assumptions: (a) That public facility capital requirements developed in volume 1 fully reflect the Nation's public-facility needs, (b) that housing and urban renewal capital outlays of State and local governments will expand by 5.5 percent per year, (c) that 50 percent of total State and local government capital outlays will continue to be financed by borrowing, (d) that commercial banks will account for over 60 percent of the increased demand for municipal securities, and (e) that all other investor groups will actually acquire municipal securities to the extent projected.<sup>35</sup>

Although considerable data are presented in volumes 1 and 2 to support these assumptions, it does not necessarily follow that they will actually materialize during the next decade. The reader, of course, is free to make alternative assumptions and to adjust the estimates accordingly. In this connection, the following commentary may be helpful.

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<sup>35</sup> Other assumptions include: (a) That long-term borrowing for capital outlays will continue to account for 92 percent of all long-term borrowing, and (b) that the rate of annual debt retirements will rise gradually each year at an annual incremental rate of 0.05 percent.

(a) The aggregate public facility capital requirements presented in volume 1 reflect the considered opinions of a large group of experts, with the underlying assumptions explicitly stated and historical trends fully documented. While one may feel that some of the projections for specific facility categories are either too high or too low, it is conceivable that there may be offsetting adjustments among other categories so that the aggregate capital requirements are hardly changed. Thus, unless it could be shown that there has been a coincidental bias among the over 50 experts, or groups of experts, who prepared the chapters in volume 1, it would seem that the projections developed are reasonable.

(b) To permit this study to be manageable yet sufficiently detailed to serve adequately its intended purposes, it became necessary to distinguish between "public facilities" capital outlays and other capital outlays of State and local public agencies, such as those for public housing and urban renewal.<sup>36</sup> But any meaningful analysis of State and local government indebtedness and the municipal securities market must in some way take into account capital requirements for public housing and urban renewal. Accordingly, an allowance has been made for these capital requirements by assuming that they will grow at the same annual rate as that projected for GNP, i.e., 5.5 percent per year (in current dollars). This growth rate for public housing and urban renewal may be too high or far too low, considering the tremendous needs of the Nation's cities. Or it is conceivable that, while urban development outlays may expand more rapidly, a larger portion may be financed from sources other than borrowing; e.g., State and local government tax resources or Federal grants.

(c) It remains to be seen whether or not State and local governments continue, as they have during the past 14 years, to finance 50 percent of their capital outlays by borrowing. On the one hand, constitutional and statutory limitations on general obligation indebtedness and legislative reluctance to increase taxes may impede the growth of general obligation debt, but rising incomes, sales, and property valuations (and at times higher ratios of assessment) may nonetheless enlarge the debt-incurring capacity of State and local governments. Moreover, the rising trend of revenue bond financing lends further support to the projected growth in borrowing.

As will be recognized, this study did not examine the growth prospects of State and local government tax revenues nor did it consider the possible expansion of Federal grant assistance. Instead, it was assumed that together these resources will continue to finance 50 percent of State and local government capital outlays, with the relative proportions to be determined. To do otherwise would have required a comprehensive analysis of State and local government fiscal resources and alternative ways of providing Federal financial assistance—categorical grants-in-aid, block grants (for broad groups of purposes) or tax sharing. Such analyses were beyond the terms of reference set for the present two-volume study.

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<sup>36</sup> Public housing and urban renewal activities are best examined within the context of "housing and other real estate" inasmuch as public housing is one of several alternative ways to meet our housing needs and publicly financed urban renewal is but one of several routes to achieve urban development (or redevelopment).

(d) The plentiful demand for municipal securities projected largely depends on projected holdings for commercial banks, the dominant force in the municipal securities market. Given the severe jolt to this market occasioned by periods of credit tightness, one may be justifiably concerned about this heavy reliance upon commercial banks. If for any reason commercial banks were to become less active in the municipal market, the apparent sufficiency of demand for municipals could be turned overnight into a shortage.

It should be recognized that by focusing attention upon municipal security holdings and developments within the municipal securities market, this study may have unwittingly induced the participating analysts to lose sight of the credit needs of the other sections of the capital market. While the materials presented in the respective chapters on financial institutions evidence that these alternative needs were considered, it is conceivable that little allowance was made for any large expansion of credit for housing, business, or consumers, or perhaps by the Federal Government, such as might have been made had there been a comparable detailed analysis of these other sectors. Large credit requirements for these other purposes could "crowd out" municipal securities in commercial bank portfolios.

Aside from these alternative loan considerations, there is the possibility that commercial bank asset expansion may be less than projected. Or, it is conceivable that the credit authorities may be reluctant to permit large-scale commercial bank credit expansion, if a sizable portion of the expansion were to be invested in tax-exempt municipal securities.

(e) Similar conjectures may be raised regarding the future investment activity of other investment groups. Or one may inject the possibility of lower Federal income tax rates, which would cause a wholesale reexamination of the value of tax-exempt income to the respective investor groups.

Making projections is a hazardous occupation, albeit necessary, if our economic planners and policymakers are to have some notion of what to expect as the economy continues to grow. But our economy has become so large, and there are so many variables to contend with, that, if we are to study economic forces in detail, we must necessarily do so through a sector-by-sector approach, while making certain assumptions regarding the other sectors.

The present study has endeavored to explore the prospects of the relatively small but vital sector relating to the needs and credit financing of the Nation's infrastructure of State and local public facilities. It is hoped that similar studies will be undertaken for other delineated sectors so that policymakers and economic planners, be they in government, business, labor, or in the academic community, will be able to assess meaningfully their intended decisions or recommendations before they are put into effect, rather than await judgments from subsequent historical reviews.

## SUPPLEMENT A

### Financial Institutions

In order to assure uniform coverage, the writers submitting chapters on financial institution groups in part 4, were requested to follow the standard outline set forth below.

#### CHAPTER OUTLINE

#### INTRODUCTION

Describe briefly the nature of the financial institution to be covered in terms of purpose, functions, number of firms and assets, sources of funds received and relative quantities, and major categories of loans and investments. For this introductory section, 1964 statistical information should be used to the extent available.

#### A. SUPPLY OF CAPITAL FUNDS

1. Trace the annual dollar volume of loans and investments made during the years 1946 through 1965 to finance State and local public works through acquisitions of—

(a) State and local government bonds (municipal securities);

(b) Obligations of private, nonprofit organizations issued to finance such facilities as private hospitals, schools, colleges, nursing homes, community buildings, and other local buildings or facilities operated not for profit.

NOTE.—Acquisitions should be shown on a “gross basis;” and if “gross acquisitions” are not available, use “net change in holdings” of such securities.

2. With respect to the municipal securities acquired—

(a) What were the relative proportions of (1) general obligation bonds, (2) revenue bonds (secured solely by tolls, leases, or user charges), and (3) other bonds (special assessment or limited tax bonds) during these years? If the relative proportions varied, explain the changes.

(b) What maturities are generally purchased—(1) under 1 year, (2) 1 to 5 years, (3) 5 to 10 years, (4) 10 to 20 years, (5) 20 to 40 years? Why?

(c) To what extent are bond purchases influenced by the availability and level of bond ratings assigned by the municipal bond rating services? Are unrated bonds purchased? Are bonds with ratings below the top four ratings purchased? Can these responses be quantified?

(d) To what extent are bond purchases influenced by the intended uses of the bond proceeds? Are there any notable preferences or prejudices?

(e) To what extent are bond purchases influenced by the geographical location of the borrowing city, county, district, or State?

3. With respect to obligations of private, nonprofit organizations—
  - (a) What types of facilities or buildings are generally financed?
  - (b) How are the loans evidenced—in the form of (1) bonds, (2) mortgage notes, (3) other (identify)?
  - (c) To what extent are purchases of such loans influenced by (1) availability of bond ratings, (2) intended use of proceeds, (3) geographical location of borrower, (4) public relations considerations.

#### B. PORTFOLIO CONSIDERATIONS

1. Provide annual statistics for the years 1946-65 showing the proportions of the yearend holdings of loans and investments represented by (a) obligations issued by States and local governments (municipal securities) and (b) obligations issued by private, nonprofit organizations.

(a) Explain the variations, if any.

2. With respect to municipal security holdings,

(a) Are there any guidelines established regarding the proportion of such holdings to the holdings of other loans and investments?

(b) To what extent are municipal securities competitive with mortgage loans in portfolio determinations?

3. Inasmuch as the interest income on municipal security holdings is tax exempt, whereas the interest income on other security holdings is not tax exempt, at what interest rate levels, as compared to the interest rates on taxable loans and investments, are municipal securities attractive as prospective investments?

(a) What is needed to make municipal securities more attractive as investments?

(b) Considering the negligible amount of defaults among municipal borrowers, aside from clearly speculative loans, would a Federal Government guarantee of municipal securities make them more attractive as investments? Why?

(c) If a Federal Government guarantee of municipal securities were available in exchange for making the interest income on such securities subject to the Federal income tax, would such guaranteed securities be attractive as investments? At what level of interest rates—yields obtainable on Federal agency obligations, yields obtainable on AAA rated corporate bonds, or other level (for comparable maturities)? Why?

#### C. PROSPECTIVE LOANS AND INVESTMENT

1. A large part of the capital requirements of the Great Society over the next decade is expected to be financed by security flotations by State and local public bodies and by private, nonprofit organizations.

(a) On the basis of past experience and emerging trends, what amounts (in hundreds of millions of dollars) are likely to be invested during each of the next 10 years, 1966-75, by the institutions under review in (1) municipal securities and (2) obligations issued by private, nonprofit organizations?

(b) What is the basis for these projections?

(c) Under what circumstances can these investments be expanded?

## SUPPLEMENT B

### Relationship of Indebtedness to Capital Outlays for State and Local Governments

At the present time there are no internally consistent statistics relating to State and local government capital outlays, bond sales, and outstanding indebtedness. Instead, there are independently compiled series on (a) capital outlays and construction expenditures (collected by the Governments Division, Bureau of the Census, on a fiscal-year basis); (b) construction put in place (collected by the Construction Statistics Division, Bureau of the Census, on a calendar-year basis); and (c) bond sales and refundings (two different series, both on a calendar basis; one compiled by the Bond Buyer, and the other by the Investment Bankers Association), and debt outstanding, new debt issued, and retirements (collected by the Governments Division, Bureau of the Census, on a fiscal-year basis).

The purpose of this supplement is to ascertain the relationships, if any, among the aforementioned statistical series in order to provide a basis for translating the public facility capital requirements of State and local public agencies for the years 1966-75 into estimated required annual net changes of State and local government indebtedness. Availability of such estimated required annual net changes of indebtedness, when compared to the annual sums of projected net changes of holdings of State and local government obligations developed in supplement D, would provide a measure of the extent to which the capital requirements can be financed by borrowings in the capital market given the existing complex of tax rate, alternative market yield, and institutional portfolio considerations.

This supplement consists of four tables, with appropriate explanation regarding data sources, methodology, and assumptions. These tables are: (1) Estimated Annual Capital Outlays of State and Local Governments, Calendar Years 1956-65; (2) Municipal Bond Sales Related to Capital Outlays, 1956-65; (3) Relationship of Long-Term Debt Issued to Outstanding Debt, 1956-65; and (4) Projected Net Increases in Debt Outstanding, 1966-75.

#### 1. ESTIMATED ANNUAL CAPITAL OUTLAYS, CALENDAR-YEAR BASIS

Table B1 shows the relationship of State and local government construction expenditures to capital outlays for the fiscal years (of the reporting governments) 1956-65, as collected each year by the Bureau of the Census. According to the material presented in chapter 1, the annual construction expenditure figures, as compiled by the Governments Division, and the construction-put-in-place figures, as compiled by the Construction Statistics Division, showed a high degree of historical consistency for the decade 1954-63, after the latter had been converted into annual data for years ending June 30.<sup>1</sup>

<sup>1</sup> Beginning in 1963, the construction-put-in-place statistics for State and local governments have been based on construction expenditures data collected by the Governments Division, Bureau of the Census.

Because the data presented in this volume are largely calendar-year figures, it became necessary to develop capital outlay figures for calendar years. This is done in table B1 by (a) determining the average ratio of construction expenditures to capital outlays for the 2 fiscal years falling in each calendar year, and (b) applying the reciprocals of such average calendar-year ratios to the annual construction-put-in-place data. Since these capital outlay figures embrace public housing and urban renewal as well as the various public facility categories, the estimated proportions of capital outlays accounted for by public housing and urban renewal are also shown.

## 2. MUNICIPAL BOND SALES RELATED TO CAPITAL OUTLAYS

During the years 1956-60 the annual long-term municipal bond sales figures published by the Bond Buyer were higher than those published by the Investment Bankers Association. Since then, the Investment Bankers Association annual bond sales figures have been higher. Inasmuch as both series are based entirely on reported information, there is reason to believe that through 1960 the Bond Buyer data were more comprehensive, and since then IBA data have been more comprehensive. Accordingly, columns 1 to 3 of table B2 show gross bond sales, estimated bond refundings, and net bond sales for the years 1956-65 on the basis of the annual bond sales that are the most comprehensive (larger figures).<sup>2</sup>

Municipal bonds sold toward the end of a calendar year frequently are not delivered until sometime in the next year. To adjust for this timelag, the long-term bond sales, net of refundings, are compared to the annual bond delivery figures, compiled by the Investment Bankers Association,<sup>3</sup> and the resultant figures are shown in column 5 as "net long-term bond issues."

Owing to underreporting to both the Bond Buyer and the Investment Bankers Association, the net long-term bond issue figures do not fully reflect the total volume of long-term indebtedness incurred each year by State and local governments. A measure of this underreporting is revealed by column 6 which shows the annual difference between net long-term bond issues and estimated long-term debt issued (col. 7). The latter figures represent the annual averages of the long-term debt issued for the 2 fiscal years falling in the respective calendar year, as compiled by the Bureau of the Census.<sup>4</sup> The annual difference reflects nonreported (to IBA and the Bond Buyer) competitive bond sales, negotiated sales or private placements (for example, to public retirement or trust funds), and Federal Government loans. For the 9-year period 1956-64 these unreported differences accounted for about 11.5 percent of total long-term debt issued.<sup>5</sup>

Table 6 of chapter 1 provides Census Bureau estimates of the long-term debt issued applicable to capital outlays for fiscal years 1958 through 1964-65. These fiscal-year figures were converted into cal-

<sup>2</sup> For purposes of internal consistency, the bond refunding figures shown are derived from the same respective source as the bond sales data. Refunding bonds are necessarily subtracted from gross sales, since such bonds merely replace existing bonds and therefore do not constitute new capital.

<sup>3</sup> Discontinued by IBA beginning in 1966.

<sup>4</sup> Reported on a fiscal-year basis in Government Finances (table entitled "Indebtedness and Debt Transactions of State and Local Governments").

<sup>5</sup> Average of the annual ratios obtained by dividing col. 6 by col. 7.



endar-year figures by averaging the two fiscal-year figures falling in the respective calendar year; and the respective calendar-year figures are entered in column 8. The differences (col. 9) between total long-term debt issued and long-term debt issued for capital outlays represent long-term debt issued to finance veterans' bonuses, State direct loan programs (for example, for housing) and other noncapital outlay purposes, including increases in undistributed bond funds. For the 7-year period 1958-64 <sup>6</sup> long-term debt issued for capital outlays accounted for 92.6 percent of total long-term debt issued.<sup>7</sup> This relationship ties in with the materials presented in chapter 1, which showed that of the \$110.1 billion of long-term borrowing by State and local governments during the 14 fiscal years from 1952 through 1964-65, \$101.4 billion, or 92.1 percent, was issued to finance capital outlays.

Comparison of the "long-term debt issued for capital outlays" (col. 8) with "estimated capital outlays" (col. 10) for each of the years 1958-64 results in an average ratio of 50.1 percent; that is, about half of State and local government capital outlays are financed by long-term borrowing. This average ratio is fairly close to the 50.4 percent average ratio of capital outlays accounted for by long-term borrowing, reported in chapter 1 (table 6).

### 3. LONG-TERM DEBT ISSUED COMPARED TO OUTSTANDING DEBT

The only reported data on retirements (repayments) of State and local government debt are those compiled by the Census Bureau on a fiscal-year basis. On the assumption that the debt-outstanding figures, as of the beginning of the fiscal-year period (as reported by the Census Bureau), and the reported annual retirements are reasonably consistent with each other,<sup>8</sup> it is possible to derive estimated annual rates of debt retirement (col. 3 of table B3). These fiscal year rates of retirement were then converted into calendar-year rates by averaging the two overlapping fiscal-year ratios (col. 4).

Columns 5-8 of table B3 provide a simple gross flow compilation of State and local government indebtedness on a calendar-year basis. Debt outstanding at the beginning of the calendar year (col. 5) represents the estimates shown in the Federal Reserve "Flow of Funds Accounts." Estimated retirements (col. 7) reflect application of the annual rates of retirement (col. 4) to the beginning of year outstanding debt figures and net changes of outstanding debt (col. 6) are derived by subtractions of column 5 data. The annual sum of "net change" plus "debt retirement" equals "estimated new debt issued" (col. 8).

By definition, "estimated new debt issued" equals new long-term debt issued plus the net change in outstanding short-term debt.<sup>9</sup> Con-

<sup>6</sup> The figures for long-term debt issued for capital outlays for 1956, 1957, and 1965 were estimated by the writer by applying 92.6 percent to the respective annual figures on total long-term debt issued.

<sup>7</sup> Average of the annual ratios obtained by dividing col. 7 by col. 8.

<sup>8</sup> Comparison of annual net change of long-term debt outstanding of State and local governments (by subtraction of successive annual outstanding-debt figures) with derived annual net-change figures (long-term debt issued less long-term debt retired) finds a number of disparities. Similar disparities are found when the comparisons are made for State governments or local governments separately.

<sup>9</sup> There is no Bureau of the Census tabulation of new short-term debt issued.

ceptually one might expect that total new debt issued each year would exceed new long-term debt issued by a small amount—reflecting slight increases in outstanding short-term debt. However, this has not always been the case over the past 10 years. Comparison of long-term debt issued (col. 9) with total new debt issued (col. 8) results in differences that range from \$1 billion to a negative \$1.2 billion (col. 10). To some extent, fluctuations of these annual differences reflect increases or decreases in outstanding short-term debt and, to some extent, the fluctuations are due to statistical discrepancies that arise from the manner of Census Bureau tabulations.<sup>10</sup>

Be that as it may, the algebraic sum of the differences between total new debt issued and new long-term debt issued for the entire 10-year period 1956–65 is calculated as a negative \$1.7 billion (algebraic sum of col. 10). A discrepancy of about \$170 million per year would seem to be reasonable, considering the magnitudes of the new debt issued each year and the margins of error allowable because many of the Census Bureau figures are based on sample surveys.

#### 4. PROJECTED NET INCREASES IN DEBT OUTSTANDING, 1966–75

The capital requirements for public facilities by State and local public agencies for the decade 1966–75 are estimated<sup>11</sup> at \$327.8 billion, of which \$31.6 billion is estimated for 1970 and \$40.7 billion for 1975. Estimates for the remaining years of the decade have been interpolated, assuming an annual rate of increase of about 5.5 percent. These estimates are shown in column 1 of table B4. Since by definition public housing and urban renewal are excluded from “public facilities,” an appropriate allowance has to be made for public housing and urban renewal capital requirements in order to obtain total capital requirements of State and local public agencies. This is done in column 2 by assuming an annual rate of increase of 5.5 percent from the 1965 level of capital outlays for housing and urban renewal (per table B1). Total capital requirements of State and local governments are shown in column 3.

On the basis of the experience during 1958–64, it is assumed that long-term borrowing (col. 4) will account for about 50 percent of annual capital outlays (requirements). Conversely, it is assumed that 50 percent of the rising trend of capital requirements will be financed by increases in State and local government tax and other revenue resources and in Federal grants-in-aid (the mix being indeterminate).

It is further assumed that long-term borrowing for capital outlays will continue to account for about 92 percent of total long-term borrowing and that the discrepancy between long-term borrowing and total new debt issued will average \$170 million per year. Application of these two assumptions results in estimates of total long-term borrowing (col. 5) and new debt issued (col. 6). The rate of annual debt retirements is expected to rise gradually each year at an incremental rate of 0.05 percent per year, i.e., 5.60 percent in 1965, 5.65 percent in 1966, 5.70 percent in 1967, etc.

<sup>10</sup> Adjustments are not made in prior year tabulations for debt, that had been previously outstanding, but is reported for the first time in the current year.

<sup>11</sup> See introduction and summary chapter of vol. 1.

Columns 7-11 of table B4 present estimated gross flows of State and local government debt for the years 1966-75, based on the assumptions set forth above. As will be noted, total new debt issued, reflecting the estimated capital requirements, is expected to rise from \$14.2 billion in 1966 to \$22.7 billion in 1975 and the net change in outstanding debt is estimated to grow from \$8.5 billion in 1966 to \$11.3 billion in 1975. Outstanding State and local government debt is estimated at \$198.8 billion at the end of 1975, compared to \$100 billion estimated for the end of 1965.

TABLE B1.—*Estimated annual capital outlays of State and local governments, calendar year basis, 1956-65*

[Dollar amounts in millions]

Year	Fiscal year data <sup>1</sup>			Calendar year data			
	Capital outlays	Construction expenditures	Ratio (percent)	Ratio <sup>2</sup> (percent)	Construction put in place <sup>3</sup>	Estimated capital outlays <sup>4</sup>	Housing and urban renewal <sup>5</sup>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1956.....	\$11,407	\$9,355	82.0	82.2	\$10,006	\$12,173	\$260
1957.....	12,616	10,386	82.3	83.0	11,086	13,357	330
1958.....	13,986	11,704	83.7	83.3	12,069	14,489	380
1959.....	15,351	12,723	82.9	82.4	12,346	14,933	470
1960.....	15,104	12,352	81.8	82.0	12,241	14,928	580
1961.....	16,091	13,214	82.1	81.6	13,269	16,261	700
1962.....	16,791	13,625	81.1	80.9	13,956	17,251	810
1963.....	17,946	14,481	80.7	80.7	15,356	19,029	780
1964.....	19,087	15,389	80.6	79.8	16,455	20,658	760
1965.....	20,771	16,417	79.0	<sup>6</sup> 79.0	18,046	22,843	<sup>6</sup> 780

<sup>1</sup> Fiscal year basis, approximately for year ending June 30, as reported in Governmental Finances. (See ch. 1.)

<sup>2</sup> Average of ratios in col. 3 for fiscal years overlapping in calendar year.

<sup>3</sup> As reported in Construction Review (compiled by Construction Statistics Division, Bureau of the Census). Beginning in 1963 data based on new definitions and data source.

<sup>4</sup> Col. 5 divided by col. 4.

<sup>5</sup> Average of capital outlays for "Housing and Urban Renewal" (per ch. 1) for overlapping fiscal years.

<sup>6</sup> Estimated.

TABLE B2.—Long-term State and local government capital outlays related to municipal bond sales, calendar year data, 1956-65

[In millions of dollars]

Year	Long-term bond sales <sup>1</sup>			Adjustments <sup>2</sup>	Net long-term bond issues <sup>3</sup>	Other long-term debt <sup>4</sup>	Long-term debt issued			Estimated capital outlays <sup>8</sup>
	Gross bond sales	Estimated refundings	Sales net of refundings				Total <sup>5</sup>	For capital outlays <sup>6</sup>	For other purposes <sup>7</sup>	
1956.....	5,446	76	5,370	300	5,670	1,141	6,811	<sup>9</sup> 6,307	504	12,173
1957.....	6,958	60	6,898	-390	6,508	813	7,321	<sup>9</sup> 6,779	542	13,357
1958.....	7,449	143	7,306	259	7,565	441	8,006	7,684	322	14,489
1959.....	7,681	59	7,622	-258	7,364	687	8,051	7,414	637	14,983
1960.....	7,230	53	7,177	-128	7,049	969	8,018	7,383	635	14,928
1961.....	8,498	103	8,395	-197	8,198	540	8,738	7,915	823	16,261
1962.....	8,737	280	8,457	-5	8,452	1,228	9,680	8,871	809	17,251
1963.....	10,331	1,409	8,922	165	9,087	1,517	10,604	10,187	417	19,029
1964.....	10,646	646	10,000	-577	9,423	1,823	11,246	10,120	1,126	20,658
1965.....	11,265	585	10,680	273	10,953	<sup>9</sup> 1,423	<sup>9</sup> 12,376	<sup>9</sup> 11,460	916	22,843

<sup>1</sup> 1956-60, Bond Buyer data; 1961-65, Investment Bankers Association (IBA) data.<sup>2</sup> Adjustments for issues offered in calendar year before issuance; differences between col. 1 and bond deliveries (IBA data).<sup>3</sup> Algebraic sums of cols. 3 and 4.<sup>4</sup> Difference between cols. 7 and 5.<sup>5</sup> As reported in Governmental Finances (table entitled "Indebtedness and debt transactions of State and local governments"), figures are averages for fiscal year data overlapping in respective calendar year.<sup>6</sup> For 1958-64, ch. 1, table 6, converted into calendar year figures by averaging fiscal year data overlapping in respective calendar year.<sup>7</sup> Difference between cols. 7 and 8.<sup>8</sup> Col. 5 of table B1.<sup>9</sup> Estimated.

TABLE B3.—Relationship of outstanding State and local debt to net long-term debt issues, 1956-65

[Dollar amounts in millions]

Year	Fiscal year data <sup>1</sup>			Calendar year data				Long-term debt issued <sup>7</sup>	Col. 8 minus col. 9 <sup>8</sup>	
	Debt outstanding <sup>2</sup>	Retirements	Ratio (per cent)	Ratio <sup>3</sup> (per cent)	Debt outstanding <sup>4</sup>	Net change	Estimated retirements <sup>5</sup>			Estimated new debt issued <sup>6</sup>
1956.....	\$44,267	\$2,351	5.3	5.0	\$44,800	\$5,100	\$2,240	\$7,340	\$6,811	\$529
1957.....	48,868	2,315	4.7	4.9	49,400	4,600	2,421	7,021	7,321	(-300)
1958.....	53,039	2,716	5.1	5.0	53,900	4,500	2,695	7,195	8,006	(-811)
1959.....	58,187	2,839	4.9	5.0	58,800	4,900	2,940	7,840	8,051	(-211)
1960.....	64,110	3,222	5.0	5.0	63,700	4,900	3,185	8,085	8,018	(-67)
1961.....	69,955	3,458	4.9	4.9	68,700	5,000	3,366	8,366	8,738	(-372)
1962.....	75,023	3,695	4.9	5.1	75,500	6,800	3,851	10,651	9,680	971
1963.....	80,802	4,227	5.2	5.3	82,500	7,000	4,373	11,373	10,604	769
1964.....	87,451	4,643	5.3	5.4	88,000	5,500	4,752	10,252	11,246	(-994)
1965.....	92,222	5,045	5.5	<sup>9</sup> 5.6	93,900	5,900	5,258	11,158	12,376	(-1,218)

<sup>1</sup> As reported in Governmental Finances.<sup>2</sup> Outstanding at beginning of fiscal year.<sup>3</sup> Average of ratios in col. 3, for fiscal years overlapping in calendar year.<sup>4</sup> Outstanding at beginning of calendar year (Federal Reserve "flow of funds" data).<sup>5</sup> Col. 4 times col. 5.<sup>6</sup> Sum of cols. 6 and 7 (represents all State and local government debt).<sup>7</sup> Col. 7 of table B2.<sup>8</sup> Net changes in short-term debt plus statistical discrepancy;<sup>9</sup> Estimated.

TABLE B4.—*Translation of estimated capital requirements for public facilities into estimated State and local government debt, 1966-75*

[In billions of dollars]

Year	Public facility capital requirements <sup>1</sup>	Housing and urban renewal <sup>2</sup>	Total capital requirements <sup>3</sup>	Long-term debt for capital outlays <sup>4</sup>	Long-term debt issued <sup>5</sup>	Total new debt issued <sup>6</sup>	Beginning balance <sup>7</sup>	Estimated retirements <sup>8</sup>	Total new debt issued <sup>9</sup>	Net change <sup>7</sup>	Year-end balance <sup>7</sup>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1966.....	25.5	0.8	26.3	13.2	14.4	14.2	100.0	5.7	14.2	8.5	108.5
1967.....	26.9	.9	27.8	13.9	15.1	14.9	108.5	6.2	14.9	8.7	117.2
1968.....	28.3	.9	29.2	14.6	15.9	15.7	117.2	6.7	15.7	9.0	126.2
1969.....	29.8	1.0	30.8	15.4	16.7	16.6	126.2	7.3	16.6	9.3	135.5
1970.....	31.6	1.0	32.6	16.3	17.7	17.6	135.5	7.9	17.6	9.7	145.2
1971.....	33.5	1.1	34.6	17.3	18.8	18.6	145.2	8.6	18.6	10.0	155.2
1972.....	35.1	1.1	36.2	18.1	19.7	19.5	155.2	9.2	19.5	10.3	165.5
1973.....	37.4	1.2	38.6	19.3	22.0	20.8	165.5	9.9	20.8	10.9	176.4
1974.....	39.0	1.3	40.3	20.2	22.0	21.8	176.4	10.7	21.8	11.1	187.5
1975.....	40.7	1.3	42.0	21.0	22.8	22.7	187.5	11.4	22.7	11.3	198.8

<sup>1</sup> Per vol. 1, interpolated on assumed annual rate of increase of 5.5 percent.<sup>2</sup> Assumed annual rate of increase of 5.5 percent of 1965 volume.<sup>3</sup> Sum of cols. 1 and 2.<sup>4</sup> Calculated at 50 percent of col. 3 (per table B2).<sup>5</sup> Calculated by multiplying col. 4 by reciprocal of 92 percent.<sup>6</sup> Col. 5 less \$170,000,000.<sup>7</sup> Computed through gross flow tabulation.<sup>8</sup> 5.6 percent in 1965; thereafter annual rate of retirement increased by 0.05 percent per year.<sup>9</sup> Col. 6.

## SUPPLEMENT C

**Holdings of State and Local Government Obligations**

The basic source for all statistics on total State and local government debt outstanding is the annual compilation made by the Governments Division, Bureau of the Census of the Department of Commerce. The total debt outstanding figure represents indebtedness of all State and local governments, including cities, towns, special districts, and public authorities; that is, what is commonly called "municipal securities." Included within the total debt figure are both long-term and short-term debt, interest-bearing and non-interest-bearing.

Data on State governments are based on reports from all 50 States and data on local governments are based on reports from a sample of local governments now numbering over 10,000 units, classified by type and size, including complete coverage of cities with populations in 1960 exceeding 25,000 and special districts with debt of \$1 million or more in 1962. Aside from the sampling variability possibility,<sup>1</sup> these Census Bureau data are subject to a major weakness in that there is no common reporting date. Instead, all of the data, including the debt statistics, relate to the reporting government's fiscal year that ends within the period of review. Through 1963 the period of review was prescribed as the calendar year and since then it has been the 12 months ending June 30.

Data received by the Census Bureau cover all indebtedness of State and local governments, whether to private lenders, to the Federal Government, State government, or to public trust funds. In its tabulation, however, the Census Bureau excludes certain items that upon examination are not really indebtedness in the sense of being a firm commitment to repay. Loans where repayment is conditional are thus excluded. Accordingly, the total debt figures do not include Department of Housing and Urban Development advances for public works planning (where repayment is required only if construction is started) or for urban renewal planning (where repayment is required only if the project is undertaken). Similarly, California State loans for school buildings are excluded because repayment is contingent upon an assessment of ability to pay.<sup>2</sup>

The Bureau of the Census furnishes an annual total State and local government debt figure to the Treasury Department and to the Office of Business Economics, adjusted to June 30. The figure supplied to Treasury excludes non-interest-bearing debt and the figure supplied to OBE includes the non-interest-bearing debt. The Flow of Funds Section of the Board of Governors of the Federal Reserve System converts the Census compiled total debt figure into a calendar year-end figure by adding the net new issues of municipal securities (gross sales less estimated refinancings and retirements) for the third and fourth calendar quarters. The Capital Markets Branch of the Securities and Exchange Commission employs a similar technique to esti-

<sup>1</sup> From time to time Census reports uncover debt referred to for the first time that had been outstanding in previous years. These figures are incorporated into the current year tabulation, but corresponding adjustments are not made in earlier year total debt figures.

<sup>2</sup> According to "Moody's Municipal and Government Manual" (1966 issue), of the \$448.4 million of debt service paid by the State through June 1965 on bonds issued for school building loans, \$193.2 million, or 41 percent, came from repayments of school building loans.

mate a yearend State and local government debt figure (used internally, especially for the quarterly estimates of savings by individuals). Table C1 contrasts the four published<sup>3</sup> estimates of outstanding State and local government debt.

Holdings of municipal securities (State and local government debt) by type of institution are estimated by the Treasury Department, Federal Reserve Board and the Securities and Exchange Commission (the latter unpublished). The Treasury-estimated distribution of holdings, as of June 30, shows holdings of (a) commercial banks, (b) U.S. Government investment accounts, (c) individuals (including personal trust accounts), (d) insurance companies, (e) mutual savings banks, (f) corporations (excluding banks and insurance companies), (g) State and local governments (including retirement funds) and (h) miscellaneous investors (including savings and loan associations, noninsured pension funds, dealers and brokers, foreign investors). At the request of the Joint Economic Committee, several of these ownership groups were broken down into components; for example, (1) State and local government retirement funds as distinguished from other State and local governments, (2) life insurance companies as distinguished from fire and property insurance companies, (3) a notation that municipal bond investment funds are included under "other corporations" and (4) estimated 1964 holdings by personal trust accounts and savings and loan associations. The Treasury estimates for 1946-65 are presented in table C2. Under the Treasury system of estimation there are three residual categories: other corporations, individuals, and miscellaneous.

As part of its flow of funds accounts, the FRB-estimated distribution, as of December 31, shows holdings of (a) households and nonprofit organizations, (b) business corporations, (c) commercial banks, (d) mutual savings banks, (e) life insurance companies, (f) other insurance companies (including fire and property insurance and fraternal orders), (g) brokers and dealers (termed "finance n.e.c."), and (h) State and local governments (including public retirement funds). The FRB estimates for 1946-65 are presented in table C3. Under the FRB system of estimation, there is one residual category—households and nonprofit organizations. Inasmuch as there is no separate category showing municipal security holdings by Federal credit agencies, it follows that they are included in the residual category "households and nonprofit organizations." The SEC method of distribution of municipal security holdings has not been published, but it is understood that it follows the methodology used by FRB; that is, to allocate the estimated total outstanding debt among identifiable groups and to assign the residual, including any statistical discrepancy, to "individuals."

The 1946-65 trends and projections of municipal security acquisitions during 1966-75 called for by the Joint Economic Committee study relate to 12 categories of investor groups: (a) commercial banks, (b) mutual savings banks, (c) savings and loan associations, (d) life insurance companies, (e) fire and casualty insurance companies, (f) State and local public retirement funds, (g) State and local governments, (h) noninsured pension funds, (i) personal trust funds, (j)

<sup>3</sup> Published respectively in "Governmental Finances," "Annual Report of the Secretary of the Treasury," "Federal Reserve Bulletin," "Survey of Current Business" (May issue).

municipal bond investment funds, (*k*) nonfinancial corporations, and (*l*) individuals. Since the distributions estimated by the Treasury or FRB are not sufficiently broken down to fit the foregoing 12 categories, it became difficult to appraise the data presented in the chapters of the study dealing with sources of loan funds. Accordingly, a tabulation was made of municipal security holdings of identifiable institutional groups that fit the categories used in the study, Federal credit agencies, and other identifiable groups.<sup>4</sup> This tabulation is presented in table C4.

One objective of table 4 is to relate, as much as possible, to published reported data. Inasmuch as the balance sheet data for most private financial institution groups relate to the end of the calendar year, table 4 has been prepared on a calendar-year basis. For the public agencies that hold municipal securities (State and local public retirement funds, State and local governments and Federal credit agencies), their fiscal year data has been converted into December 31 figures on the basis of reported statistics or by straight-line interpolation. Where the year-end figures represent reported information, they are stated to the nearest \$1 million. Where the year-end figures represent interpolations or estimates based on samples, they are stated to the nearest \$10 million (except "other corporations" where the figures are estimated to the nearest \$100 million).

Table C4 comprises three elements: (*a*) total year-end holdings of State and local government obligations, as estimated in the FRB "Flow of Funds Accounts,"<sup>5</sup> (*b*) year-end holdings for significant identifiable financial institution or public agency groups, the sum of which when subtracted from the year-end total results in (*c*) a residual grouping termed "individuals and others." Although it is believed that "individuals" account for most of the residual category, it should be recognized that the category also includes investor groups for which there is presently inadequate definite information such as college endowment funds, noninsured pension funds, savings bank life insurance companies, and others.<sup>6</sup>

Because of their different fund resources, treatment under the Federal income tax law, and consequent portfolio policies, life insurance companies and fire and casualty insurance companies are shown separately. Similarly, municipal bond investment funds (where investment decisions are made by the fund managers) and personal trust funds (where the investment decisions are largely made by the trust departments of commercial banks) are shown separately, as compared to "individuals" (many of whom invest on their own account).

As explained in the source note, the holdings of Federal credit agencies are based on reports of the respective credit agencies, including the Departments of Housing and Urban Development, Interior,

<sup>4</sup> Nine of these institutional groups appear in the Bankers Trust Co. Investment Outlook annual tabulation of municipal security net flows. Many of them also are used in the sources and uses of funds tabulations prepared by Salomon Bros. & Hutzler and by the Life Insurance Association of America.

<sup>5</sup> The only publicly available estimate of total calendar year-end holdings of State and local government obligations, including non-interest-bearing obligations, as collected by the Census Bureau.

<sup>6</sup> According to a June 30, 1963, survey conducted by the Office of Education, Department of Health, Education, and Welfare, college endowment funds held \$257.8 million of securities issued by State and local governments, Federal agencies and foreign borrowers. According to Goldsmith, Lipsey, and Mendelson "Studies in the National Balance Sheet of the United States" (vol. II), noninsured pension funds, savings bank life insurance companies and group health insurance companies held minor amounts of municipal securities during the middle 1950's.



Agriculture, and Treasury. The aggregate figures shown in column 12 materially differ from the "Government investment accounts" figures in the Treasury estimated distribution (table C2), mainly because the Treasury does not count as part of State and local government debt (a) non-interest-bearing obligations (owed to the Bureau of Reclamation) and (b) borrowing for college housing by State universities and colleges (owed to the Department of Housing and Urban Development).<sup>7</sup>

Delineation of State and local public retirement funds from "State and local governments" facilitates appraisal of two essentially dissimilar sources of loan funds. Public retirement funds, like noninsured pension funds (or insured pension funds) are concerned principally with longer term investments. In contrast, "State and local governments" comprise (a) treasury funds, undisbursed bond proceeds, and bond sinking funds (which are primarily concerned with short-term investments), (b) other insurance, endowment and trust funds (which are concerned, to a considerable extent, with longer term investments) and (c) State government direct loan programs to municipalities. State government direct loans have risen from about \$30 million in 1950 to about \$150 million in 1960, and to about \$240 million in 1965.<sup>8</sup>

There are a number of financial institution groups, which hold relatively small amounts of municipal securities, on which there are fairly good statistics. Rather than show each separately, they are combined under a heading "Other identifiable financial institutions" and include: fraternal orders, brokers and dealers, face amount investment companies, and savings and loan associations. As future research uncovers good statistics on municipal security holdings of other identifiable financial institutions (i.e., college endowment funds), they can be transferred from the residual category to this separate category where the holdings have been reasonably approximated.<sup>9</sup>

<sup>7</sup> C.f. Treasury Bulletin (June 1966), p. 141.

<sup>8</sup> Detailed in ch. 4. Where the funds for these "State and local government" resources result from capital market borrowing, there is a double counting problem, e.g., (a) the private holders of the bonds financing the construction funds or the direct loans and (b) the public funds or agencies that hold municipal securities or loans.

<sup>9</sup> The distribution of bond holdings of fraternal orders is based on a sample, as reported to the New York State Department of Banking. Holdings of "brokers and dealers" are based on the total offerings shown in the Blue List. Municipal security offerings in the Blue List ordinarily are by investment banking dealers, but sometimes include offerings by commercial banks. According to an official of the Blue List, offerings by dealers are generally of their own holdings (in which they have a "position" or unsold inventory), but may include holdings of other investors. Moreover, a dealer may not offer in the Blue List all that he holds, especially during periods of credit tightness when heavy capital losses could occur in selling bonds with coupon interest rates appreciably lower than prevailing market yields. Data for savings and loan associations are available only for 1964 and 1965 (June). Data for earlier years are based on straight line interpolation.

TABLE C1.—Comparative estimates of outstanding State and local government debt

[In millions of dollars]

	Census <sup>1</sup>	Treasury <sup>2</sup>	Federal Reserve <sup>3</sup>	OBE <sup>4</sup>
1946.....	15,917	15,626	15,600	15,900
1947.....	16,825	16,529	17,000	16,800
1948.....	18,656	18,354	19,000	18,700
1949.....	20,875	20,481	21,700	20,900
1950.....	24,115	23,722	24,700	24,200
1951.....	27,040	26,592	27,200	27,000
1952.....	30,100	29,111	29,900	29,600
1953.....	33,782	32,200	34,200	32,700
1954.....	38,931	37,300	39,700	37,900
1955.....	44,267	42,600	44,800	43,200
1956.....	48,868	47,400	49,400	48,000
1957.....	53,039	51,840	53,900	52,500
1958.....	58,187	56,500	58,800	57,200
1959.....	64,110	61,675	63,700	62,400
1960.....	69,955	66,425	68,700	67,100
1961.....	75,024	71,730	75,500	72,500
1962.....	80,802	80,131	82,500	80,900
1963.....	87,451	85,900	88,000	86,700
1964.....	92,222	91,300	93,900	92,200
1965.....	99,512	97,800	100,000	98,700

<sup>1</sup> For fiscal years ending in calendar year (1946-63); thereafter for fiscal years ending in year ending June 30<sup>2</sup> Interest-bearing debt, as of June 30.<sup>3</sup> As of Dec. 31.<sup>4</sup> Interest plus non-interest-bearing debt, as of June 30.

TABLE C3.—Holdings of State and local government obligations—Flow of funds accounts data

[In billions of dollars]

	Households <sup>1</sup>	Corporate non-financial business <sup>2</sup>	State and local governments <sup>3</sup>	Commercial banks	Mutual savings banks	Life insurance companies	Other insurance companies <sup>4</sup>	Security brokers and dealers	Total holdings
1946.....	7.2	0.3	2.4	4.4	0.1	0.6	0.2	0.3	15.6
1947.....	7.6	.4	2.5	5.3	.1	.6	.3	.2	17.0
1948.....	8.5	.4	2.6	5.7	.1	.9	.5	.3	19.0
1949.....	9.3	.5	3.1	6.5	.1	1.1	.8	.3	21.7
1950.....	9.6	.5	3.6	8.1	.1	1.2	1.1	.4	24.7
1951.....	10.4	.6	3.8	9.2	.1	1.2	1.4	.4	27.2
1952.....	11.5	.7	4.0	10.2	.3	1.1	1.9	.2	29.9
1953.....	13.5	.8	4.3	10.8	.4	1.3	2.6	.4	34.2
1954.....	15.2	1.0	4.7	12.6	.6	1.8	3.4	.3	39.7
1955.....	18.6	1.2	5.1	12.7	.6	2.0	4.2	.3	44.8
1956.....	21.6	1.3	5.6	12.9	.7	2.2	4.9	.1	49.4
1957.....	23.6	1.5	6.1	13.9	.7	2.4	5.6	.2	53.9
1958.....	23.8	2.0	6.6	16.5	.7	2.7	6.2	.2	58.8
1959.....	25.7	2.6	7.0	17.0	.7	3.2	7.2	.3	63.7
1960.....	28.7	2.4	7.2	17.6	.7	3.6	8.1	.4	68.7
1961.....	31.6	2.2	7.3	20.3	.7	4.0	9.1	.3	75.5
1962.....	34.2	1.8	6.8	24.8	.5	4.0	9.8	.5	82.5
1963.....	33.8	2.7	6.0	30.0	.4	3.9	10.6	.5	88.0
1964.....	36.4	2.9	5.3	33.5	.4	3.8	10.8	.7	93.9
1965.....	37.2	3.6	5.0	38.5	.3	3.5	11.4	.5	100.0

<sup>1</sup> Includes nonprofit organizations serving individuals.<sup>2</sup> Includes holding companies and closed end investment companies.<sup>3</sup> Includes State and local retirement funds, trusts, and sinking funds.<sup>4</sup> Includes fire and casualty insurance companies and insurance activities of fraternal orders.

Source: 1946-51, "Flow of funds; assets and liabilities, 1945-65" (May 3, 1966, version), table 24; 1952-65, Federal Reserve Bulletin (October 1966) pp. 1539-1546.

TABLE C2.—Estimated ownership of State and local interest-bearing securities outstanding, June 30, 1946-65

[In billions of dollars]

Fiscal year	Total	State and local governments			Other investors								
		Total	Public retirement funds <sup>1</sup>	Other <sup>2</sup>	Total	Commercial banks	Mutual savings banks	Life insurance companies	Fire and property insurance companies	Other corporations <sup>3</sup>	Individuals <sup>4</sup>	Government investment accounts	Miscellaneous <sup>5</sup>
1946.....	15.7	2.4	1.0	1.4	13.4	4.1	0.1	0.6	0.3	0.4	7.0	0.5	0.4
1947.....	16.6	2.4	1.0	1.4	14.1	5.0	.1	.6	.3	.4	6.9	.5	.4
1948.....	18.4	2.5	1.1	1.4	15.9	5.6	.1	.7	.4	.4	7.7	.5	.5
1949.....	20.5	2.7	1.3	1.4	17.8	6.0	.1	.9	.7	.5	8.8	.4	.5
1950.....	23.8	3.5	1.6	1.9	20.3	7.4	.1	1.1	1.1	.5	9.2	.4	.5
1951.....	26.7	3.7	1.6	2.1	23.0	8.6	.1	1.2	1.3	.6	10.1	.6	.6
1952.....	29.3	3.9	1.7	2.2	25.4	9.9	.2	1.1	1.7	.6	10.5	.7	.6
1953.....	32.3	4.2	1.9	2.3	28.1	10.6	.4	1.2	2.3	.7	11.6	.7	.6
1954.....	37.4	4.5	2.1	2.4	32.9	12.0	.5	1.6	3.0	.9	13.8	.3	.7
1955.....	42.8	4.9	2.5	2.4	37.9	12.8	.7	2.0	3.8	1.1	16.4	.3	.8
1956.....	47.6	5.3	2.9	2.4	42.3	13.0	.7	2.1	4.5	1.4	19.5	.2	.9
1957.....	52.1	5.8	3.3	2.5	46.3	13.4	.7	2.3	5.1	1.5	22.0	.2	1.0
1958.....	56.8	6.4	3.7	2.7	50.4	15.8	.7	2.5	5.7	1.5	22.8	.3	1.1
1959.....	62.0	6.8	4.1	2.7	55.2	17.0	.7	3.0	6.5	1.7	24.6	.3	1.3
1960.....	66.4	7.1	4.4	2.7	59.3	16.8	.7	3.3	7.8	1.7	27.2	.3	1.5
1961.....	71.7	7.4	4.5	2.9	64.4	18.8	.7	3.8	8.8	1.9	28.3	.4	1.6
1962.....	80.1	7.2	4.3	2.9	72.9	23.2	.6	4.0	9.7	2.4	30.7	.5	1.8
1963.....	85.9	6.4	3.9	2.5	79.5	27.9	.5	4.0	10.5	2.6	31.7	.6	1.8
1964.....	91.3	5.6	3.2	2.4	85.7	31.5	.4	3.9	11.1	2.7	33.7	.6	1.8
1965.....	97.8	5.0	2.8	2.2	92.8	36.6	.4	3.7	11.5	3.0	35.0	.8	1.8

<sup>1</sup> Estimated on the basis of "fiscal yearend" data.  
<sup>2</sup> Includes State and local government treasury funds, bond sinking funds, insurance, endowment, and trust funds.  
<sup>3</sup> Includes municipal bond investment funds from June 30, 1962, to date in the following amounts: June 30, 1962, less than \$50,000,000; June 30, 1963, \$100,000,000; June 30, 1964, \$100,000,000; and June 30, 1965, \$200,000,000. Cumulative sales of participation in these funds totaled about \$125,000,000 through December 1964 and rose by an additional \$100,000,000 during 1965.  
<sup>4</sup> Includes personal trust accounts which have generally accounted for around 1/4 of individuals' holdings of these securities. The most recent estimates available indicate that in 1964 trust institutions held approximately \$12,000,000,000 in these accounts.  
<sup>5</sup> Includes savings and loan associations. Insured State chartered associations held about \$100,000,000 on Dec. 31, 1964. Prior to October 1964, Federal savings and loan associations were not permitted to invest in municipal bonds.

Source: Office of the Secretary of the Treasury, Office of Debt Analysis.

TABLE C4.—Holdings of State and local government obligations as of Dec. 31  
[In millions of dollars]

Year	Total holdings	Com- mercial banks	Mutual savings banks	Life insurance companies	Fire and casualty insurance companies	State and local retirement funds	State and local govern- ments	Municipal bond in- vestment funds	Personal trust funds	Other identifiable financial institutions	Other corpora- tions	Federal credit agencies <sup>1</sup>	Indi- viduals and others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1946.....	15,600	4,395	58	614	237	800	1,600	-----	3,030	760	300	400	3,400
1947.....	17,000	5,276	57	609	315	900	1,600	-----	3,110	680	400	400	3,700
1948.....	19,000	5,619	73	872	544	900	1,700	-----	3,190	740	400	400	4,600
1949.....	21,700	6,500	93	1,052	828	1,100	2,000	-----	3,270	730	500	500	5,100
1950.....	24,700	8,118	96	1,152	1,144	1,600	2,100	-----	3,950	860	500	500	4,800
1951.....	27,200	9,198	140	1,170	1,448	1,600	2,200	-----	4,610	900	600	500	4,800
1952.....	29,900	10,188	325	1,153	1,871	1,800	2,220	-----	5,270	760	600	570	5,100
1953.....	34,200	10,821	428	1,298	2,619	2,070	2,330	-----	5,410	1,000	700	620	6,900
1954.....	39,700	12,586	608	1,846	3,402	2,390	2,450	-----	6,130	790	900	660	7,900
1955.....	44,800	12,698	646	2,038	4,195	2,730	2,480	-----	6,650	890	1,200	690	10,600
1956.....	49,400	12,901	676	2,273	4,919	3,120	2,490	-----	7,250	810	1,300	780	12,900
1957.....	53,900	13,915	685	2,376	5,533	3,540	2,590	-----	7,830	930	1,500	890	14,100
1958.....	58,800	16,505	729	2,681	6,279	3,950	2,720	-----	7,790	910	2,000	1,080	14,200
1959.....	63,700	16,958	721	3,200	7,222	4,230	2,720	-----	7,790	1,140	2,700	1,300	15,700
1960.....	68,700	17,570	672	3,588	8,237	4,370	2,740	-----	9,100	1,270	2,500	1,470	17,200
1961.....	75,500	20,345	677	3,888	9,175	4,230	2,730	20	9,950	1,220	2,400	1,750	19,100
1962.....	82,500	24,755	527	4,026	10,052	3,780	2,510	53	10,800	1,450	2,100	2,030	20,400
1963.....	88,000	29,786	440	3,852	10,840	3,300	2,300	80	11,640	1,480	2,800	2,200	19,300
1964.....	93,900	33,533	391	3,774	11,148	2,910	2,230	149	12,200	1,690	3,100	2,560	20,200
1965.....	100,000	38,655	320	3,530	11,382	2,600	2,100	229	13,200	1,570	3,600	2,760	20,000

<sup>1</sup> Preliminary estimates.

SOURCES (IDENTIFIED BY COLUMNS)

(1) Federal Reserve Board "Flow of funds accounts," yearend figures (October 1966 revision).

(2) Federal Reserve Bulletin, "Loans and Investments of Commercial Banks" (call report data).

(3) National Association of Mutual Savings Banks, "National Fact Book" (table 34, May 1966).

(4) Life Insurance Association of America, "Life Insurance Fact Book" (yearend holdings).

(5) (a) 1946-55, Roland I. Robinson, "Postwar Market for State and Local Government Securities" (p. 215).

(b) 1956-65, Best's "Aggregates and Averages," adjusted per chapter explanation.

(6) (a) 1946-51, proportion of State and local governments figures in Federal Reserve Board "Flow of funds accounts" (ranging from 36 to 41 percent).

(b) 1952-65, Bureau of the Census, "Employee retirement systems of State and local governments," table on cash and security holdings, fiscal year data converted to December figures by straight line interpolation.

(7) (a) 1946-51, proportion of State and local governments figures in Federal Reserve Board "Flow of funds accounts" (balance after deducting col. 6).

(b) 1952-65, Bureau of the Census "Governmental finances," table on cash and security

holdings, fiscal year data (balance after deducting retirement fund figures shown in col. 6) converted to Dec. 31 figures.

(8) Derived from data in ch. 27, data as of Dec. 31.

(9) Derived from data in ch. 28, data as of Dec. 31.

(10) Includes holdings of (a) fraternal orders (United States and Canadian); (b) brokers and dealers (Blue List); (c) currency dealer (American Express Co.); (d) face amount investment companies; and (e) savings and loan associations; based on Federal agency tabulations.

(11) Largely nonfinancial business corporations, but also includes consumer, sales, and business finance companies; figures estimated by Securities and Exchange Commission.

(12) Includes holdings by Departments of Housing and Urban Development (loans for college housing (public institutions), public facilities, mass transit and urban renewal); Commerce (loans for public facilities); and Interior (Bureau of Reclamation loans and repayment contracts) and indebtedness of the Washington, D.C., government (owed to various Federal agencies). Holdings by Department of Agriculture (soil and water loans to public bodies) not available.

(13) Residual includes individuals, college endowment funds, noninsured pension funds, group health insurance companies, savings bank life insurance companies, and other investor groups.

## SUPPLEMENT D

### Projected Holdings of State and Local Government Obligations, 1966-75

Materials presented in chapters 21 to 30 provide an array of projections and related commentary concerning the future holdings of State and local government obligations by various investor groups. Some are stated in terms of estimated holdings in 1975 (commercial banks and personal trust funds), some are stated in terms of annual net flows (mutual savings banks, fire and casualty insurance companies, and "individuals"), and some are suggestive as to the likely course of holdings (downward), but they do not present quantitative data (State and local public retirement funds, State and local governments). Where the materials in the respective chapters do not deal with future holdings, subsequent discussion with the chapter authors or trade association officials provided a basis for this writer to make appropriate projections (life insurance companies, municipal bond investment funds, and other corporations).

Altogether, these various sources furnish a framework of investor group data, which could be woven into a projected structure of holdings of State and local government obligations for the years 1966-75 by these 10 investor groups.<sup>1</sup> Essentially, the projections involve, where there are projected holdings in 1975, an annual proration of the computed net change in holdings between 1965 and 1975, assuming an annual rate of increase of 5.5 percent, or estimates of annual net expansion of holdings during the years 1966-75, based on extrapolations of recent expansion (or contraction) experience. The actual methodology for each investor group is described in the text below. The projected holdings of the investor groups for the years 1966-75 are presented in table D1.

It should be noted that the projections for each investor group were made independently of the other projections. While each may be internally consistent with respect to growth trends and distributions of assets invested in municipal securities, it is conceivable that in the aggregate they result in total holdings of municipal securities that are more optimistic than might otherwise be projected, had there been a comprehensive projection of sources and uses of capital funds for all investor groups.

#### 1. COMMERCIAL BANKS

At the end of 1965 commercial bank loans and investments totaled \$306.1 billion, of which \$38.7 billion, or 12.6 percent, were accounted for by municipal securities. According to the materials presented in chapter 21, by 1975 total loans and investments are expected to increase to \$475 billion, including \$115 billion of municipal securities, or 24.2 percent of total loans and investments, on the basis of performance during the years 1944-64. If, however, projections are based on the experience of 1954-64, by 1975 total loans and investments would be \$525 billion, and municipal securities would be \$100 billion. Averaging these two projections, it is estimated that by 1975 total loans and

<sup>1</sup>To round out the picture, it is assumed that "other identifiable financial institutions" and Federal credit agencies will expand their holdings by the same annual amounts experienced in 1961-65.

investments would amount to \$500 billion, of which \$107.5 billion, or 21.5 percent, would reflect holdings of municipal securities.

During the years 1961-65, when commercial banks experienced a considerable expansion of savings inflows and lending activity, the average annual rate of increase of loans and investments was 8.9 percent and holdings of municipal securities grew at an average annual rate of 17.1 percent. If the commercial bank situation at the end of 1975 were to be projected at these annual rates of increase, total loans and investments would amount to \$659 billion, of which municipal security holdings would be \$160 billion, or 24.3 percent. On the other hand, during the years 1956-60 the average annual rates of increase for commercial banks were more moderate, with a 4.4-percent annual rate for total loans and investments and 6.9 percent for municipal securities. At these annual rates of increase, by 1975 total loans and investments would amount to \$471 billion and municipal securities would be \$75 billion.

Assuming that these two spans of recent experience provide a rough approximation of the upper and lower limits for projections to 1975, the projections provided in chapter 21 appear to be reasonable, and the averages of the two projections have been used accordingly. It should be recognized that implicit in these projections are certain assumptions regarding the flow of savings (assumptions that were made prior to the recent legislative and administrative actions concerning interest rates paid on savings), the extent to which our economy becomes a "checkless society" (which would affect the volume of demand deposits) as well as rates of growth and alternative lending opportunities.

## 2. MUTUAL SAVINGS BANKS

Since 1958 mutual savings banks have progressively reduced their holdings of municipal securities so that at the end of 1965 they amounted to \$320 million (compared to \$729 million in December 1958). In the first 9 months of 1966 the banks reduced their municipal security holdings further by another \$50 million. According to the material presented in chapter 22, for mutual savings banks municipal bond flows will continue to average below \$100 million annually. In light of these factors, it is estimated that mutual savings bank holdings of municipal securities will grow very slowly over the next decade to reach \$400 million at the end of 1975 (\$300 million in 1970). In part, this increase is attributable to the effects of the 1962 change in the Internal Revenue Code as it affects these banks. Should these tax considerations become more important, mutual savings banks might acquire more municipal securities.

## 3. LIFE INSURANCE COMPANIES

At the end of 1965 assets of all U.S. life insurance companies aggregated \$158.9 billion, of which \$3.5 billion, or 2.2 percent, were invested in municipal securities. Analysis of the growth trends of life insurance company assets indicates that by 1975 total assets may reach \$300 billion. Some informed analysts believe that, owing to the attractiveness of alternative investments, the proportion of life insurance company assets accounted for by municipal securities will decline to about 1.3 percent.

During the years 1963-65 life insurance companies have decreased their holdings of municipal securities by an annual average of \$165 million, and during the first 6 months of 1966 their holdings of municipal securities declined by another \$315 million. Given the tight money situation for many insurance companies in the balance of 1966 and during much of 1967, there is reason to expect that by the end of 1967 their holdings of municipals will have dropped to \$2.9 billion. Because of alternative investment opportunities, further decline in holdings of municipals may be expected through 1969, but thereafter life insurance companies are expected to step up their acquisitions of municipal securities (because of comparatively more attractive yields) so that their holdings are expected to total \$3.8 billion at the end of 1975.

#### 4. FIRE AND CASUALTY INSURANCE COMPANIES

According to the materials presented in chapter 24, stock fire and casualty insurance companies may be expected to increase their holdings of State and municipal securities at an annual rate of about 6 percent, or by amounts ranging from almost \$470 million in 1966 to \$790 million in 1975. In the case of the mutual companies, estimated purchases of municipal securities were stated in terms of "\$10 million per year, or 5 percent of admitted assets will go each year into tax-exempt municipals, or that about 30 to 50 percent of their portfolios would be invested in municipals." Of the independent companies, 14 companies responded that "they would be likely to invest in excess of \$100 million each year for the next 10 years, and our members could purchase between \$500 and \$750 million of municipal securities in each of the next 10 years."

During the decade 1954-63 fire and casualty insurance companies added to their holdings of municipal securities at an average annual rate of \$822 million. In 1964 and 1965, owing to heavy underwriting losses, the average annual rate of increase in holdings of municipal securities fell to \$271 million. Taking into account the complex of projections set forth above, and assuming a resumption of a more normal underwriting loss experience, it is estimated that the net expansion in holdings of municipal securities by fire and casualty insurance companies will rise progressively from about \$0.7 billion in 1966 to \$1.3 billion in 1975.

#### 5. STATE AND LOCAL PUBLIC RETIREMENT FUNDS

Holdings of municipal securities by State and local government public retirement funds rose progressively to reach a high of \$4.4 billion in 1961, and thereafter they have steadily decreased to a level of \$2.7 billion in 1965. Significantly, municipal security holdings as a percentage of total assets have declined moderately during the 1950's, from 26.3 percent in 1952 to 23.4 percent in 1960, but since then the ratio has fallen sharply to 8.6 percent in 1965. As explained in chapter 25, "this ratio has steadily declined as the funds broadened their investment authority, particularly those of larger size, extending its scope to include corporate bonds, federally insured and conventional mortgages and equities."

As chapter 25 further notes, "present indications are that further decreases will occur in State and municipal securities held by these

funds. These decreases will be due to the cessation of additional investments in these bonds and by a conversion of municipal securities into other types and higher yielding securities, a continuation of the trend in effect during the last 10 years. \* \* \* We may look for a continuance of the downward trend in the holdings of the bonds by these funds resulting from sales or maturities." Thus, while assets of the public retirement funds are expected to rise from \$32 billion in 1965 to \$35 billion in 1975,<sup>2</sup> their holdings of municipal securities may be expected to decrease by about \$0.2-0.3 billion per year during most of the coming decade.

#### 6. STATE AND LOCAL GOVERNMENTS

Between 1955 and 1965 total assets of State and local governments (excluding public retirement funds) expanded from \$32.9 to \$53.4 billion, a rise of 62 percent. Over the same period total security holdings (total assets less unemployment compensation funds, cash and deposits) of these State and local governments grew from \$14.2 billion, or 43 percent of total assets, to \$26.5 billion, or 50 percent of total assets. During this decade total security holdings increased by 87 percent. In contrast, holdings of municipal securities rose from \$2.5 billion in 1955 to \$2.7 billion in 1960, but declined thereafter to reach \$2.2 billion in 1965. The ratio of municipal securities to total assets decreased over the decade from 7.5 percent in 1955 to 4.1 percent in 1965, while the ratio of municipal securities to total security holdings dropped from 17.3 to 8.3 percent over the same period.

Over the 6-year period, 1960-65, total assets of State and local governments (excluding public retirement funds) grew at an average annual rate of 7.4 percent, and total security holdings expanded at an average annual rate of 8 percent. Assuming the same rate of growth over the decade, 1966-75, it is estimated that State and local government assets may reach over \$100 billion at the end of 1975, of which over 50 percent will be accounted for by holdings of securities. Despite these large expansions of asset and security holdings, it is believed that relatively little, if any, will be invested in municipal securities, because the tax exemption accorded to these securities is of no value to State and local governments. (See discussion in ch. 26.)

Over the past 5 years, State and local government holdings of State and local government obligations declined at an average annual rate of \$124 million. When allowance is made for the fact that during these 5 years State direct loans to local governments expanded by about \$100 million, the average annual rate of decrease in holdings of marketable municipal securities was thus about \$150 million. After allowance is made for a moderate expansion of the State direct loan programs, it is estimated that State and local governments will decrease their holdings of State and local government obligations by about \$100 million per year during the decade 1966-75.

<sup>2</sup> Daniel M. Holland, "Private Pension Funds, Projected Growth" (Occasional Paper 97 of the National Bureau of Economic Research, 1966) estimates that in 1975 total assets will amount to \$74 billion.



#### 7. MUNICIPAL BOND INVESTMENT FUNDS

Since their inception in 1961, municipal bond investment funds have grown rapidly to reach \$229 million at the end of 1965, including sales of \$80 million in 1965. In 1966, sales of these funds are expected to total \$60 million, the decline attributable to the prevailing tight money situation. But, according to the author of chapter 26, under more normal conditions sales in 1966 might have increased to \$100 million. For the years 1967-71 he estimates that bond investment fund sales would increase at an annual rate of 25 percent, and during 1972-75 sales would grow at an annual rate of 20 percent to reach a level exceeding \$600 million in 1975. Redemptions of the investment funds, which amounted to 0.5 percent in 1964 and 1 percent in 1965, are expected to grow at an incremental rate of 0.5 percent per year until 1973 when they would level off at 5 percent. Taking into account these rates of growth for sales and redemptions, municipal bond investment funds outstanding at the end of 1975 are estimated at \$2.4 billion, an increase of \$2.2 billion during the decade of 1966-75.

#### 8. PERSONAL TRUST FUNDS

Holdings of municipal securities by personal trust funds rose from \$3 billion in 1946 to \$6.7 billion in 1955 and \$13.2 billion in 1965. According to the projections presented in chapter 28, "by 1975 the holdings of personal trusts should be somewhere between \$28 and \$38 billion, meaning an increase of from \$1.4 to \$2.3 billion per year. The average of these two projections (each reflecting extrapolation of a trend) suggests that by 1975 personal trust funds may be expected to hold \$33 billion of municipal securities."

As explained in the chapter, "between 1955 and 1963 there was a 91-percent increase in the number of taxpayers in the \$25,000 to \$49,999 income class and a 71-percent increase in the number of taxpayers in the \$50,000 to \$99,999 class. This increase in the number of individuals in the higher income tax brackets will very likely continue and perhaps accelerate. This, of course, will mean that the tax-exempt feature of State and local government bonds will be important to more and more taxpayers. It is reasonable to assume also that as personal incomes rise and the number of persons in the higher brackets increases, there will be an increase in the number of personal trusts created and, therefore, more funds will come under the investment direction of trust departments."

#### 9. OTHER IDENTIFIABLE FINANCIAL INSTITUTIONS

Over the 5-year period 1961-65 other identifiable financial institutions (fraternal orders, brokers and dealers, American Express Co., face amount investment companies, and savings and loan associations) together increased their holdings of municipal securities at an annual rate of \$60 million. For the purpose of this 10-year projection, it is assumed that a similar rate of increase will be experienced during 1966-75 to bring the total holdings of these collective groups to about \$2.2 billion at the end of 1975.

## 10. OTHER CORPORATIONS

At the end of 1965 "other corporations" held an estimated \$3.6 billion of municipal securities. According to informed analysts, after taking into account alternative investment possibilities for corporate funds, these "other corporations" can be expected to increase their holdings of municipal securities to \$4.8 billion in 1970 and to \$6 billion in 1975. The resultant net increase in holdings of municipal securities projected for the decade 1966-75 equals the net increase in holdings of municipal securities by "other corporations" during the decade 1956-65. The expected increase in holdings have been prorated for the intervening years on a straight-line basis; i.e., \$240 million per year.

## 11. FEDERAL CREDIT AGENCIES

Over the 5-year period 1961-65 Federal credit agency holdings of obligations of State and local governments increased at an average annual rate of \$260 million. For the purposes of this 10-year projection, it is, therefore, assumed that Federal credit agency holdings of State and local government obligations will expand by \$260 million per year to reach about \$5.4 billion at the end of 1975.

## 12. INDIVIDUALS AND OTHERS

During the years 1952-65 the net change in holdings of State and local government obligations by the households and nonprofit sector (in the flow of funds accounts) ran at the rate of 0.4 of 1 percent of annual personal income. According to chapter 30 (and subsequent discussion with its author), this pattern may be expected to continue. Annual personal income can be estimated by the equation  $Y=3.752+0.7827 \text{ GNP}$ .<sup>3</sup> Gross national product, in turn, under one of the basic assumptions governing this study is assumed to increase at an annual rate of 5.5 percent (in current dollars). These relationships and assumptions are reflected in the following table:

[In billions]

Year	Gross national product	Personal income	Net change of holdings by households of municipal securities
1966.....	\$718.7	\$566.3	\$2.3
1967.....	758.2	597.2	2.4
1968.....	799.9	629.9	2.5
1969.....	843.9	664.3	2.7
1970.....	890.3	700.6	2.8
1971.....	939.3	739.0	3.0
1972.....	991.0	779.5	3.1
1973.....	1,045.5	822.1	3.3
1974.....	1,103.0	867.1	3.5
1975.....	1,163.7	914.6	3.7

<sup>3</sup> Ch. 1 of vol. 1.

By definition, the households and nonprofit sector comprises three groups of holders of municipal securities, as developed in supplement C, municipal bond investment funds, personal trust funds, and "individuals and others." As detailed above, independent estimates have been made for the first two groups regarding their future holdings of municipal securities. Subtraction of their respective net change figures from the figures in the last column of the above table result in estimated net change in holdings of municipal securities by "individuals and others."

TABLE D1.—*Projected holdings of State and local government obligations by significant investor groups, 1966-75*

(In billions)

Year	Total holdings	Com- mercial banks	Mutual savings banks	Life insurance companies	Fire and casualty insurance companies	State and local public re- tirement funds	State and local govern- ments	Municipal bond in- vestment funds	Personal trust funds	Other identi- fiable financial institu- tions	Other corpora- tions	Federal credit agencies	Indi- viduals and others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1966-----	\$108.0	\$44.1	\$0.3	\$3.1	\$12.1	\$2.3	\$2.0	\$0.3	\$14.7	\$1.6	\$3.8	\$3.0	\$20.7
1967-----	116.8	49.7	.2	2.9	12.9	2.0	1.9	.4	16.3	1.7	4.1	3.3	21.4
1968-----	126.1	55.6	.2	2.8	13.8	1.7	1.8	.5	18.0	1.8	4.3	3.5	22.1
1969-----	136.3	61.9	.3	2.7	14.7	1.5	1.7	.7	19.8	1.8	4.6	3.8	22.8
1970-----	147.1	68.5	.3	2.8	15.7	1.3	1.6	.9	21.7	1.9	4.8	4.1	23.5
1971-----	158.3	75.5	.3	2.9	16.7	1.1	1.5	1.2	23.7	1.9	5.0	4.3	23.5
1972-----	170.4	82.9	.3	3.0	17.8	.9	1.4	1.5	25.8	2.0	5.3	4.6	24.9
1973-----	183.0	90.7	.3	3.2	18.9	.7	1.3	1.8	28.0	2.1	5.5	4.8	25.7
1974-----	196.7	98.9	.4	3.5	20.1	.6	1.2	2.2	30.4	2.1	5.8	5.1	26.4
1975-----	211.0	107.5	.4	3.8	21.4	.5	1.1	2.6	33.0	2.2	6.0	5.4	27.1

## NOTES (IDENTIFIED BY COLUMN)

- (1) Sum of cols. 2 to 13.  
 (2) \$68,800,000,000 net increase in holdings (\$107,500,000,000 in 1975 less \$38,700,000,000 in 1965) prorated over 10 years, assuming 5.5 percent annual rate of increase.  
 (3) Estimated net decreases of holdings of \$70,000,000 in 1966 and \$30,000,000 in 1967 and thereafter net increases of holdings of \$20,000,000 per year.  
 (4) Estimated net decreases of holdings of \$430,000,000 in 1966, \$200,000,000 in 1967, and \$100,000,000 each in 1968 and 1969; thereafter net increases of holdings at annual increments of \$50,000,000.  
 (5) Estimated net increase in holdings rising from \$700,000,000 in 1966 to \$1,000,000,000 in 1970 and \$1,300,000,000 in 1975.  
 (6) Estimated net decrease in holdings of \$300,000,000 during 1966-68, \$200,000,000 during 1969-73, and \$100,000,000 in 1974-75.  
 (7) Estimated net decrease in holdings of \$100,000,000 per year, 1966-75.  
 (8) Estimated net increase of \$50,000,000 in 1966, and rising trend of increases from \$120,000,000 in 1967 to \$470,000,000 in 1975.  
 (9) \$19,800,000,000 net increase in holdings (\$330,000,000,000 in 1975 less \$13,200,000,000 in 1965) prorated over 10 years, assuming 5.5 percent annual rate of increase.  
 (10) Estimated net increase by \$60,000,000 per year.  
 (11) Holdings estimated at \$4,800,000,000 in 1970 and \$6,000,000,000 in 1975, or an annual increase of \$240,000,000 per year.  
 (12) Estimated net increase by \$260,000,000 per year.  
 (13) Calculated as a residual by subtracting cols. 8 and 9 from annual increase in holdings of "Households and nonprofit organizations" (see text).

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PART I. TRENDS IN PUBLIC FACILITY FINANCING

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## CHAPTER 1

# State and Local Government Financing of Capital Outlays, 1946-65\*

### INTRODUCTION

State and local governments have expended approximately \$220 billion for capital outlay during the past 20 years, or about \$1,135 per person of the present population of the United States. The following pages summarize trends in such expenditure, and provide some background and estimates with respect to its financing.

The data given here are mainly from annual surveys of governmental finances conducted by the Bureau of the Census, or from the 1957 or 1962 Censuses of Governments. There was no regular survey to provide comprehensive annual data on local government expenditures before 1952, although earlier Census Bureau surveys did deal with finances of State governments and of some municipalities. Accordingly, most of the historical comparisons given here are limited to the period since 1952. It should be noted that, except for the census years 1957 and 1962, the local government amounts included are estimates subject to sampling variation. (See also the concluding section, "Sources and Limitations of Data".)

The financial scale of State and local governments has increased dramatically during the past two decades. As illustrated by table 1, below, the rise in expenditure and indebtedness of these governments has markedly outpaced related trends in Federal Government finances.

TABLE 1.—Selected items of governmental finances for specified years, 1946 to 1964-65

	1946	1952	1957	1962	1964-65
PER CAPITA AMOUNTS					
Total expenditure:					
Federal Government.....	472.93	457.62	477.74	610.19	671.04
State and local governments.....	99.99	197.34	277.78	379.61	448.68
Capital outlay:					
Federal Government.....	( <sup>1</sup> )	111.49	94.93	99.14	68.15
State and local governments.....	9.28	47.55	73.70	90.33	107.17
Debt outstanding:					
Federal Government.....	1,915.06	1,656.76	1,580.30	1,604.18	1,636.97
State and local governments.....	113.14	192.46	309.83	437.24	513.43
INDEX OF PER CAPITA AMOUNTS (1952=100)					
Total expenditure:					
Federal Government.....	103	100	104	133	147
State and local governments.....	51	100	141	192	227
Capital outlay:					
Federal Government.....	( <sup>1</sup> )	100	85	89	61
State and local governments.....	20	100	155	190	230
Debt outstanding:					
Federal Government.....	116	100	95	97	99
State and local governments.....	59	100	161	227	267

<sup>1</sup> Not available.

\*Prepared by Allen D. Manvel, Chief, Governments Division, Bureau of the Census, Department of Commerce, with minor editing by committee staff.

## CAPITAL OUTLAY IN RELATION TO TOTAL STATE-LOCAL EXPENDITURE

Capital outlay has made up about one-fourth of all expenditures of State and local governments during recent years. For example, total expenditure of these governments in their fiscal years that ended between July 1964 and June 1965 amounted to \$87.0 billion. Of this sum, \$20.8 billion, or 23.9 percent, was for capital outlay, including \$16.4 billion for new construction, \$2.5 billion for the purchase of land and existing structures, and \$1.8 billion for the purchase of equipment.

Also included in the 1964-65 expenditure total was \$5.0 billion of benefit and withdrawal payments by "insurance trust systems" of State and local governments, principally employee retirement systems and State unemployment compensation systems. Because of the special nature of such expenditures, and especially the strong responsiveness of unemployment compensation payments to business cycle changes, insurance trust amounts are best omitted when one reviews trends in the relation of capital outlays to aggregates of State-local expenditure, as summarized in table 2, which is based on appendix table A.

TABLE 2.—*Capital outlay of State and local governments in relation to total State and local government expenditures, 1946 to 1964-65*

Fiscal year <sup>1</sup>	Capital outlay (millions of dollars)			Percent of total expenditures (excluding insurance trust amounts)		
	State and local governments	States	Local governments	State and local governments	States <sup>2</sup>	Local governments <sup>2</sup>
1964-65.....	20,771	9,175	11,596	25.3	22.2	21.0
1963-64.....	19,087	8,820	10,267	25.3	23.1	20.3
1963.....	17,946	8,110	9,836	25.4	23.0	20.7
1962.....	16,791	7,214	9,577	25.6	22.4	21.5
1961.....	16,091	6,865	9,226	26.1	22.9	21.9
1960.....	15,104	6,607	8,497	26.5	23.5	22.1
1959.....	15,351	7,059	8,292	28.5	26.3	23.2
1958.....	13,986	5,946	8,040	28.2	24.4	24.0
1957.....	12,616	5,163	7,454	28.2	23.6	24.3
1956.....	11,407	4,564	6,843	28.0	23.2	24.5
1955.....	10,706	3,992	6,713	28.5	22.2	25.9
1954.....	9,125	3,347	5,778	26.7	20.2	24.6
1953.....	7,905	2,847	5,058	25.3	18.4	23.7
1952.....	7,436	2,658	4,778	25.5	18.4	24.0
1950.....	6,047	2,237	3,810	23.7	17.3	22.6
1948.....	3,725	1,456	2,269	18.6	14.3	17.2
1946.....	1,305	368	937	10.2	6.2	10.5

<sup>1</sup> For the periods shown up to "1963," these data relate to fiscal years of State and local governments that ended during the calendar year indicated. Beginning with "1963-64," the local government amounts are for local fiscal years ended between July and June of the respective designated years.

<sup>2</sup> Computed for each level of government by reference to expenditure totals which include payments to other levels of government (State-to-local and local-to-State).

Wartime restrictions caused a drastic cut in State-local capital outlay during World War II, from a prewar annual level of about \$2.5 billion to a low of \$0.7 billion in 1944. By 1948, such expenditure had revived to a new annual high (in current dollar terms) of \$3.7 billion. The subsequent rate of growth has been less striking, but with only one exception (1959 to 1960), Census Bureau surveys have each year indicated a material rise in State-local capital outlay. The annual rate of increase averaged 8.5 percent between 1953 and 1963.

This strong upward trend in capital outlay has roughly paralleled the rate of growth in State and local government expenditure as a

whole. Accordingly, as indicated by table 2, the proportion of all State and local government spending (other than insurance trust amounts) that is represented by capital outlay has been practically the same in recent years as it was in the early 1950's. During the interim, however, somewhat higher proportions prevailed. This reflects the fact that capital outlays rose more rapidly than other State and other local government expenditures up to 1959, while the reverse has been true in recent years. Thus, the year-to-year rise in all State-local expenditure (other than insurance trust amounts) averaged 7.4 percent from 1958 to 1963, as against an average annual rise of 5.1 percent in the capital outlay of these governments.

#### TRENDS IN THE COMPOSITION OF CAPITAL OUTLAY

About four-fifths of all capital outlay of State and local governments is for new construction, and about 12 percent of the total is for the purchase of land and existing structures. The other 8 to 9 percent involves equipment purchases (counted on a gross basis, including replacement items). There has been an increase in the proportion for the purchase of land and existing structures, as indicated by the following summary distribution for selected fiscal years:

*Percent of capital outlay of State and local governments*

	1952	1957	1962	1964-65
Construction.....	85.9	82.3	81.1	79.0
Land and existing structures.....	6.3	9.5	11.1	12.1
Equipment.....	7.9	8.2	7.8	8.8

This trend can be more sharply indicated by pointing out that amounts applied by State and local governments to the purchase of land and structures went up 272 percent, or 14 percent annually, between 1953 and 1963-64, while their construction expenditure was rising 114 percent, or about 8 percent a year.

Changes have also occurred in the relative amounts of capital outlay undertaken by States and local governments, respectively. The State government portion has rather consistently risen, from less than 30 percent of the State-local total in 1946 to 36 percent in 1952, 41 percent in 1957, 43 percent in 1962, and over 44 percent in the latest years. This development is related to the strong rise in State highway outlays during the 1950's and the even more rapid increase (although involving lesser sums) in capital outlay for institutions of higher education, which mainly involves direct State government spending.

A little more than four-tenths of all capital outlay of State and local governments during recent years has been for highways—including urban streets, local roads, and toll facilities as well as regular State-provided highways. Nearly one-fourth of all State-local capital expenditure is for education. The remaining one-third of the total pertains to a great variety of governmental functions, of which only two (sewerage and water supply) respectively account for as much as 5 percent of all capital outlay of State and local governments.

A functional distribution of State-local capital outlay for selected recent years is provided by table 3, which is based on appendix table B.



TABLE 3.— *Percent distribution of capital outlay of State and local governments, by function; selected years, 1952 to 1964-65*

Function	1952	1957	1962	1964-65
Total.....	100.0	100.0	100.0	100.0
Highways.....	36.3	41.3	41.7	40.1
Regular State highways.....	21.5	25.1	31.3	31.2
State toll facilities.....	3.6	6.6	.9	1.1
Local government streets and highways.....	11.2	9.6	9.5	7.8
Education.....	23.0	25.8	23.9	24.4
Local schools.....	19.1	21.5	18.0	17.0
Institutions of higher education.....	3.6	4.1	5.7	7.0
Other.....	.3	.2	.2	.4
Sewerage.....	5.9	5.1	5.3	5.3
Water supply.....	5.5	5.9	5.4	5.5
Housing and urban renewal.....	8.5	2.2	4.7	3.8
Electric utilities.....	2.6	3.4	2.7	3.7
Natural resources.....	2.5	1.7	2.0	2.4
Health and hospitals.....	5.2	2.8	2.4	2.4
Airports.....	.7	1.3	1.5	1.3
Local parks and recreation.....	.8	1.2	1.6	1.7
Local transit utilities.....	.9	1.0	.5	1.2
Water transportation and terminals.....	1.0	.8	1.1	.8
Other and unallocable (including multipurpose general public buildings).....	7.1	7.4	7.3	7.5

Although all functions have shared in the upward trend in capital outlay, they have differed considerably in rates of change. For example, highway outlay grew considerably faster than other capital expenditure from 1952 to 1958, and has since then generally paralleled the overall trend. Capital outlay for local schools has increased less rapidly than other State-local outlays, so that the fraction of the total applied to schools dropped from about one-fifth in the early 1950's to about one-sixth in 1964-65. However, with the stronger-than-average rise in capital outlay for institutions of higher education, the fraction of all capital expenditure of State and local governments going into education as a whole has been relatively unchanged. Rates of growth in capital outlay for sewerage and water supply facilities have generally paralleled the trend in total State-local outlays.

The most striking departure from the usual pattern involves capital outlay for health and hospitals. Such spending went up only 19 percent between 1953 and 1958, while aggregate annual capital outlay of State and local governments was increasing 77 percent; and since 1958 health and hospital outlays of these governments have been relatively stable, even though their total capital spending was continuing to rise about 5 percent a year. If this functional class had kept pace with the prevailing trend, there would have been nearly \$10 billion of State-local capital outlay for health and hospitals during the period 1952 to 1965, instead of the \$5.6 billion that was actually so applied.

The functional class "housing and urban renewal" also reflects an unusual historical pattern. Capital outlay of State and local governments for this purpose dropped steadily between 1952 and 1956, and did not regain its 1952 level until after 1961. Since then it has continued upward, but only to a 1964-65 level about one-fourth above the 1952 level, while total capital outlay of State and local governments nearly tripled during this 13-year interval.

## FUNCTIONAL COMPOSITION OF CONSTRUCTION EXPENDITURE

Construction expenditure, as already noted, makes up about four-fifths of all capital outlay of State and local governments. It is not surprising, therefore, that the functional distribution of construction spending, as summarized in table 4 (based on appendix table C) generally resembles the percentage allocation of capital outlay among various functions, as shown for the same years in table 3. However, some differences between the two sets of figures may be noted. Two components—sewerage and water supply—generally account for larger percentages of construction expenditure than of capital outlay, indicating that purchases of land and of equipment make up a less-than-average proportion of all capital outlays for these particular functions.

The reverse is true for three other functions—housing and urban renewal, and natural resources (each involving a relatively large part of all capital outlay for acquisition of land) and transit utilities (with relatively large sums for the purchases of equipment, as distinct from construction).

TABLE 4.—Percent distribution of construction expenditure of State and local governments, by function: Selected years, 1952 to 1964-65

Function	1952	1957	1962	1964-65
Total .....	100.0	100.0	100.0	100.0
Highways.....	36.7	41.8	42.7	42.4
Regular State highways.....	23.0	25.5	32.2	33.2
State toll facilities.....	3.6	7.1	1.0	1.2
Local government streets and highways.....	10.1	9.2	9.5	8.0
Education.....	22.7	26.5	23.6	23.5
Local schools.....	18.9	22.8	18.1	16.5
Institutions of higher education.....	3.6	3.6	5.4	6.6
Other.....	0.3	0.2	0.2	0.5
Sewerage.....	5.9	5.8	6.3	6.5
Water supply.....	5.5	6.2	6.0	6.4
Housing and urban renewal.....	8.8	1.5	2.8	2.3
Electric utilities.....	2.6	3.9	3.0	2.9
Natural resources.....	2.3	1.5	2.0	2.3
Health and hospitals.....	6.0	3.0	2.5	2.5
Airports.....	0.6	1.4	1.7	1.4
Local parks and recreation.....	0.8	1.1	1.5	1.6
Local transit utilities.....	0.8	0.7	0.2	0.5
Water transportation and terminals.....	1.0	1.1	1.2	0.9
Other and unallocable (including multipurpose general public buildings).....	6.0	5.5	6.5	6.7

## RELATION TO OTHER DATA ON PUBLIC CONSTRUCTION

The statistics summarized in table 4, and the related figures detailed in appendix table C, pertain to amounts expended by State and local governments for construction, as assembled for annual Bureau of the Census reports which provide governmental finance data on a fiscal-year basis. Another statistical series, which has been regularly published for many years in the Construction Review (issued by the Business and Defense Services Administration of the Department of Commerce) supplies monthly and cumulative annual estimates of the dollar value of "construction put in place," including separate figures on construction of facilities owned by State and local governments.

Until very recently, the construction put-in-place series was based upon figures concerning public contract awards, and applied a classification pattern (by type of facility) which differed materially from the functional classification used in Census Bureau reporting of State and local government finances. Nevertheless, annual aggregates of State and local government construction, as indicated by these two independent series, showed a relatively high degree of historical consistency during the past decade, as illustrated in table 5.

TABLE 5.—Comparison of construction expenditure of State and local governments in the fiscal years 1954 through 1963 with State-local construction put in place during corresponding periods

[Amounts in millions of dollars]

Fiscal year <sup>1</sup>	Construction expenditure (A)	Construction put in place <sup>1</sup> (B)	Difference (with construction expenditure as the base)	
			Amount	Percent
1963.....	14,481	14,441	-40	-0.3
1962.....	13,625	13,613	-12	-.1
1961.....	13,214	12,755	-459	-3.5
1960.....	12,352	12,294	-58	-.5
1959.....	12,723	12,208	-515	-4.0
1958.....	11,704	11,578	-126	-1.1
1957.....	10,386	10,546	160	1.2
1956.....	9,355	9,584	229	2.4
1955.....	9,048	8,819	-229	-2.5
1954.....	7,738	7,860	122	1.6
10 years, 1954-63.....	114,626	113,698	-928	-.8

<sup>1</sup> Since the diverse fiscal years which are covered comprise approximately, on a weighted average basis, the 12 months ending with June of the respective specified years, the amounts shown for "construction put in place" are also for such 12-month intervals.

Early in 1963, the Bureau of the Census initiated a quarterly sample survey of State and local government expenditure for new construction, which provides national estimates by level of government and by function. Findings from this survey are now being used as the primary basis for the published current data on State-local construction put in place. The subclassification of the latter series has also been modified, beginning with the year 1963, and now incorporates (with some limited differences of terminology) the functional categories which are reflected in regular Census Bureau statistics on finances of State and local governments. A detailed explanation of the present relationship between these two sets of data appear in a Census Bureau publication (construction reports, series C30-655) Value of New Construction Put in Place, 1962-65, issued in January 1966.

#### BORROWING IN RELATION TO CAPITAL OUTLAY

Total indebtedness of State and local governments at the beginning of July 1965 was approximately \$99 billion, or about 6 times as much as 20 years before. Most of this development has resulted from the issuance of debt to finance capital outlays.

Annual Census Bureau reports show \$110.1 billion of long-term borrowing by State and local governments during the 14 fiscal years from 1952 through 1964-65. Of this sum, \$2.2 billion involved long-term debt for purposes other than capital outlay—mainly for veterans bonuses, but including also debt issued to finance a sizable vet-

erans home loan program of the State of California. Not all of the other \$107.9 billion was fully applied to capital outlay during this period; a portion of it was reflected in the growth of bond fund holdings—i.e., proceeds from borrowing not yet disbursed. Census Bureau reports indicate a \$4.4 billion increase in such holdings (from \$5.4 billion to \$9.8 billion) between 1957 and 1965, and bond funds had also probably grown by at least \$2 billion during the preceding 5 years, when no such specific measure was being developed for census reports. Deducting these amounts from the \$107.9 billion of long-term debt issued for capital outlay would indicate approximately \$101.4 billion as being actually so applied from 1952 through 1964-65. This is a little more than half of the \$194 billion total of State-local capital outlays during the 14-year period. When corresponding calculations are carried out on an annual basis for the eight most recent fiscal years (those for which the necessary detailed figures are available), the results summarized in table 6 are obtained.

TABLE 6.—*Long-term debt issued for capital outlay in relation to capital outlay expenditure of State and local governments, fiscal years 1958 to 1964-65*

Fiscal year	Issues of long-term debt applicable to capital outlay <sup>1</sup> (million dollars)			Applicable long-term debt issued as percent of capital outlay		
	Total <sup>1</sup>	State governments <sup>1</sup>	Local governments	Total	State governments	Local governments
1964-65 .....	9,258	2,658	6,600	44.6	29.0	56.9
1963-64 .....	10,982	2,796	8,186	57.5	31.7	79.7
1963 .....	9,391	2,152	7,239	52.3	26.5	73.6
1962 .....	8,351	2,225	6,127	49.7	30.8	64.0
1961 .....	7,479	1,773	5,706	46.5	25.8	61.8
1960 .....	7,286	1,918	5,368	48.2	29.0	63.2
1959 .....	7,542	2,119	5,423	49.1	30.0	65.4
1958 .....	7,825	2,136	5,690	55.9	35.9	70.8
8 years, 1958 to 1964-65..	68,114	17,777	50,339	50.4	29.7	66.8

<sup>1</sup> Excluding State bonds issued for purposes other than capital outlay, and minus increases in bond-fund holdings.

In considering table 6, it should be noted that State debt issuance is being compared with direct State government expenditure for capital outlay, without any specific allowance for some State payments to local governments for capital purposes. Most State intergovernmental expenditure is not of that nature, and no basis is available for estimating closely the debt-financed amounts that may be involved. However, from statistics developed in the 1962 Census of Governments, it can be determined that State payments to local governments for educational purposes included about \$271 million specifically for construction or capital outlay. Presumably, also, the bulk of State intergovernmental expenditure for local highways (\$1,327 million in 1962; \$1,630 million in 1965) is used or available for capital outlays; in addition, relatively minor sums are distributed by various States to help finance local capital outlay for various other functions. Not all such distributive amounts, however, are financed by State borrowing. Even if it were possible to develop data in which all State-financed capital outlay by local governments were counted as State rather than local expenditure, the States would still show a considerably lower percentage relationship of debt issued to capital outlay than would the local governments. This is mainly because highway

amounts, with considerable financing from Federal grants, make up such a large part of all State capital outlay.

#### FEDERAL AID FOR STATE-LOCAL CAPITAL OUTLAYS

About one-seventh of all general revenue of State and local governments during recent years has been received through Federal grants or other distributive payments. However, of the numerous programs of Federal intergovernmental expenditure, there are only a few which are designed primarily to help finance construction or capital outlays. By far the largest of these is the Federal highway program, which accounts for about one-third of all Federal payments to State and local governments. Another sizable component involves distributions for urban renewal and public housing. (The housing payments do not specifically finance construction but subsidize low-rent housing operations undertaken by local governments, and thus indirectly foster capital outlay for such public housing.) During recent years, Federal grants specifically for construction or capital outlay purposes have amounted to a significant fraction of all capital outlay of State and local governments for four functions—highways, housing and urban renewal, hospitals, and airports. For other functions, however, grants of this sort have represented only a relatively minor percentage of State-local capital spending. These relationships are shown in table 7.

TABLE 7.—Federal intergovernmental expenditure specifically for capital outlay purposes, in relation to capital outlay of State and local governments, by function, 1952 to 1964-65

Period (fiscal years)	Amounts (millions of dollars)							
	Total	Highways	Housing and urban renewal	Health and hospitals	Sewerage	Airports	Education	All other
1964-65	5,035	3,983	675	161	75	71	29	41
1963-64	4,453	3,615	543	115	66	65	39	10
1963	3,533	2,951	359	64	51	52	53	3
1962	3,257	2,748	309	60	42	57	41	-----
1961	3,093	2,586	275	66	44	63	59	-----
1960	3,353	2,906	223	58	40	56	70	-----
1959	2,969	2,580	182	51	36	56	64	-----
1958	1,777	1,477	125	45	17	42	71	-----
1957	1,172	944	112	30	1	19	66	-----
1956	943	733	84	24	-----	16	86	-----
1955	839	589	93	30	-----	8	119	-----
1954	746	517	58	49	-----	17	105	-----
1953	739	517	31	59	-----	27	105	-----
1952	578	420	9	61	-----	33	55	-----
1952 to 1964-65 (14 years)	32,487	20,566	3,078	873	372	582	962	54
1952 to 1963-64 (13 years)	27,452	21,583	2,403	712	297	511	933	13
1958 to 1963-64 (7 years)	22,435	18,863	2,016	459	296	391	397	13
1952 to 1957 (6 years)	5,017	3,720	387	253	1	120	536	-----

Period (fiscal years)	Percent relation to State and local capital outlay for corresponding functions							
	Total	Highways	Housing and urban renewal	Health and hospitals	Sewerage	Airports	Education	All other
1964-65	24.2	47.8	85.0	32.6	6.8	27.2	0.6	0.9
1963-64	23.3	45.4	74.5	27.5	6.0	29.8	.9	.2
1963	19.7	39.1	43.2	15.3	4.8	23.1	1.3	.1
1962	19.4	39.4	39.6	14.7	4.7	22.5	1.0	-----
1961	19.2	39.9	45.5	17.4	6.1	20.1	1.5	-----
1960	22.2	45.8	40.0	14.3	5.2	23.0	1.9	-----
1959	19.3	38.8	48.1	11.2	5.1	24.3	1.7	-----
1958	12.7	25.6	34.2	9.9	2.6	15.3	2.0	-----
1957	9.3	18.1	39.6	8.5	0.2	11.3	2.0	-----
1956	8.3	15.7	35.4	7.9	-----	13.4	2.7	-----
1955	7.8	13.9	30.5	9.0	-----	11.8	3.9	-----
1954	8.2	15.0	13.2	12.5	-----	24.6	4.1	-----
1953	9.3	17.3	6.4	15.4	-----	46.6	5.1	-----
1952	7.8	15.6	1.4	15.8	-----	67.3	3.2	-----
1952 to 1964-65 (14 years)	16.7	33.5	41.5	15.6	3.7	27.8	2.0	.1
1952 to 1963-64 (13 years)	15.8	31.8	36.3	14.0	3.3	22.3	2.2	(1)
1958 to 1963-64 (7 years)	19.6	39.5	47.5	15.6	5.0	22.2	1.4	(1)
1952 to 1957 (6 years)	8.5	16.0	16.3	11.7	-----	22.6	3.4	-----

1 Less than 0.05 percent.

TABLE 8.—Estimated distribution of major sources of financing of State and local government capital outlay, selected periods, 1952 to 1965

Period (fiscal years)	Amounts (millions of dollars)							
	Total capital outlay	Long-term debt issues applicable to capital outlay <sup>1</sup>			Federal intergovernmental expenditure specifically for capital outlay purposes			Other financing sources <sup>2</sup>
		Total	State debt	Local debt	Total	For highways	Other	
1964-65.....	20,771	9,258	2,658	6,600	5,035	3,983	1,052	6,478
1963-64.....	19,087	10,982	2,796	8,186	4,453	3,615	838	3,652
1963.....	17,946	9,391	2,152	7,239	3,533	2,951	582	5,022
1962.....	16,791	8,351	2,225	6,127	3,257	2,748	509	5,183
1961.....	16,081	7,479	1,773	5,706	3,093	2,586	507	5,519
1960.....	15,104	7,286	1,918	5,368	3,353	2,906	447	4,465
1959.....	15,351	7,542	2,119	5,423	2,969	2,580	359	4,840
1958.....	13,986	7,825	2,136	5,690	1,777	1,477	300	4,384
1952 to 1964-65 (14 years).....	194,303	102,541	(3)	(3)	32,487	26,566	5,921	59,275
1952 to 1963-64 (13 years).....	173,551	92,141	(3)	(3)	27,452	22,583	4,869	53,958
1958 to 1963-64 (7 years).....	114,356	58,865	15,119	43,739	22,435	18,863	3,572	33,065
1952 to 1957 (6 years).....	59,195	33,285	(3)	(3)	5,017	3,720	1,297	20,893
1958 to 1964-65 (8 years).....	135,127	68,114	17,777	50,339	27,470	22,846	4,624	39,540

Period (fiscal years)	Percent distribution							
	Total capital outlay	Long-term debt issues applicable to capital outlay <sup>1</sup>			Federal intergovernmental expenditure specifically for capital outlay purposes			Other financing sources <sup>2</sup>
		Total	State debt	Local debt	Total	For highways	Other	
1964-65.....	100.0	44.6	12.8	31.8	24.2	19.2	5.1	31.2
1963-64.....	100.0	57.5	14.6	42.9	23.3	18.9	4.4	19.1
1963.....	100.0	52.3	12.0	40.3	19.7	16.4	3.2	28.0
1962.....	100.0	49.7	13.3	36.5	19.4	16.4	3.0	30.9
1961.....	100.0	46.5	11.0	35.5	19.2	16.1	3.2	34.3
1960.....	100.0	48.2	12.7	35.5	22.2	19.2	3.0	29.6
1959.....	100.0	49.1	13.8	35.3	19.3	16.8	2.5	31.5
1958.....	100.0	55.9	15.3	40.7	12.7	10.6	2.1	31.3
1952 to 1964-65 (14 years).....	100.0	52.8	(3)	(3)	16.7	13.7	3.0	30.5
1952 to 1963-64 (13 years).....	100.0	53.1	(3)	(3)	15.8	13.0	2.8	31.1
1958 to 1963-64 (7 years).....	100.0	51.5	13.2	38.2	19.6	16.5	3.1	28.9
1952 to 1957 (6 years).....	100.0	56.2	(3)	(3)	8.5	6.3	2.2	35.3
1948 to 1964-65 (8 years).....	100.0	50.4	13.2	37.3	20.3	16.9	3.4	29.3

<sup>1</sup> Excluding long-term debt issued for other than capital outlay, and net of increases in bond fund holdings; see text.

<sup>2</sup> Calculated as a residual for the various periods reported.

<sup>3</sup> Not available.

### OTHER SOURCES OF FINANCING

As indicated by the foregoing discussion, long-term borrowing has in recent years financed slightly more than one-half of all capital outlay of State and local governments, and Federal grants for capital purposes have equalled about one-fifth of the outlay total (or somewhat more than this after 1963). Accordingly, other means of financing have typically accounted for somewhat over one-fourth of all State-local capital spending. A summary of these several financing components appears in table 8, which provides data for various groups of years since 1952 and on an annual basis from 1958 to 1965.

There is no basis for estimating in detail the origin of the "other financing sources" shown in table 8. It is reasonable to presume that a considerable portion came from tax collections, in view of the important place of taxes in the revenue structure of State and local governments. However, nontax revenue sources are relatively more significant than seems often to be recognized, and these have also, directly or indirectly, financed an indeterminate portion of State-local capital spending.

Some background on this score is provided by table 9, which summarizes State and local government revenue in 1963-64 by source.

TABLE 9.—Revenue of State and local governments, by source, 1963-64

	Amount (in millions of dollars)	Percent distribution
Total.....	81,455	-----
Insurance trust revenue.....	7,038	-----
Federal grants for capital outlay <sup>1</sup> .....	4,453	-----
All other.....	69,964	100.0
Federal intergovernmental revenue (other than grants for capital outlay, shown above).....	5,549	7.9
Taxes.....	47,785	68.3
State-imposed.....	24,243	34.7
Locally imposed.....	23,542	33.6
Current charges.....	7,491	10.7
Miscellaneous general revenue.....	3,164	4.5
Utility revenue.....	4,616	6.6
Liquor stores revenue.....	1,359	1.9

<sup>1</sup> As so classified in table 7.

The several revenue components appearing in table 9 which pertain to receipts from current charges or the sale of services and commodities can be associated with particular governmental functions. For these, accordingly, table 10 provides a comparison of revenue and expenditure amounts, by function.

The figures in table 10 illustrate the very wide range in the extent to which particular services of State and local governments involve an element of "self-support." Receipts from charges or sales represent only a relatively minor financing source for most functions. However, for local utilities, publicly operated liquor stores, and certain other functions, such revenue actually tends to equal or exceed current expenditure and thus to provide surplus resources, available to meet capital requirements of the particular function involved or to help finance other spending. These variations illustrate why it is not feasible to estimate closely, in detail, the origins of the "Other financing sources" for capital outlay of State and local governments, as shown on a summary basis in table 8.



TABLE 10.—Revenue of State and local governments from current charges and utility and liquor store sales in relation to expenditure amounts, by function: 1963-64

[Amounts in millions]

Function	Revenue from current charges or sales	Expenditure		Percent relation of charges or sales revenue to—	
		Total	Current only	Total expenditure	Current expenditure
Total.....	13,466	75,486	56,399	17.8	23.9
General government functions.....	7,491	69,302	51,847	10.8	14.4
Education.....	2,811	26,533	21,959	10.6	12.8
Highways.....	1,499	11,664	3,705	4.3	13.5
Hospitals.....	1,206	4,171	3,768	28.9	32.0
Sewerage.....	468	1,515	420	30.9	111.4
Sanitation other than sewerage.....	174	752	699	23.1	24.9
Local parks and recreation.....	143	1,022	690	14.0	20.7
Natural resources.....	212	1,835	1,143	11.6	18.5
Housing and urban renewal.....	414	1,142	413	36.3	100.2
Airports.....	234	359	141	65.2	166.0
Water transport and terminals.....	171	291	118	58.8	144.9
Parking facilities.....	152	114	49	133.3	310.2
All other or unallocable <sup>1</sup> .....	1,007	19,904	18,742	5.1	5.4
Local utilities <sup>2</sup> .....	4,616	5,067	3,436	91.1	134.3
Water supply.....	1,917	2,255	1,307	85.0	146.7
Electric power.....	1,718	1,614	1,123	106.4	153.0
Transit.....	715	948	793	75.4	90.2
Gas supply.....	266	251	213	106.0	124.9
Liquor stores.....	1,359	1,117	1,116	121.7	121.8

<sup>1</sup> State governments only; mainly from toll highway charges.

<sup>2</sup> Includes public welfare, police, fire protection, correction, and various other functions for which "charges revenue" data are not separately available.

<sup>3</sup> Expenditure amounts shown include interest on debt for utility purposes.

#### SOURCES AND LIMITATIONS OF DATA

The statistics shown in this study with respect to capital outlay and other expenditure, revenue, and indebtedness of State and local governments are nearly entirely from publications of the Bureau of the Census: primarily the annual reports *Government Finances* in [year], and *Compendium of State Government Finances* in [year], and a report of the 1962 Census of Governments (vol. VI, No. 4) entitled "*Historical Statistics on Governmental Finances and Employment.*"

All the fiscal-year amounts which are shown or included for local governments are estimates subject to sampling variation, except amounts for 1957 and 1962, which are based upon the comprehensive Censuses of Governments conducted for those years.

The data shown in table 5 concerning State-local construction put in place are from the *Construction Review*, and are based upon Census Bureau data derived from figures on public construction awards.

The fiscal-year amounts shown for 1963 and earlier periods pertain to governmental fiscal years which ended during the respective calendar years specified. A shift was initiated in Census Bureau financial reports after 1963, whereby local governments are grouped in terms of fiscal years ended in June or the 11 previous months. As thus grouped, the local amounts included here for 1963-64 and 1964-65 are for a period averaging about 3 months earlier than on the previous reporting basis.

The coverage layout of various tables has necessarily been influenced by differences in the extent of data available for various prior periods. Some presentations are limited to the period from 1958 on, and some to the years beginning with 1952, with only a few series shown for the alternate (even-numbered) years from 1946 to 1950. Similarly, limitations in the amount of information available in earlier intervals have been taken into account in the summarization of data for various groups of years in certain tables.

APPENDIX TABLE A.—Selected items of State and local government finances, 1946 to 1964-65

[In millions of dollars]

Fiscal year	Total expenditure			Insurance trust expenditure			Expenditure, other than insurance trust			Capital outlay		
	State and local governments <sup>1</sup>	States	Local governments	State and local governments	States	Local governments	State and local governments <sup>1</sup>	States	Local governments	State and local governments	States	Local governments
1964-65.....	86,962	45,507	55,890	4,950	4,170	780	82,012	41,337	55,110	20,771	9,175	11,596
1963-64.....	80,579	42,583	51,199	5,094	4,364	730	75,485	38,219	50,469	19,087	8,820	10,267
1963.....	75,700	39,583	48,309	5,012	4,306	706	70,748	35,277	47,603	17,946	8,110	9,836
1962.....	70,547	36,402	45,279	4,888	4,238	651	65,659	32,164	44,628	16,791	7,214	9,577
1961.....	67,023	34,693	42,641	5,299	4,701	599	61,724	29,992	42,042	16,091	6,865	9,226
1960.....	60,999	31,596	39,056	4,031	3,461	570	56,968	28,135	38,486	15,104	6,007	8,497
1959.....	58,572	31,125	36,341	4,784	4,259	525	53,788	26,866	35,810	15,351	7,059	8,292
1958.....	53,712	28,080	34,023	4,168	3,675	492	49,544	24,405	33,531	13,986	5,946	8,040
1957.....	47,553	24,235	31,057	2,749	2,313	436	44,804	21,922	30,621	12,616	5,163	7,454
1956.....	43,152	21,686	28,273	2,376	1,984	392	40,776	19,702	27,881	11,407	4,564	6,843
1955.....	40,375	20,357	26,230	2,764	2,411	353	37,611	17,946	25,877	10,706	3,992	6,713
1954.....	36,607	18,686	23,814	2,423	2,096	327	34,184	16,690	23,487	9,125	3,347	5,778
1953.....	32,937	16,850	21,662	1,711	1,416	296	31,226	15,434	21,366	7,905	2,847	5,058
1952.....	30,863	15,834	20,229	1,698	1,413	285	29,165	14,421	19,944	7,436	2,658	4,778
1950.....	27,905	15,082	17,041	2,379	2,177	202	25,526	12,905	16,839	6,047	2,237	3,810
1948.....	21,260	11,181	13,363	1,197	1,020	177	20,063	10,161	13,186	3,725	1,456	2,269
1946.....	14,067	7,066	9,093	1,306	1,158	148	12,761	5,908	8,945	1,305	368	937

<sup>1</sup> Less than the sum of amounts shown separately for States and local governments, because of the exclusion of duplicative (State-local and local-State) transactions.

APPENDIX TABLE B.—Capital outlay of State and local governments, by level of government, by object, and by function, 1946 to 1964-65

[Millions of dollars]

Item	1964-65	1963-64	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1950	1948	1946
Total.....	20,771	19,087	17,946	16,791	16,091	15,104	15,351	13,986	12,616	11,407	10,706	9,125	7,905	7,436	6,047	3,725	1,305
By level of government:																	
States.....	9,175	8,820	8,110	7,214	6,865	6,607	7,059	5,946	5,163	4,564	3,992	3,347	2,847	2,658	2,237	1,456	368
Local governments.....	11,596	10,267	9,836	9,577	9,226	8,497	8,292	8,040	7,454	6,843	6,713	5,778	5,058	4,778	3,810	2,269	937
By object:																	
Construction.....	16,417	15,389	14,481	13,625	13,214	12,352	12,723	11,704	10,386	9,355	9,048	7,738	6,763	6,386	5,169	3,085	970
Land and existing structures.....	2,516	2,200	1,974	1,859	1,635	1,560	1,552	1,257	1,198	1,200	925	687	530	467	879	640	334
Equipment.....	1,838	1,498	1,491	1,307	1,242	1,192	1,075	1,025	1,032	852	733	700	612	584			
By function:																	
Education.....	5,060	4,574	4,064	4,009	3,853	3,685	3,790	3,543	3,252	3,195	3,074	2,537	2,051	1,710	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Instructions of higher education.....	1,445	1,465	1,155	949	790	759	784	653	514	387	312	262	249	266	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local schools.....	3,523	3,042	2,867	3,026	3,031	2,903	2,981	2,868	2,715	2,786	2,739	2,256	1,784	1,421	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other.....	93	67	44	35	32	24	24	21	22	22	23	19	18	23	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Highways.....	8,324	7,959	7,545	6,978	6,476	6,340	6,641	5,761	5,211	4,654	4,237	3,452	2,984	2,700	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
State toll facilities.....	223	285	320	154	101	165	368	717	837	1,003	826	445	167	266	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other.....	8,101	7,674	7,225	6,824	6,375	6,175	6,273	5,044	4,374	3,651	3,411	3,007	2,817	2,434	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Health and hospitals.....	494	418	418	407	380	405	457	456	355	303	335	392	382	387	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Natural resources.....	498	692	488	344	352	246	231	204	211	212	152	141	137	184	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Housing and urban renewal.....	794	729	831	781	606	557	378	366	283	237	305	438	481	629	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Airports.....	261	218	225	253	314	243	230	275	168	119	68	69	58	49	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Water transport and terminals.....	159	173	200	185	193	136	153	138	107	106	71	121	94	71	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Sewerage.....	1,107	1,095	1,057	886	726	767	708	649	644	589	491	439	399	442	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local parks and recreation.....	360	332	317	269	254	235	229	205	156	144	142	112	79	63	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local utilities.....	2,190	1,631	1,590	1,481	1,659	1,407	1,481	1,436	1,330	1,191	1,162	821	787	677	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Water supply.....	1,138	948	936	913	990	843	878	761	748	712	752	486	453	406	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Electric power.....	766	491	461	446	498	443	474	525	428	337	281	249	270	195	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Transit.....	242	155	168	90	120	94	102	134	120	109	81	62	52	67	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Gas supply.....	44	38	26	32	51	27	27	16	34	33	48	23	12	9	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other and unallocable.....	1,524	1,265	1,210	1,198	1,279	1,083	1,053	954	900	657	668	603	453	524	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Detail not available.

APPENDIX TABLE C.—Construction expenditure of State and local governments, by level of government and by function, 1946 to 1964-65

[Millions of dollars]

Item	1964-65	1963-64	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952	1950	1948	1946
Total.....	16,417	15,389	14,481	13,625	13,214	12,352	12,723	11,704	10,386	9,355	9,048	7,738	6,763	6,386	5,169	3,085	970
By level of government:																	
States.....	7,500	7,263	6,717	5,960	5,699	5,509	5,937	5,022	4,318	3,872	3,404	2,831	2,472	2,323	1,966	1,268	292
Local governments.....	8,909	8,127	7,764	7,665	7,615	6,843	6,786	6,682	6,069	5,482	5,644	4,907	4,291	4,063	3,203	1,817	678
By function:																	
Education.....	3,868	3,687	3,257	3,220	3,155	3,038	3,205	3,035	2,757	2,511	2,706	2,172	1,756	1,452	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Institutions of higher education.....	1,079	1,142	886	733	613	593	639	468	374	302	235	194	203	228	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local schools.....	2,703	2,496	2,340	2,462	2,516	2,427	2,553	2,547	2,366	2,195	2,455	1,963	1,537	1,206	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other.....	76	50	32	25	26	19	13	19	17	14	16	15	16	19	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Highways.....	6,969	6,694	6,302	5,814	5,419	5,344	5,581	4,871	4,345	3,957	3,648	2,982	2,607	2,346	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
State toll facilities.....	203	257	283	135	85	141	333	649	738	884	715	384	146	231	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other.....	6,766	6,437	6,019	5,679	5,334	5,203	5,248	4,222	3,607	3,073	2,933	2,598	2,461	2,115	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Health and hospitals.....	415	361	354	346	320	343	391	386	311	262	298	354	352	381	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Natural resources.....	374	485	389	276	277	176	175	158	153	168	111	109	108	149	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Housing and urban renewal.....	374	370	438	376	307	266	247	233	154	156	179	325	387	565	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Airports.....	231	182	185	229	293	219	206	195	144	97	60	57	37	39	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Water transport and terminals.....	145	161	182	157	177	117	131	103	115	92	63	115	86	67	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Sewerage.....	1,072	986	1,024	856	708	749	690	629	605	572	476	412	335	378	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local parks and recreation.....	266	265	234	208	189	183	176	152	110	111	108	91	67	52	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Local utilities.....	1,655	1,437	1,317	1,289	1,460	1,198	1,292	1,234	1,150	991	949	734	691	581	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Water supply.....	1,051	890	840	824	900	713	755	655	645	622	617	446	404	351	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Electric power.....	477	454	404	404	459	393	441	483	405	275	231	211	240	169	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Transit.....	88	56	50	32	52	67	75	83	68	62	55	55	38	53	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Gas supply.....	40	37	24	29	49	26	23	14	32	31	46	22	9	7	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Other and unallocable.....	1,056	763	799	854	909	721	629	708	642	437	451	387	338	376	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Detail not available.

## CHAPTER 2

### Financing by Private Nonprofit Organizations\*

#### A. NATURE OF MARKET

Private, nonprofit organizations during the past several decades have benefited substantially through the expanded interest among lenders in providing practical, economic loans for needed expansion of facilities. Today the market for such loans includes underwriting for public distribution and direct loans by insurance companies, banks, pension funds, labor unions, and so forth. Sound underwriting practices by underwriters specializing in the field has contributed to outstanding performance on issues sold publicly for an extended period of years. This exemplary performance record obviously influenced large unit buyers to accelerate an increase in their holdings in this classification by larger participations in publicly distributed issues and by becoming direct lenders. Thus for a period of years there has been very active competition among underwriters and lenders to acquire the obligations of nonprofit organizations whenever the quality of the credit could be established.

The quality of each specific loan has had a direct bearing on the breadth of its marketability. Obligors with a good past record of earnings and a showing of ability to comfortably service the proposed indebtedness have usually been pursued by several lenders. At the other extreme there have been some loan proposals where the absence of performance or the uncertainty of future potential resulted in a general lack of lenders' enthusiasm for the project. Since the great majority of private nonprofit organizations are well managed, the overall general experience nevertheless has been favorable for borrowers.

#### 1. SIGNIFICANT INVESTOR GROUPS

From the beginning of institutional financing right up to the present time, the participation of the private, individual investor has been of great importance. Sales of \$500 bonds and an annual average unit sale of less than \$2,500 was the general experience of pioneer dealers in church bonds. Today, individuals buy in much larger units; \$25,000, \$50,000, or \$100,000 purchases by one person are fairly frequent. Currently, with the addition of large block sales to insurance companies and other institutional accounts, the average unit sale has increased substantially. Thus the total dollar volume of securities purchased by individuals has increased constantly and very substantially. For most of the past 20 years individual investors have accounted for more than 50 percent of the total volume of nonprofit-organization securities sold.

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\*Prepared by Arnold H. Moeller, secretary-treasurer, B. C. Ziegler & Co., West Bend, Wis., with minor editing by committee staff.

Banks have a long record of participation in publicly distributed issues of securities in the "church, hospital, private school, and homes for the elderly" classification. Since most issues are set up with required serial retirements, banks investing their own discretionary funds find the vehicle well adapted to their requirements and at rates that are usually somewhat higher than they would be able to procure elsewhere for the same term and with comparable marketability. Owing to certain classifications by some bank examiners in some areas, less-aggressive bank officers have become reluctant buyers, or even non-participants. However, this has not been a major deterrent in distribution.

The volume of securities in this classification sold to insurance companies shows substantial growth during the past two decades. Also, some direct lending has been done by insurance companies particularly in the last decade. The success of publicly distributed issues attributable to some degree to sound underwriting practices has contributed to the broadening market in the insurance company investment portfolio. Since the investment of insurance company funds is to a large degree controlled by State or Federal regulation, underwriters have also found it expedient to set up many of their larger offerings so that they adequately meet the prescribed insurance portfolio investment requirements. Participation by pension funds, labor unions, and other similar investor accounts has to a large degree followed the pattern of insurance company participation, except that the aggregate total dollar volume has not yet been developed to any large extent.

## 2. UNDERWRITERS AND DISTRIBUTORS

Church and hospital financing through underwriting securities issues is centered in the Midwest. Other houses in various sections of the country participate in the distribution of church, hospital, and private school bonds. Dealer participation can be summarized in these three classifications:

1. Underwriters specializing in underwriting and distributing publicly offered issues of bonds and notes for private, nonprofit organizations,
2. Underwriters who occasionally enter the field either as part of a syndicate or as sole underwriter, and
3. Securities dealers who participate in distribution, without making any substantial advance commitment.

In the Middle West there are about 10 underwriting firms which definitely specialize in originating, underwriting, and selling securities for religious, educational, and other not-for-profit organizations. Their service is extended to borrowing institutions from coast to coast. The volume of dollars provided annually by these underwriters for local public facilities probably exceeds the total dollars loaned to such institutions through any other specific source. These underwriters by careful selection of loans, by employment of sound underwriting practices, and by persistent publicity, popularized these securities as investments for the wide variety of accounts now holding this type of bond or note.

Distribution of larger issues sometimes is accomplished by the joint efforts of several securities houses. Included in the selling group there occasionally are houses whose principal distribution lies in other fields

such as municipals, stock or mutual funds. There are within the 50 States of the United States no less than 500 offices of licensed securities dealers who serve an investor clientele by providing obligations of non-profit organizations for the investment of available funds. A dealer's investor clientele will include individuals, banks, insurance companies, and all other investor classifications included in the specializing underwriter's various participants.

## B. VOLUME AND CHARACTERISTICS

### 1. VOLUME OF ANNUAL SALES

The volume of obligations issued by private, nonprofit organizations during the years 1946-65 can only be approximated. There is no known authoritative source of comprehensive information on the subject. The figures presented here are estimates made by the author of this chapter from separate and incomplete information studied carefully in compiling these facts:

*Estimated volume of obligations issued by private nonprofit organizations during the years 1946-65*

Year	Number	Amount	Year	Number	Amount
1946	30	\$15,200,000	1956	100	\$47,000,000
1947	30	19,250,000	1957	105	69,000,000
1948	40	18,200,000	1958	120	90,000,000
1949	48	20,500,000	1959	110	105,000,000
1950	60	25,000,000	1960	120	138,000,000
1951	60	28,000,000	1961	150	134,000,000
1952	60	28,000,000	1962	160	181,000,000
1953	62	36,000,000	1963	160	200,000,000
1954	76	34,000,000	1964	180	235,000,000
1955	95	52,000,000	1965	206	237,000,000

### 2. FINANCIAL CHARACTERISTICS OF LOANS

Borrowing by private nonprofit corporations has been frequently, but not exclusively, secured by a first mortgage lien on the primary properties of the borrower. In recent years financing through issuance of unsecured notes has been employed in situations where borrowers have exhibited a strong financial situation. Catholic dioceses, large religious orders, and national organizations of Protestant denominations have been served frequently by negotiation and sale of unsecured loans. The trend has been in the direction of wider use of the unsecured note type of lending. This trend is illustrated in the following tabulation compiled from the records of one large underwriting firm:



*Issues underwritten and distributed*

Year	1st mortgage loans		Unsecured notes		Year	1st mortgage loans		Unsecured notes	
	Percent of dollars loaned	Number of issues	Percent of dollars loaned	Number of issues		Percent of dollars loaned	Number of issues	Percent of dollars loaned	Number of issues
1946.....	79	13	21	1	1957.....	63	40	37	13
1947.....	92	11	8	3	1958.....	83	48	17	14
1948.....	97	21	3	1	1959.....	58	37	42	17
1949.....	72	21	28	3	1960.....	39	37	61	24
1950.....	79	28	21	2	1961.....	71	64	29	26
1951.....	93	28	7	2	1962.....	50	44	50	34
1952.....	74	27	26	3	1963.....	43	48	57	24
1953.....	79	27	21	4	1964.....	55	56	45	35
1954.....	68	29	32	9	1965.....	67	59	33	37
1955.....	67	33	33	16	Total.....	60	720	40	280
1956.....	79	39	21	12					

Concurrently there has been a tendency to lengthen out the term of loans made to this broad classification of borrowers. Several decades ago loans were made principally for a maximum period of 10 years. By 1946 the most commonly used amortization period was 15 years. Recently conventional loans have been frequently set up for serial retirement over a 20-year period. Within the past 3 years a small number have been arranged with terms up to 40 years. The increasing participation of insurance companies and pension fund portfolios in publicly offered issues of this classification and the preference of these investors to put their funds out for long periods of time are factors which have made it practical to offer longer term loans to nonprofit organizations. The following schedule indicates the very modest changes in this direction through 1962, and the perceptible change within the past 3 years:

*Sample of issues underwritten*

Year	Term				Year	Term			
	1 to 10 years	11 to 20 years	21 to 30 years	Over 30 years		1 to 10 years	11 to 20 years	21 to 30 years	Over 30 years
1946.....	54.5	45.5	-----	-----	1956.....	57.0	43.0	-----	-----
1947.....	56.0	44.0	-----	-----	1957.....	51.0	49.0	-----	-----
1948.....	44.0	56.0	-----	-----	1958.....	50.0	50.0	-----	-----
1949.....	67.0	33.0	-----	-----	1959.....	50.0	50.0	-----	-----
1950.....	55.0	45.0	-----	-----	1960.....	52.0	48.0	-----	-----
1951.....	64.0	36.0	-----	-----	1961.....	47.0	53.0	-----	-----
1952.....	70.0	30.0	-----	-----	1962.....	50.0	50.0	-----	-----
1953.....	65.0	35.0	-----	-----	1963.....	42.0	54.5	1.5	2
1954.....	56.0	44.0	-----	-----	1964.....	37.0	55.0	3.0	5
1955.....	56.0	44.0	-----	-----	1965.....	36.0	59.0	2.0	3

## 3. PRINCIPAL BORROWERS AND PURPOSES OF ISSUES

Churches and synagogues issued the greatest number of loans in the private nonprofit corporation classification during the past 20 years. However, hospitals and educational institutions borrowed a larger amount of money than churches and synagogues during this period.

By classifying 1,000 units of financing underwritten during the years 1946-65, the following comparative figures were developed:

	Number of issues	Proportion of total dollars borrowed
Hospitals.....	286	42.2
Churches and synagogues.....	452	20.5
Educational institutions.....	204	30.5
Nursing and retirement homes.....	49	5.7
Other.....	9	1.1
Total.....	1,000	100.0

The concept that church and state should exist as independent institutions has historically been an important factor in the growth and development of many private nonprofit organizations. Church members have supported their denominations with a fervor and zeal that made church building projects feasible. A high percentage of the Nation's voluntary nonprofit hospitals are church affiliated. Many other institutions such as homes for the elderly, nursing homes, orphanages and homes for the handicapped and underprivileged trace their origin to the work of some religious denomination. Statistics published by the American Hospital Association show a substantially higher number of patient admissions into voluntary nonprofit hospitals than to any other class of hospital facility. Care of the sick and needy is accepted by many religious denominations as both an opportunity and a duty.

Religious considerations are involved also in financing church-related institutions. Some large denominations avoid financial and other types of assistance which may be available through local, State, or Federal agencies. A strong competitive situation among lenders specializing in lending to this classification has been of continuing benefit to these organizations.

While lender and investor motivations for serving private nonprofit organizations have been and should be largely economic, there is a consistent and growing participation which transcends economics. Private people investing their own funds include altruism with economics in making a selection. Many want their invested funds to not only earn a reasonable rate of interest and to be repaid at maturity, but they want their investment to assist in some project which they regard as beneficial to some segment of society. Earlier in this article reference was made to the experience of pioneer underwriters and the growth of personal investments over the ensuing years. Undoubtedly private investors will provide the most consistent source of additional funds in the years ahead.

### C. FUTURE PROSPECTS

The outlook for the future in private financing for private nonprofit, religious, educational, and charitable organizations is very favorable. The three essentials for this traffic are (1) availability of loans, (2) availability of investable funds, and (3) the facilities for serving both the borrower and the investor.

## 1. AVAILABILITY OF LOANS

There is every indication that borrowing of substantial amounts of money will be done by churches. Population is increasing, church membership in many areas and in many denominations is increasing more rapidly than total population. Thus places of worship will be enlarged, replaced, and supplemented by organization of entirely new congregations. Likewise funds will be sought for building parochial schools at the primary, secondary, and college levels. In some very sizable religious denominations church instruction is concentrated into Sunday school and/or Bible class program. Educational plants for these programs, too, will require expansion.

The pressure to build more hospitals and to enlarge existing hospitals is evident through study of these and other factors:

1. The Nation's increasing population;
2. Broadening of the scope of health services performed in hospitals;
3. Popular acceptance of techniques performed by doctors in hospitals;
4. Hospital insurance;
5. Medicare;
6. Health education—Preventive medicine; and
7. Lengthening lifespan.

The Hill-Burton grants of Federal funds to hospitals, usually for one-third of the cost of a hospital building project has assisted materially in keeping available hospital facilities reasonably current with the need. In connection with most hospital building projects borrowed funds are required, whether or not a Hill-Burton grant was involved. It has been a very satisfactory combination, and an effective method of accelerating expansion of available hospital facilities.

Still other loans will be required for the building of nursing homes, homes for the elderly, public rental housing, etc. In the past some projects in these relatively newer public facility fields have been obliged to search diligently for loan funds unless the obligation was—

1. Insured by an agency of the Federal Government;
2. Guaranteed by an agency of the Federal Government;
3. Guaranteed by a strong religious denomination;
4. A satisfactory past performance record; or
5. Based on a recent demonstration of strength such as participation in a building fund campaign.

## 2. AVAILABILITY OF INVESTABLE FUNDS

As the Nation's economy expands, the opportunities for savings are simultaneously expanded. Large portions of the savings can and usually are productively invested for extended periods of time. Selection of the specific vehicle for investment varies among types of investors and with further changes related to trends in economic conditions. The past record of performance of a general investment classification, the relative rate of return which it offers, and the contracted term of arrangement are all factors which determine relative popularity of a specific type of investment at a particular time.

Since the overall performance record of church, school, and hospital bonds and notes of private nonprofit organizations has been for an extended period of time far better than the average for all debt

securities, it seems very probable that the future market for this class of securities will tend to broaden. While there have recently been a few scattered instances of promotional lending, it is assumed that unworthy loans are not likely to interest the careful and informed investor. Historically securities in the religious and nonprofit corporation category have yielded the investor a somewhat higher interest return so that individuals, banks, insurance companies, pension funds, etc. have found it profitable to participate in these issues. It is assumed that future financing will have a similar relative degree of variation in yield and return. The practice of providing for serial retirement of loans is almost universal with religious and nonprofit organization loans. It has long been a characteristic of this type, and the practice may thus have contributed substantially to the excellent performance record. The serial mechanics have, moreover, been an important factor in marketing. Some investors require liquidation at certain dates and prefer to hold an obligation that matures at the appropriate time rather than rely on the marketability of some security which is due and payable at a later date. Church, school, and hospital loans are usually written for a shorter term of years than other corporate or utility obligations. Thus the combination of serial maturities and relatively shorter maximum term and a fair rate more ideally meet the requirements of investors than many other types of investment opportunities.

The continuance of sound lender and underwriting practices, the continuing excellent performance of loans and issues in the private nonprofit organization group, adequate competitive rates, and mechanics tailored to meet the investor's preferences and requirements are of importance to all segments of the securities market. As the total volume of individual savings grows, the volume of purchases in the group under study should grow. Likewise in periods of healthy economic climate participations by institutions should grow. However, it is likely that the underwriting industry will not be content to rely merely on normal volume increases. This has been a fairly competitive and aggressive field, and there is every likelihood that effective promotion of the product will further expand its total volume.

### 3. FACILITIES FOR SERVICE

Church, school, and hospital financing in volume is currently feasible largely because the field was soundly developed by securities underwriters. Persistent education and selling for more than a half century was involved in getting recognition from investors over a wide geographic area and in getting recognition among financial analysts for larger institutional accounts. Many issues are listed in the reports of the valuation committee of the National Association of Insurance Commissioners as being "Eligible for Amortization" when included among insurance company investments. A goodly number of the larger issues have been rated by Fitch Investors Service, New York.

There is keen competition among the top underwriters in the field. During recent years several large insurance companies, metropolitan banks, labor union treasuries and pension funds have been interested in direct loaning. The outlook for the future is that sound institutions with a sound building or expansion project will be well served. Unique

in this specialized field of finance is the combination of several strong motivations; namely, (1) the usual and customary desire to produce a profit, (2) betterment of facilities and environment for mankind, and (3) preservation of a virile religious influence through improvement of churches and church institutions.

## CHAPTER 3

### State Aids for Local Public Facilities\*

#### INTRODUCTION

In the years since World War II growth in population and the movement of people from cities to suburbs have created a great demand for public services and public facilities. The newly populated suburbs have required new schools, new roads, new libraries, new sewerage facilities, new fire stations, and so on. At the same time, in the central cities especially, but also in the rural areas, the inadequacies of public facilities constructed before the 1930's became apparent. Overcrowded, antiquated schools, and narrow streets unsuited to postwar traffic flows cried for attention as did the lack of facilities for such diverse public services as recreation, public health, and sewerage. This demand for public construction often far outran the ability of the local government to finance it.

To what extent have the States come to the aid of local government in building public facilities? This study investigates the functional areas in which localities receive State aid for capital outlay, the criteria for distributing such aid, and the growth of State aid in the postwar period. It also attempts to arrive at some conclusions as to the possible future course of State aid for capital outlay.

The accurate assessment of State aid for capital outlay has been hampered severely by lack of adequate data. Only in the area of highways is detailed annual data by State available and the nature of highway financing necessitates estimation of that portion of aid going for construction purposes. In the area of education, not only is some construction aid hidden in general aid programs, but also the national total of aid for capital outlay is reported only biennially.<sup>1</sup> Data on other aid is available only in census of governments years. Since there is great variation in capital outlay expenditure and in aid for capital outlay from year to year, the conclusions drawn from just 3 years may be misleading.

The 1962 Census of Governments is at present the most recent source of fairly comprehensive information on State payments to local governments. The detailed discussion of the range of State aid programs is thus based on that year, and primarily upon the data from that publication. Where necessary, data originating in publications

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<sup>1</sup>In U.S. Office of Education, Statistics of State School Systems, biennial survey of education in the United States.

of the Bureau of Public Roads, U.S. Public Health Service, U.S. Office of Education and the Council of State Governments also have been used.

This investigation has been concerned only with the State governments. In the past, most of Federal aid to local governments has been channeled through State governments. Thus, under the census definition of State payments to local governments, these Federal funds would have appeared as State aids. Because the census does not for some States report separately Federal and State contributions to local programs, it was necessary to exclude some entire programs in some States from our totals. The major Federal programs which were affected to some extent by this treatment are return of Federal grazing, mineral, and forest revenue to county of origin for roads and schools, and Federal aid programs for hospital construction and airport construction.

The dollar amounts cited in the tables apply only to aid by States to local government for public facilities. In addition, in some functional areas, some States have aided private facilities. When possible such programs are mentioned; however, data on the amounts of such aid are not available nor is information on criteria for distributing it.

#### THE SCOPE OF STATE AID

In contrast to the Federal Government, whose initial aid program in a functional area is often for construction purposes, State governments have concentrated aid for current operations. Only a little over 6 percent of all State aid in 1962 was specifically for capital outlay.

State aids for construction of local facilities are widespread however, in two functional areas—highways and education. In the fiscal year 1962 State aid financed 16 percent of municipal and county road and street construction, and some 12 percent of local school construction. All other functional areas receive relatively small State contributions for local public facilities and accounted for only about 10 percent of State aid for capital outlays in the fiscal year 1962. Table 1 shows the aid for capital outlay for each function given by each State in 1962. Table 2 shows total capital outlay and State aid for capital outlay for each functional area.

TABLE 1.—State aid for capital outlay, by function and by State, 1962

[In thousands]

State	Total	Highways	Education			Other
			Local schools		Junior colleges	
			Grants	Loans		
Alabama.....	\$8,924	\$6,491	\$1,995	\$438		
Alaska.....	584		532			\$352
Arizona.....	2,749	1,749		<sup>1</sup> 1,000	(?)	
Arkansas.....	2,683	2,683				
California.....	118,935	29,612		78,954	\$5,000	5,369
Colorado.....	4,120	4,120				
Connecticut.....	14,221	1,760	8,366			
Delaware.....	12,491	237	12,254			4,095
Florida.....	34,877	2,967	26,897		2,137	
Georgia.....	32,943	2,052	28,285			2,606
Hawaii.....	11,631	1,047		10,247		337
Idaho.....	1,701	1,701				
Illinois.....	22,572	17,401		5,000		171
Indiana.....	13,973	12,848		1,125		
Iowa.....	9,944	9,444	500			
Kansas.....	1,491	1,491				
Kentucky.....	1,437	1,437	(?)			
Louisiana.....	2,833	2,833				
Maine.....	1,813	570	876	(?)		367
Maryland.....	38,348	7,378	11,237	13,385	5,725	623
Massachusetts.....	22,933	1,842	16,194			4,897
Michigan.....	34,598	21,893	11,400	24	1,281	
Minnesota.....	7,054	6,192		422		440
Mississippi.....	12,377	5,717	6,660			
Missouri.....	2,960	1,861	1,099			
Montana.....	807	807				
Nebraska.....	4,419	4,419				
Nevada.....	524	524				
New Hampshire.....	1,375	39	1,336			
New Jersey.....	19,147	3,200	15,947			
New Mexico.....	1,799	799				
New York.....	75,101	14,083	37,878	(?)	(?)	23,140
North Carolina.....	1,505	1,505		(?)		
North Dakota.....	1,617	1,561		(?)		56
Ohio.....	27,326	27,326				
Oklahoma.....	7,406	7,313				93
Oregon.....	5,521	5,521				
Pennsylvania.....	56,996	10,452	35,000			11,544
Rhode Island.....	1,675	83	1,592			
South Carolina.....	3,814	1,476	2,338			
South Dakota.....	1,459	1,459				
Tennessee.....	7,418	7,050				368
Texas.....	7,035	7,035				
Utah.....	4,149	751	3,398			
Vermont.....	5,709	873	4,160			676
Virginia.....	2,323	2,261		(?)		62
Washington.....	26,534	6,410	20,000			124
West Virginia.....						
Wisconsin.....	10,694	9,505		1,189		
Wyoming.....	675	520		155		
Total.....	691,527	259,300	247,944	111,939	14,143	58,201

<sup>1</sup> Estimated.<sup>2</sup> States have programs, but 1962 expenditures not available.<sup>3</sup> States have programs, but gave no aid in 1962.

Source: U.S. Department of Commerce, Bureau of Public Roads, "Highway Statistics," 1962; Bureau of the Census, "State Payments to Local Governments, Census of Governments," 1962, vol. VI (topical studies), No. 2; U.S. Office of Education, Bureau of Educational Research and Development, Public School Finance Programs, 1962-63.



TABLE 2.—*Capital outlay by function, by level of Government, and State aid, 1962*

[In millions]

	Total	State direct	Local direct	State aid
Education.....	\$4, 009	\$988	\$3, 021	\$374
Higher education.....	919	854	95	14
Local schools.....	3, 026	100	2, 926	360
Highways.....	6, 978	5, 403	1, 575	258
Hospitals.....	382	176	207	9
Sewerage.....	886	-----	886	6
Local parks and recreation.....	209	-----	209	1
Natural resources.....	344	161	183	1 5
Housing and urban renewal.....	781	2	779	32
Air transportation.....	253	26	227	2 15
Water transport and terminals.....	185	52	133	(3)
Correction.....	128	81	47	-----

<sup>1</sup> Includes flood control.<sup>2</sup> Includes Federal aid.<sup>3</sup> Aid amounted to only \$400,000.

Source: U. S. Bureau of the Census, "State Payments to Local Governments," Census of Governments, 1962, vol. VI (Topical Studies) No. 2; "Compendium of Government Finances," Census of Governments, 1962, vol. IV (Government Finances) No. 4.

## HIGHWAYS

More States have programs of aid to localities for highways than for any other purpose. In the fiscal year 1962, some \$1.3 billion of aid was given to local governments for county and city roads and streets by 47 States; all States except Alaska, Montana, and West Virginia. West Virginia has taken direct responsibility for local roads, so that comparable outlays appear as direct expenditures in the West Virginia accounts.

In the fiscal year 1962, States gave \$830 million in aids to counties, \$400 million to municipalities, \$93 million to townships, and a very small amount (\$0.15 million) to special districts. In this year, counties and townships together devoted a total of \$814 million of local receipts for highways, while municipalities devoted \$1,145 million of local receipts for highway purposes. Thus, while State grants to counties and townships constituted about half of total receipts, State grants to municipalities amounted to only one-fifth of total receipts. Table 3 shows major sources of highway finance and State aid for highway construction over the period from 1946 to 1962.

The amount of State funds used for capital outlay can be estimated, although the moneys of all but a few State aids are placed in the general highway funds, not earmarked for specific purposes. We estimate that in 1962, \$258 million or 20 percent of total State aid was used for capital outlay. In addition, some \$327 million was spent directly by the States for capital outlay on local roads.

There are four general categories of State aid for highways:

1. Shared taxes.
2. Grants-in-aid.
3. State bonds for local road construction.
4. Reimbursement of local governments for work done on State highways.

## SHARED TAXES

Thirty-six States have earmarked a portion of State revenue, totaling \$886 million in 1962, to be returned to local governments for highways. The taxes so earmarked are diverse, although most of the revenue devoted to highways comes from the taxing or licensing of automobiles or gasoline. The rationale for earmarking these revenues for highways is that the highway users are thus paying for highway maintenance and construction.

In 26 States the motor fuel sales tax is shared with counties and/or cities. In 12 States, motor vehicle license revenue is shared; in some of these States only fees from commercial vehicle licenses are shared. Eight States return a portion of "highway user revenue," (which includes one or more of gasoline tax, registration fees, weight taxes, and other taxes pertaining to highway users). Colorado diverts part of its motor vehicle property tax to local governments and Florida shares its auto transportation mileage tax.

Other States devote portions of taxes not closely connected to highway use to local roads. Arkansas, North Dakota, and Oklahoma share their severance taxes with local governments; Mississippi, part of its general sales tax revenue; and South Dakota, its fish and game license revenue.

TABLE 3.—*The role of State aid in the financing of local roads and streets, 1951-63*

[In millions]

Year	State aid	Federal aid	Borrowing	Total receipts	Ratio of State aid to net receipts <sup>1</sup>	Capital outlay	State aid for capital outlay
1951.....	\$696.0	\$9.0	\$304.2	\$2,122.0	0.385	\$715.0	\$154.7
1952.....	762.0	17.7	550.3	2,540.8	.386	860.0	112.7
1953.....	823.2	18.7	353.5	2,506.0	.386	956.0	225.3
1954.....	888.0	18.7	405.4	2,685.4	.393	1,016.0	232.6
1955.....	921.4	16.8	614.6	3,015.8	.386	1,089.0	176.6
1956.....	991.9	21.3	492.8	3,068.0	.388	1,087.3	203.0
1957.....	1,084.1	28.3	577.5	3,344.0	.396	1,132.5	208.6
1958.....	1,126.7	26.3	513.8	3,397.4	.394	1,204.5	261.8
1959.....	1,176.3	20.9	686.7	3,654.0	.399	1,142.4	173.5
1960.....	1,234.9	30.3	622.4	3,720.1	.403	1,150.4	203.0
1961.....	1,226.0	30.9	635.7	3,928.3	.376	1,224.7	209.8
1962.....	1,317.0	31.1	598.0	3,957.8	.395	1,284.6	259.3
1963.....	1,396.5	34.8	633.6	4,181.9	.397	1,312.6	255.7

<sup>1</sup> Receipts exclusive of Federal aid and borrowing.

Source: U.S. Bureau of Public Roads, Highway Statistics, 1951-63.

## GRANTS-IN-AID

Eleven States make direct grants to counties for rural roads, sometimes designated as "farm to market roads." Fourteen States make grants to cities for streets, usually for all streets although a few States limit their aid to "connecting streets" or "arterial roads."

In addition to these broad grants, several States give aid to local governments identifiable for specific purposes. Massachusetts and Wisconsin give aid for bridges; in Wisconsin the aid is limited to swing and lift bridges. Several States give flood aid. In Mississippi aid is given to "seawall counties" for construction of seawalls to protect the highways from flood damage; Wisconsin gives aid for repair of flood damage to roads; and in California aid is given for repair

of storm damaged roads. New Jersey gives aid for lighting of local roads.

A form of State aid which facilitates local road construction is aid for debt service, given by six States, although in two States, Mississippi and Missouri, such aid is given only for specific bridges.

#### CRITERIA FOR ALLOCATION OF SHARED TAXES AND GRANTS

The States have employed a multitude of formulas for distributing the shared taxes and/or the grants among local governments. Most States divide the amount to be distributed into two, three, or four parts, each to be allocated according to a different criterion. The combinations of criteria used differ from State to State.

Most States employ some concept of need or road use to allocate part of State aid funds. Four States employ some measure of road use: Colorado and Nevada use vehicle mileage, while Arizona and Louisiana use motor fuel sales. This latter measure conforms less closely to road use but approximates the return of a portion of the gasoline tax to county or city of origin. Five States distribute funds according to motor vehicle registrations, and four, according to motor vehicle license revenue, which is a slightly different measure of number and kind of vehicle in use. Eighteen States use road mileage, an uncomplicated measure of need, to allocate funds and States use (county or city) area as a criterion for aid.

A second portion of aid funds may be distributed according to criteria other than road use or need for roads. In 11 States part of State aid is distributed equally among the counties or cities and in 15 States some aid is distributed according to population.

In addition, particularly in allocating aid funds, States have taken into account the local contribution to the project and local ability to finance roads. Four States distribute grant funds in fixed ratio to local expenditure, while Illinois and Massachusetts require a minimum local effort. Kansas, Massachusetts, and Missouri allocate a portion of aid according to assessed valuation. Louisiana and Minnesota give aid for approved projects according to need.

Finally, Massachusetts and New Jersey leave some aid to be distributed at the discretion of the State highway authority, and Georgia and Nebraska leave the distribution of some kinds of aid to special statute.

#### STATE BONDS FOR LOCAL ROADS

In eight States<sup>2</sup> the proceeds of highway bonds issued by the State have been distributed to participating local governments to finance the construction of local roads. Typically the State then withholds from the local government's share of highway user taxes an amount sufficient to pay the annual debt service on the bonds. This method of financing is necessary due to restrictions on debt incursion by counties in Hawaii and Maryland; it is also a notably useful aid to local units in other States which have come close to their debt limits for purposes of road construction.

<sup>2</sup> Georgia, Hawaii, Maryland, Massachusetts, New Jersey, Tennessee, Vermont, and Washington.

On December 31, 1962, approximately \$162.5 million in such bonds was outstanding. Two States, Georgia and Maryland, issued bonds equaling some \$24.4 million in 1962.

In addition, bonds to finance county roads are issued by the Florida Development Commission since neither the State nor the counties can issue bonds for this purpose. The debt service is paid from the county shares of the gasoline tax. In 1962 the Florida Development Commission issued \$26.8 million in such bonds.

#### REIMBURSEMENT FOR WORK ON STATE HIGHWAYS

Twelve States include among their intergovernmental payments to local governments reimbursement to cities or counties for construction or maintenance work performed on State-owned highways. Such payments should not really be classified as State aid to the local governments even though they are intergovernmental transfers of funds, since they are essentially payments for services performed by the local governments.

#### STATE RESPONSIBILITY FOR CONSTRUCTION AND MAINTENANCE OF LOCAL ROADS

A final form of State assistance to local governments for roads, which does not show up on lists of State aids, is the direct assumption by the States of the responsibility for construction and maintenance of local roads, bridges, etc. In West Virginia, a State which gives no aid for highways, the State has taken over the complete task of road-building, and in other States, for example, Delaware, Kentucky, and Virginia, the State has taken over a portion of the task. Such expenditures are then shown along with direct expenditures on State highways in the State budget.

#### EDUCATION

The largest dollar volume of State aid to localities for capital outlay is given for education. In 1962, an estimated \$374 million was given to local governments for local school or junior college construction by 32 States. Specific aids for construction of school facilities account for almost all of these funds. In a few States relatively minor amounts for capital outlay are distributed as part of general grants for local public elementary and secondary schools. In most instances, separate determination of these amounts was possible.

State aid for school construction takes two forms: grants-in-aid and loans.

#### GRANTS-IN-AID

In 1962, 23 States had programs of grants for local school construction, amounting to almost \$248 million, while 5 States made grants of \$14 million for junior college construction.

In some States the funds for capital outlay grants for education are derived mainly from earmarked taxes. Usually the main taxes earmarked for this purpose are fairly broadly based. In Michigan and South Carolina, for instance, the major earmarked tax from which funds for school construction are obtained, is a portion of the general sales tax. Alabama has earmarked portions of several taxes, including the general sales tax and the income tax, for schools. In 1962,

Alaska earmarked all of its tobacco tax for schools with about 30 percent allocated to school construction. In other States, the funds for aid for local school construction are appropriated each year.

In addition, a number of States give aid for construction purposes to private colleges and universities; however, sufficient data are not available to assess the extent of such aid.

#### LOANS

In 1962, some \$112 million in loans was made available to local schools by 15 States for capital outlay. Of this \$112 million, California's loan program amounted to \$79 million or 70 percent of all loans. Actually, in 1962, California authorized over \$219 million in loan funds, of which only \$79 million was spent in that year. This form of aid, which is usually bond financed, in effect allows local governments to use State borrowing power for school construction. The loans are usually repaid by the levying of a special local property tax, with various forgiveness provisions for the financially weaker localities.

The size of the loan program is much more variable from year to year than is the grant program since individual States usually float only one bond issue in a multiyear period and make loans over a short number of years while the money lasts. A few States have revolving loan funds. In one such State, Virginia, in 1962, approximately \$15 million of school building projects were "lined up" waiting for more funds to become available through the repayment of previous loans.

#### CRITERIA FOR ALLOCATION OF GRANTS AND LOANS

The distribution of State aid for education has been based on a number of criteria, although considerably fewer than are used for aid for highways. Aid is most commonly allocated according to the size of the school district as measured by number of pupils in average daily attendance, teachers, or teacher units. The first two measures differ as class size varies. The use of teacher units as a measure attempts to take class size into account.

In allocating funds, about half of the States take account of approved expense for school facilities providing matching funds for approved construction. The criterion for aid is the willingness of the local government to provide funds, with the shares depending on assessed valuations.

A third commonly used criterion is the need for new facilities. Measures of this need have included the number of pupils in overcrowded or in substandard school buildings, with allowances for rapid growth in school enrollment.

Some of the loan programs reserve eligibility to those school districts which have approached the limits of their borrowing power, either in terms of a constitutional debt limitation or in terms of a given millage rate for debt service. In a few States, aid is restricted to those school districts in which at least a certain percent of students are State wards or children of State employees.

## OTHER AIDS

The magnitude of State aid payments for the range of public facilities, exclusive of education and highways, is quite small. Federal aid programs, such as the Hill-Burton aid for hospital construction, finance capital outlay, and most States seem to prefer not to supplement these programs, but rather to put what aid they do offer into current operations.

In 1962, States gave about \$58 million of aid for miscellaneous types of capital outlay, of which \$32.3 million went for housing and urban renewal and slightly over \$15 million went for water resources projects—about \$6 million for pollution control, and \$9 million for flood control.

Seven States account for over 90 percent of "other" aid with New York and Pennsylvania accounting for more than 60 percent of "other" aid. New York granted about \$23 million in aid for capital outlay for "other" purposes, and Pennsylvania granted about \$11 million; California and Massachusetts granted about \$5 million each, while Connecticut, Florida, and Georgia each granted over \$2.5 million.

In addition to the \$58.2 million listed here, there is State aid amounting to some \$7.4 million for purposes which include some capital outlay. Some \$5.6 million of this is for California's aid to county fairs and for juvenile homes and camps. Most of the rest is for aid for airports.

There is further another \$2 million or so consisting of combined State and Federal funds for capital outlay. Most of these funds, again, are for airport construction.

## HOSPITALS

As of January 1, 1964, 12 States had active programs of State grants-in-aid for hospitals. In addition, 7 other States have had active programs at some time since 1945. The dollar volume of the aid has been relatively small. The Department of Health, Education, and Welfare has identified approximately \$175 million of State funds appropriated for State grants-in-aid for hospitals in the 1946-63 period—of which California accounts for \$75 million. In 1962, about \$10 million of aid was given by States to local governments and private hospitals. The size of State programs varies from that of California which exceeded \$10 million annually by 1963-64, to Missouri which, since 1949, has appropriated a total of \$60,000 for six county hospitals.

Four of the States having programs as of July 1, 1964, offered grants to nonprofit private hospitals and/or nursing homes as well as to public facilities, while the other eight States limited themselves to public hospitals.

All of the States, except Hawaii and Missouri, provide for some form of matching of local and/or Federal funds. Hawaii and Missouri make direct grants to hospitals. Missouri grants are \$10,000 per county memorial hospital and the Hawaii Legislature makes appropriations direct to specific projects. In North Carolina, the State provides the difference between the total cost and the combined Federal aid and a local share based on fiscal capacity.

In addition to giving State grants, Hawaii has allowed counties to use the State's borrowing power in financing medical facilities projects.

#### AIRPORTS

Fifteen States augment the Federal program for construction, maintenance, and operation of local airports with State programs.

One form of aid for airports is the return of aviation fuel taxes to county or city of origin. However, one cannot assume that all of the county or city share does indeed go to the airport or further that that portion which does go to the airport is used for capital outlay rather than current operation. In 1962, shared aviation tax revenues amounted to \$1.2 million.

There are also direct grants for airport construction. These grants usually supplement Federal funds, and are distributed in fixed ratio to local expenditures. The total amount of these grants for airports in 1962, including the Federal portion, was almost \$15 million.

#### LIBRARIES

Again State aid to libraries usually, although not necessarily, takes the form of a supplement to the Federal program of aid to libraries. In 1962, 19 States had programs of aid to local libraries. The total amount of aid to libraries in 1962, both State aid and Federal administered through the States, was \$13.7 million. Probably only a very small portion of this amount actually went into library building (although the Michigan and Virginia programs call for "aid to new libraries" up to a fixed amount).

Federal aid for libraries is distributed in fixed ratio to local expenditure. Four States also give aid in ratio to local expenditure, while most of the others distribute funds according to population with some requirement of minimum effort on the part of local governments.

#### HOUSING AND URBAN RENEWAL

Massachusetts and New York give State aid to local governments for urban renewal programs. In 1962 New York's aid, which includes housing, amounted to some \$20.4 million and Massachusetts aid amounted to about \$200,000. Massachusetts distributes its aid in fixed ratio to local expenditure, while New York has financed projects through State loans and since 1961 has had the option of making capital grants up to one-half the net cost of urban renewal programs over and above Federal aid.

Hawaii, Massachusetts, and Pennsylvania also offer aid for housing construction. In 1962, Pennsylvania aid amounted to \$6.9 million, Massachusetts aid (earmarked specifically for the elderly and for veterans) amounted to \$4.6 million, and Hawaii aid amounted to \$116,000, making a total for all three States of \$11.7 million. The distribution criterion for Massachusetts and Pennsylvania (elderly) was a fixed ratio to local expenditures, and for Hawaii and Massachusetts (veterans) it was essentially reimbursement for local costs.

## SEWERS, SEWAGE TREATMENT, AND FLOOD CONTROL

Four States offer aid for sewage treatment works, and California gives aid to the local units who provide sewer service to the State fair site. The total amount of aid in 1962 was about \$6 million. In Pennsylvania, distribution of aid was determined by the secretary of health, while in the other three States aid was distributed in fixed ratio to local expenditures.

Connecticut and Florida have grant programs which distributed some \$4.3 million in 1962 for flood control. Connecticut provided one-half the cost of the project over that covered by Federal aid and Florida provided for reimbursement of local governments.

## PORTS AND NATURAL RESOURCES

Three States, Illinois, Maine, and Washington, gave a total of \$409,000 to localities for ports in 1962. Illinois and Maine distributed the funds on an "as required" basis. Washington returned 75 percent of the proceeds from lease of tidelands, harbor areas, and waterways to the county of origin for harbor improvement.

Colorado, Hawaii, and North Dakota gave a total in 1962 of \$322,000 of aid to localities for natural resources. In North Dakota the aid was expressly for water conservation projects and distributed in fixed ratio to local expenditures. In Colorado and Hawaii the aid was distributed by their respective departments of natural resources.

New York and Virginia had programs for aid for parks. New York gave some \$1.4 million in fixed ratio to local expenditure and Virginia gave some \$62,000 as appropriated.

## OTHER

Three States, California, Oregon, and Tennessee, aid county agricultural fairs. California, in addition to returning part of its pari-mutuel tax for fair operating expenses, makes grants for construction of "approved projects." California also has district fairs which are financed out of direct State expenditures. Tennessee provides aid in fixed ratio to local expenditure, while Oregon distributes funds according to assessed valuation.

A unique class of local facilities is given State aid in California. California gives aid to juvenile homes and camps, part of which goes for reimbursement of costs and equipment in fixed ratio to local expenditure up to a maximum amount per project.



TABLE 4.—State aid for capital outlay, by function, 1951 to 1962

[In millions]

Year	Education	Highways	Education and highways	Other	Total
1951	\$124.2	\$151.7	\$275.9	(1)	-----
1952	192.0	112.7	304.7	\$27.1	\$331.8
1953	208.0	225.3	433.3	(1)	-----
1954	180.1	232.6	412.7	(1)	-----
1955	163.0	176.6	339.6	(1)	-----
1956	195.7	203.0	398.7	(1)	-----
1957	246.6	208.6	455.2	27.9	483.1
1958	<sup>2</sup> 327.4	261.8	599.2	(1)	-----
1959	(1)	173.5	(1)	(1)	-----
1960	<sup>2</sup> 370.0	203.0	573.0	(1)	-----
1961	(1)	209.8	(1)	(1)	-----
1962	374.0	259.3	633.3	58.2	691.5
1963	(1)	320.0	(1)	(1)	-----
1964	<sup>2</sup> 523.7	357.5	881.2	<sup>3</sup> 75.0	956.2
1965	(1)	376.8	(1)	(1)	-----

<sup>1</sup> Not available.<sup>2</sup> Minor differences in coverages for 1958, 1960, and 1964.<sup>3</sup> Estimated.

Source: U.S. Office of Education, "Financing Public School Facilities," Misc. No. 32, 1959; U.S. Office of Education, "Statistics of State School Systems," biannual reports; Bureau of Public Roads, "Highway Statistics, 1951 to 1962"; U.S. Bureau of the Census, "State Payments to Local Governments," Census of Governments, 1952, 1957, and 1962, vol. VI (Topical Studies) No. 2.

### THE GROWTH IN STATE AID

Table 4 shows the amounts of State aid for capital outlay from 1951 to 1962. Total State aid for capital outlay purposes has doubled from 1952 to 1962, financing a slightly increased proportion of local capital outlay (8.5 percent in 1962 as compared to 6.9 percent in 1952), while local capital outlay increased by 70 percent in the 10-year period.

The rate of increase of State aid for capital outlay has been slightly less than the rate of increase of all State aids to localities, and in 1962 aid for capital outlay comprised 6.3 percent of total aid while it amounted to 6.6 percent of total aid in 1952.

Looking at the role of State aid for capital outlay within the broader picture of the total State budget, we find that while State capital outlays aids increased at about the same rate as total State direct expenditure, total State direct capital outlay increased at an even greater rate. Table 5 indicates these relationships.

A closer look at State aid shows that in the 10-year period from 1952 to 1962 the proportion of aid for education going for school construction has decreased, although the absolute amount of aid for school construction has increased. The rate of school age population growth has slowed in recent years and the pressure for school construction programs to accommodate the "baby boom" has relaxed. Increments in State aid are now devoted mainly to improvement of school program and to debt service for school districts rather than to school construction.

A recent projection <sup>3</sup> indicates that total capital outlay for local schools will not increase in 1970 beyond the present rate of 65,000 classrooms per year. If construction costs remain constant until 1970, capital outlay expenditures might actually decline. The projections of State aid in 1970, shown in table 6, are based on that study. Illustrations

<sup>3</sup> "Local School Expenditures: 1970 Projections," Selma J. Mushkin and Eugene P. McLoone, RM 382, Council of State Governments, 1966.

tion I assumes no change in construction costs, the experience of the recent past. State aid for school construction is estimated to approach \$600 million if the conditions of illustration II prevail and to decline slightly if the conditions of illustration I prevail. If State aid programs concern themselves only with expansion of school facilities rather than with renovation and replacement, State aid will fall even farther (construction costs remaining constant). Aid would also be lowered if Federal aid for school construction replaces State payments rather than local shares.

From 1951 to 1953 State aid for highways (including shared taxes) has formed a fairly constant proportion of local receipts for highway purposes other than Federal aid and bond finance. Just under two-fifths of such receipts has come from State aid.

TABLE 5.—State aid for capital outlay by function, in amounts and as a percent of total State aid, total State and local capital outlay, and total State and local direct expenditures, 1952, 1957, and 1962

[Dollar amounts in millions]

	1952	1957	1962	Percent increase	
				1952-57	1952-62
State aid for capital outlay .....	\$332	\$483	\$692	45.5	108.4
(a) Education .....	192	247	374	28.6	94.7
(b) Highways .....	113	209	259	84.9	129.2
(c) Other .....	27	28	58	3.7	114.8
Total State aid .....	5,044	7,196	10,906	42.7	116.2
(a) Education .....	2,523	4,087	6,474	61.9	156.6
(b) Highways .....	728	1,082	1,316	48.6	80.7
Total State capital outlay .....	2,658	5,163	7,213	94.2	171.4
Total State direct expenditure .....	10,790	16,921	20,375	56.8	88.8
Total local capital outlay .....	4,778	7,453	8,096	55.9	69.4
Total local direct expenditure .....	20,073	30,621	39,831	52.5	98.4
EXHIBIT					
State aid for capital outlay as a percent of—					
Total State aid .....	6.6	6.7	6.3		
Total State capital outlay .....	12.4	9.4	9.6		
Total local capital outlay .....	6.9	6.5	8.5		
Total State direct expenditure .....	3.1	2.9	3.4		
Total local direct expenditure .....	1.6	1.6	1.7		
State aid for capital outlay for education as a percent of total State aid for education .....	7.6	6.0	5.8		
State aid for capital outlay for highways as a percent of total State aid for highways .....	15.5	19.3	19.7		

Source: U.S. Bureau of the Census, "State Payments to Local Governments," Census of Governments, 1952, 1957, and 1962, vol. VI (Topical Studies) No. 2; "Compendium of Government Finances," Census of Governments, 1952, 1957, and 1962, vol. IV (Government Finances) No. 4.

TABLE 6.—State aid for capital outlay, by function, 1957, 1962, and 1970 (projected)

[In millions of dollars]

	1957	1962	1970 (projected)	
			Illustration I	Illustration II
Local schools .....	\$246.6	\$374.0	\$515	\$598
Highways .....	208.6	259.3	330	400
Other .....	27.9	58.2	110	160
Total .....	483.1	691.5	955	1,158

Source: U.S. Bureau of the Census, "State Payments to Local Governments," Census of Governments, 1957 and 1962, vol. VI (Topical Studies) No. 2; Selma J. Mushkin and Eugene P. McLoone, "Local School Expenditures: 1970 Projections," Council of State Governments, November 1965; Selma J. Mushkin and Robert Harris, "Transportation Outlays of States and Cities: 1970 Projections," Council of State Governments, May 1965.

On the whole the amounts of capital outlay financed by State aid have increased, but in a rather erratic fashion. There were variations in total capital outlay and in borrowing over the interval. In a year when local governments borrow heavily, State aid for capital outlay would be relatively low (for example, see 1955 and 1959).

In projecting State aid for highway construction, we have derived our lower estimate of \$330 million from a recent study<sup>4</sup> that made projections of transportation outlays and of highway user receipts from which most State highway aid comes. This estimate is shown in table 6 as illustration I.

Illustration II shows an estimate developed from Bureau of Public Roads projections of capital outlay by local governments and of revenue sources. The Bureau of Public Roads projections assume a lower proportion of bond financing than do the other projections. The estimate derived from these projections calls for approximately \$400 million in State aid, with a possible variation of perhaps \$10 million in either direction, depending upon the proportion of projected borrowing done by local governments.

Finally, State aid for "other" capital outlay has more than doubled since 1952. This increase has resulted mainly from an expansion in programs which were in operation in 1952 rather than from the institution of new aid programs. Almost all of this expansion has occurred since 1957.

Projection of State aid for "other" public facilities is extremely difficult, if not impossible, due to the polyglot character of the category and the uncertainty as to future State action in these areas. We set as the lower limit (illustration I) represents an absolute annual increase approximately the same as that from 1957 to 1962. In this projection the implicit assumption was of moderate growth only of present programs similar to recent past experience. As the upper limit (illustration II) we have projected a rate of growth similar to the 1957 and 1962 experience. However, if more States should develop sizable programs of aid for local government—for example, in the areas of broad unmet needs, such as water pollution abatement, housing and urban renewal or parks and recreation, "other" State aid could be larger. For instance, in November 1965 New York State voters approved a \$1 billion bond issue for State aid to communities over a 6-year period for the construction of sewerage facilities. The State will provide 30 percent of the total cost, and local government 40 percent, with the remaining 30 percent provided by grants under Federal Water Pollution Control Act.

If more States embark on such programs, State aid for capital outlay could increase markedly the slower growth in aids, resulting from the lessening of demands for school facilities as the rate of growth of school-age population declines, would be more than offset. These developments are difficult to predict as they depend on a new program to meet a statewide need. Even the high estimates of State aid for capital outlay may be an understatement as no allowance is made for States moving into new areas of concern.

<sup>4</sup>"Transportation Outlays of States and Localities to 1970," Selma J. Mushkin and Robert Harris, RM 375, Council of State Governments, 1965.

In summary, from the limited data available it is possible to discern that State aid for capital outlay has been small and is not likely to increase considerably without a significant change in the role taken by the States with respect to local governments. The two major areas in which aid has been given are not areas which can continue construction at current rates for an extended period. If aid in "other" areas continues only in programs currently in operation, it is not likely to more than double in the next 5 years, an increase which, because of the small proportion of aid now devoted to "other" capital outlay, will not offset the projected slower growth in aid for education. If, however, the States undertake sizable new programs in hitherto neglected areas, such as urban renewal and recreation, State aid for public facilities could expand at a faster rate than in the recent past.

## CHAPTER 4

### State Credit Aid for Public Facilities\*

#### INTRODUCTION

This is a study of State credit aid programs to assist municipalities and other local public bodies in the provision of public facilities and works. State credit assistance is a means of securing lower interest rates and easier terms on loans for local governments. For this reason, it encourages local public bodies to undertake projects for the construction of public facilities. It is not a substitute for local expenditures and is distinct from direct State grants to local bodies.

To date, 17 States have credit assistance programs to aid local governments in the financing of public facilities. There are several varieties of credit assistance: (1) direct loans, wherein the State government loans money to the local jurisdiction, enabling the local unit to avoid private lenders and obtain favorable interest rates and repayment schedules; (2) guarantees of debt service payment, wherein the State pledges to pay principal and interest on local bond issues should the local unit be unable to do so; and (3) grants to cover debt service, wherein the State contributes in part or in whole to the local payment of debt service. This latter is, in effect, a variation of a grant-in-aid, whereby the payment is made over the life of the bond issue rather than during the period of construction.

Credit assistance programs, numbering 26, are in effect in 17 States. The direct-loan type is used in 17 cases, payments of debt service in 5, and guarantees of debt service in 4.

Assistance is granted most often for the construction and repair of public school buildings and facilities. Eleven States—California, Indiana, Maryland, Minnesota, New Hampshire, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, and Wyoming—provide credit aid for this purpose. In addition, Connecticut, Massachusetts, and New York have credit assistance programs for moderate rental housing projects; Maryland, New Hampshire, New Jersey, Ohio, and Wisconsin for water and sewerage facilities; Indiana for public works; Indiana, Minnesota, and Pennsylvania for industrial development; California for small craft harbors; Indiana for flood control; Maryland for airport and airport facilities; Rhode Island for library construction; Washington for reclamation projects; and Wyoming for irrigation projects.

Since 1947, 11 States have provided the aggregate sum of \$2,008,095,850 to aid local governments in financing school construction. Of this amount, the major portion, \$1,329,700,000, has been authorized by California since 1953. Amounts provided in other States range

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\*Prepared by Carol Krotzki, under the direction of George A. Bell, Council of State Governments, 1966, with minor editing by committee staff.

from \$325,402,150 in Pennsylvania and \$190,024,000 in Maryland to \$1,469,294 in Wyoming. From 1947 to 1958, Hawaii expended \$34,709,000, which was to be repaid by local districts. This program has been superseded since statehood by direct State school construction.

The number of States undertaking credit assistance programs for school construction has increased steadily from the inauguration of Maryland's program in 1950 to the most recent enactment—Rhode Island in 1961. California and Pennsylvania programs, which have developed into the largest, began in 1953. Programs also were initiated in North Dakota, in 1954; Indiana, in 1956; New Hampshire, Ohio, and Wyoming, in 1957; and Minnesota, in 1959. All of these were preceded by the Hawaiian territory program in 1947. Since 1961, however, no new school construction credit assistance programs have been adopted.

The trend in expenditures for school construction credit assistance has continued upward despite the recent lack of additional States. The average annual spending by the States in 5-year periods has been \$50,315,195 from 1951 to 1955, \$153,280,087 from 1956 to 1960, and \$196,445,887 from 1961 to 1965.

It is difficult to predict future expenditures for school construction credit assistance. However, with few exceptions, most agencies agree that credit assistance programs in their States will increase as demands for public school construction outstrip the amount of money available to local governments for this purpose.

Washington and New York had credit assistance programs for reclamation and public housing in 1946. Since 1950, in each biennium one or two additional States have established such programs in varying functional areas. The latest was the New Jersey sewerage program in 1965.

The second largest expenditure for credit assistance has been in public housing. Three States with such a program are Connecticut, Massachusetts, and New York. Led by New York's \$952,574,548, they have provided \$1,115,222,634 in funds. The next greatest total expenditure, \$62,314,145, was for economic development programs. Of this amount, Pennsylvania is responsible for \$61,266,606. The other States involved are Indiana and Minnesota.

The sum of \$26,605,201 has been expended for the remaining programs. Thus a total of \$1,204,141,980 has been spent for all programs except school construction. Since 1946, the average annual spending in 5-year periods in toto has been \$44,259,968 from 1946 to 1950, \$58,442,670 from 1951 to 1955, \$55,298,173 from 1956 to 1960, and \$82,827,583 from 1961 to 1965. Total expenditures for all programs, including school construction, have been \$3,212,237,830.

State enactments of credit assistance programs have grown slowly but constantly. The most recent enactment is Wisconsin's program for water pollution control in 1966. If the trend continues, more States will adopt such programs in the future; and expenditures will continue to rise. Such programs, therefore, promise to become an increasingly important means of State financial assistance to local governments.

## CALIFORNIA

Purpose: Acquisition, construction, and purchase of equipment for public schools; school construction (school building aid law, 1952).

Type of credit assistance: Direct loan.

Eligible borrowers: School districts.

Maximum interest rate: Interest rate has ranged from a low of 2½ percent to a high of 4 percent since 1952; current rate is 3½ percent.

Repayment period: 30 years, repayment of loans made for multipurpose facilities is extended for an additional 10 years.

Maximum loan-to-value ratio: Up to 100 percent.

Other conditions: Any school district which has exhausted its legal bonding capacity and has unhouseed pupils by a prescribed formula is eligible for assistance.

Purpose: Construction, maintenance, and operation of small craft harbors (Public Resources Code, sec. 5827).

Type of credit assistance: Direct loan.

Eligible borrowers: Cities, counties, and districts.

Other conditions: The loan must not provide a debt liability exceeding 1 year's revenue, and provisions must be made for interest payments and for a sinking fund to pay principal in not more than 40 years; unless, at an election, two-thirds of the qualified electors voting have authorized the governing body to accept, expend, and repay the loan; such a loan shall not be made if written protest thereto is signed by owners of one-half or more of the assessed valuation of taxable property in the city, county, or district.

Maximum interest rate: 4 percent in 1966.

## CONNECTICUT

Purpose: Construction of moderate rental housing projects (sec. 8-70 of the General Statutes of the State of Connecticut).

Type of credit assistance: Direct loans.

Eligible borrowers: Local housing authorities.

Maximum interest rate: Not less than par and accrued interest.

Repayment period: 50 years.

Maximum loan-to-value ratio: 100 percent.

Determinations regarding soundness of loan: Predicated upon the State's supervision and direction of site selection, construction design, and inspections during process of construction, including a yearly review and approval of operational statements.

## INDIANA

Purpose: Preparation of surveys, plans, and specifications for the construction of public buildings and facilities undertaken to provide employment during period of industrial dislocation and unemployment (Burns Indiana Statutes Annotated 53-601).

Type of credit assistance: Direct loan.

Eligible borrowers: Governing bodies of the State, counties, cities, towns, townships, and school cities.

Maximum interest rate: None.

Repayment period: Not to exceed 3 years.

Other conditions: No political or municipal corporation may become indebted to an account in the aggregate exceeding 2 percent on the value of the taxable property within such corporation.

Purpose: Industrial development. The program includes the construction or extension of streets, sidewalks, sewerlines, waterlines; the lease or purchase of property (Burns Indiana Statutes Annotated 53-6063).

Type of credit assistance: Direct loan.

Eligible borrowers: Municipalities.

Maximum interest rate: 2 percent.

Repayment period: Any period not to exceed 19 years.

Maximum loan-to-value ratio: 100 percent.

Other conditions: The amount of any such loan to any one municipality shall not exceed \$100,000.

**Purpose:** Flood control. Program includes the cleaning and straightening of channels, of streams; the building or repairing of dikes, levees, or other flood protective works; the establishment of floodways (Burns Indiana Statutes Annotated 27-1125).

**Type of credit assistance:** Direct loan.

**Eligible borrowers:** Municipalities.

**Maximum interest rate:** 1½ percent per annum.

**Repayment period:** Not to exceed 10 years.

**Maximum loan-to-value ratio:** 75 percent.

**Other conditions:** The amount of any such loan to any one municipality shall not exceed \$100,000; loans in the aggregate cannot exceed \$2 million annually.

**Purpose:** School construction (Burns Indiana Statutes Annotated 28-163).

**Type of credit assistance:** Direct loan.

**Eligible borrowers:** Local school corporations.

**Maximum interest rate:** 4 percent.

**Repayment period:** 20 years.

**Other conditions:** In order to qualify for an advancement under the provisions of this act, the consolidated school corporation is required to raise, either by a bond issue or by a cumulative fund tax levy, or, by both, a sum of money equivalent to not less than 2 percent of the adjusted assessed valuation of its geographical district; advancement must not exceed the sum of \$2,000 per pupil accommodated in the new structure less the sum of any money raised by and made available to the corporation.

**Purpose:** Emergency school construction (Burns Indiana Statutes Annotated 28-175).

**Type of credit assistance:** Direct loan.

**Eligible borrowers:** School corporation or public school.

**Maximum interest rate:** 1 percent.

**Repayment period:** 20 years.

**Other conditions:**

(1) School corporation or school has issued its bonds for the purpose of constructing, remodeling, or repairing school buildings in 90 percent of the maximum amount allowable under the constitution and laws of Indiana.

(2) School corporation or school has established and maintained a tax levy of at least 50 cents on each \$100 of taxable property for school buildings for 3 years prior to the time when application is made for loan.

(3) No advance shall be made to a school corporation whose average resident enrollment in grades 1 through 8 is less than 30 per grade in proposed school buildings to be built and to a school corporation whose average resident enrollment in grades 1 through 12 is less than 270 in proposed school buildings to be built.

#### MARYLAND

**Purpose:** Construction of water and sewerage facilities (ch. 719, acts of 1963).

**Type of credit assistance:** Direct loan.

**Eligible borrowers:** Municipal corporations or sanitary districts.

**Maximum interest rate:** 4 percent.

**Repayment period:** 14 years.

**Maximum loan-to-value ratio:** 25 percent.

**Purpose:** Public school construction (ch. 1, acts of 1949; ch. 609, acts of 1953; ch. 80, acts of 1956; ch. 86, acts of 1958; ch. 25, acts of 1962; ch. 542, acts of 1963; ch. 635, acts of 1965).

**Type of credit assistance:** Direct loan.

**Eligible borrowers:** Counties and mayor and city council of Baltimore.

**Maximum interest rate:** 5 percent per annum.

**Repayment period:** 15 years.

**Other conditions:** The amount of State funds that can be loaned to any district is limited to the amount which could be amortized by 90 percent of the total funds distributed to districts under provisions of State laws relating to income tax, racing tax, recreation tax, amusement tax, license tax, and incentive fund for school construction.



Purpose: Construction, improvement, and development of airports and airport facilities (ch. 117, acts of 1964).

Type of credit assistance: Direct loan.

Eligible borrowers: Counties, municipalities, and city of Baltimore.

Maximum loan-to-value ratio: 25 percent.

Other conditions: Airport must be included in the Federal airport plan.

Maximum interest rate: 2¾ percent.

Repayment period: 20 years.

#### MASSACHUSETTS

Purpose: Housing project for veterans and their families (ch. 200, acts of 1948).

Type of credit assistance: Guarantee of debt service payment, annual grants to cover debt service.

Eligible borrowers: Housing authority.

Other conditions: The total amount of notes and/or bonds so guaranteed shall not exceed \$225 million in the aggregate; the total amount of annual grants to cover debt service for any 1 year shall not exceed \$5,625 million.

Purpose: Housing for elderly of low incomes (ch. 668, acts of 1953).

Type of credit assistance: Guarantee of debt service payment.

Eligible borrowers: Housing authority.

Other conditions: The amount of bonds and/or notes guaranteed shall not exceed \$125 million.

#### MINNESOTA

Purpose: Planning and financing economic development by private enterprise (MS-472).

Type of credit assistance: Direct loan.

Eligible borrowers: Local or area redevelopment agencies.

Maximum interest rate: 3½ percent.

Repayment period: 20 years.

Maximum loan-to-value ratio: Not in excess of 20 percent of the cost of such redevelopment project.

Determinations regarding soundness of loan: Local or area redevelopment agency must hold funds in an amount equal to or property of a value equal to not less than 10 percent of the cost of establishing the project; the redevelopment agency must obtain from other sources a firm commitment for all funds over and above the State agency's loans.

Purpose: School construction; sites for schoolhouses and for acquiring, bettering, furnishing, or equipping school districts (MS-124.42, as amended by laws of 1965, ch. 875; MS-124.43, as amended by laws of 1965, ch. 875).

Type of credit assistance: Debt loan service; direct loan.

Eligible borrowers: Any school district.

Maximum interest rate: 3½ percent.

Repayment period: 30 years.

Other conditions: Required levy for debt service in any year must exceed the school district's maximum effort debt service levy by 10 percent or by \$5,000, whichever is less; to qualify for direct loan district must have a net debt in excess of 98 percent of its debt limit or within \$20,000 of such limit.

#### NEW HAMPSHIRE

Purpose: School construction, enlargement, or alternation (RSA-195-B).

Type of credit assistance: Guarantees of debt service payments.

Eligible borrowers: Receiving districts under area school plan and cooperative school districts.

Other conditions: Guarantee cannot exceed the total aggregate sum for the entire State of \$10 million; the outstanding amount of principal and interest cannot exceed \$10 million.

Purpose: School building aid (RSA-198:15).

Type of credit assistance: Annual grant to cover debt service.

Eligible borrowers: School districts, city maintaining a school department, and cooperative school districts.

Maximum interest rate: Rate determined by local district and lending institution.

Repayment period: 20 years.

Purpose: Construction of sewerage systems, sewage treatment and disposal plants, or other facilities necessary for pollution control (RSA-149.5, as amended).

Type of credit assistance: Guarantee of debt service payments.

Eligible borrowers: Municipalities, towns, cities, counties, or districts.

Other conditions: Guarantee cannot exceed the total aggregate sum for the entire State of \$35 million.

#### NEW JERSEY

Purpose: Public sanitary sewerage facilities (regional) (ch. 121, laws of 1965).

Type of credit assistance: Direct loans for the preparation of preliminary engineering plans, detail design, engineering drawings and specifications, and contract documents for the construction of a new or the expansion of an existing sewerage facility.

Eligible borrowers: Counties, municipalities, or any public agency established for constructing or operating a regional public sanitary sewerage facility.

Maximum interest rate: Loan is repaid without interest unless construction is not started within 3 years of loan's date in which case the loan is repaid with 2 percent interest per annum; entire loan shall be repaid on or before the date when contracts have been awarded for construction of the proposed sewerage works.

Maximum loan-to-value ratio: 100 percent of engineering.

#### NEW YORK

Purpose: Public housing (secs. 70 and 73, public housing law).

Type of credit assistance: Direct loan; State subsidy; i.e., annual grants for debt service.

Eligible borrowers: Public housing authority or municipalities.

Maximum interest rate: Loans made at the rate of interest paid by the State for the funds loaned plus a proportionate share of the actual direct cost of the borrowing.

Repayment period: 50 years.

Maximum loan-to-value ratio: Not to exceed 2 percent of the project cost or \$100,000, whichever is less.

Other conditions: Municipality in which project is located must at least match the subsidy made by the State.

#### NORTH CAROLINA

Purpose: The retirement of school bonds issued by the county (SB-262, ch. 1079).

Type of credit assistance: Annual grants to cover debt service.

Eligible borrowers: Counties or city administrative units.

Other conditions: Leftover funds from grants-in-aid (provided by the State to various counties for the construction, reconstruction, enlargement, and improvement of public facilities) may be used for the retirement of school bonds issued by the county.

#### NORTH DAKOTA

Purpose: construction and improvement of public school buildings (ch. 15-60, Century Code).

Type of credit assistance: Direct loan.

Eligible borrowers: School districts.

Maximum interest rate: 2½ percent.

Repayment period: 20 years.

Maximum loan-to-value ratio: 10 percent; not to exceed 15 percent in emergencies.

Other conditions: School districts must be levying the maximum mill levy for the maintenance of a building fund and must have an existing bonded indebtedness to the maximum limit permitted by law.

## OHIO

Purpose: Purchase of classroom facilities (3318.01-3318.20, Revised Code).

Type of credit assistance: Direct loan.

Eligible borrowers: School districts.

Maximum interest rate: None.

Repayment period: 23 years.

Other conditions: Prior to the approval of State funds, the bonded indebtedness of the school district must be brought to within \$5,000 of the total bonding capacity of such district; the voters in such districts must approve a one-half mill levy against the tax duplicate to run for 23 years or until the capital outlay (without interest) by the State has been repaid.

Purpose: Water and sewer facilities (1525.11, Ohio Revised Code).

Type of credit assistance: Direct loan.

Eligible borrowers: Boards of county commissioners.

## PENNSYLVANIA

Purpose: Industrial development projects. Program includes the construction or acquisition of industrial buildings or land for industrial districts (Pennsylvania laws 537, 1956).

Type of credit assistance: Loans to community nonprofit industrial fund agencies.

Eligible borrowers: Industrial development agencies.

Maximum interest rate: None.

Repayment period: Usually not more than 20 years.

Maximum loan-to-value ratio: In areas whose average unemployment is 6 percent or higher for the 60 months prior to the application, 40 percent; in areas whose average unemployment is 4 to 6 percent for the 60 months prior to the application, 30 percent; if the industrial development project is exclusively a research and development facility, the authority may contract to loan the industrial development agency 45 percent of cost of the industrial development project.

Determinations regarding soundness of loan: Borrowing agency must have a "responsible" tenant.

Determinations regarding availability of private financing: Commitment by first mortgage lending institution.

Purpose: School construction and facilities (secs. 2572, 2574, 2575, and 2575.1 of the Public School Code of 1949).

Type of credit assistance: Annual rental payments to reimburse school districts for construction costs.

Eligible borrowers: Approved school districts.

## RHODE ISLAND

Purpose: School housing (title 16-7-41, General laws of Rhode Island).

Type of credit assistance: Annual grants to cover debt service; and construction costs.

Eligible borrowers: Communities.

Other conditions: To be eligible to receive impact aid, community must be bearing a tax of \$3 per thousand on equalized weighted assessed valuation.

Purpose: Library construction and capital improvement (H-1716, laws of 1966).

Type of credit assistance: Annual grants to cover debt service.

Eligible borrowers: City, town, or any free public library.

Other conditions: Recipient city or town must match State grant.

## WASHINGTON

Purpose: Reclamation and development of arid, swamp, overflow, and logged lands for development as agricultural lands (RCW-89.16.020 to RCW-89.16.050).

Type of credit assistance: Direct loan.

Eligible borrowers: Reclamation districts.

Maximum interest rate: 8 percent; current rate 4 percent.

Repayment period: 15 years.

## WISCONSIN

Purpose: Financing of pollution prevention and abatement facilities.  
Type of credit assistance: Annual grants to cover interest costs.  
Eligible borrowers: Municipalities.  
Repayment period: Not less than 15 years; not more than 30 years.  
Maximum loan-to-value ratio: Up to one-third cost of the project.

## WYOMING

Purpose: Irrigation projects; the construction of water development projects (secs. 11-653 and 11-656, Wyoming Statutes).

Type of credit assistance: Direct loan.

Eligible borrowers: Legal subdivisions of Wyoming; irrigation districts and public power and irrigation districts.

Maximum interest rate: 4 percent.

Repayment period: 40 years.

Maximum loan-to-value ratio: 100 percent.

Determinations regarding soundness of loan: Feasibility report by engineers of natural resources board.

Determinations regarding availability of private financing: Where financing is unavailable and upon refusal of all other lending agencies in area where loan is being requested.

Other conditions: Loan must be adequately secured by mortgage on improvements or by assessment of benefits where allowed by law.

Purpose: School building (secs. 21-100 through 21-108, Wyoming Statutes).

Type of credit assistance: Direct loan.

Eligible borrowers: School districts.

Maximum interest rate: 3 percent.

Repayment period: Indefinite. One-fourth of 1 percent must be paid on original principal each year during first 10 years; 7 percent of original loan must be paid on principal beginning the 11th year and for duration of loan.

Maximum loan-to-value ratio: 100 percent.

Determinations regarding soundness of loan: Architectural feasibility and assessment of benefits for repayment.

Other conditions: School district must be at maximum bonded indebtedness and not able to float additional bond issues.

## State credit aids for construction of public facilities

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
California, small craft harbors.....											
Connecticut, public housing.....				\$23,715,600	\$8,608,979	\$28,168,773	\$4,849,240	\$11,453,967	\$12,766,675	\$8,957,530	\$2,209,000
Indiana:											
Public works.....								60,174	241,460	197,380	326,935
Flood control.....											
Maryland, airports.....											
Massachusetts, public housing.....						501,625	1,562,445	1,904,306	2,806,486	2,870,902	3,022,643
Minnesota, economic development.....											
New Jersey, sewerage.....											
New York, public housing.....	\$425,254	\$28,494,557	\$51,939,583	45,456,972	61,657,237	5,408,673	70,204,236	7,494,917	70,861,519	61,174,803	12,226,938
Pennsylvania, industrial development.....											
Washington, reclamation.....	189,747	107,017	132,974	134,500	437,422	246,600	205,924	21,219	119,500	45,000	464,573
Wyoming, irrigation.....											
Total by year.....	615,001	28,601,574	52,072,557	69,307,072	70,703,638	34,415,671	76,821,845	20,934,583	86,795,640	73,245,615	18,250,089
		1957	1958	1959	1960	1961	1962	1963	1964	1965	Total
California, small craft harbors.....				\$1,325,000	\$3,542,000	\$2,463,000	\$3,450,000	\$2,750,000	\$1,880,000	\$1,655,000	\$17,065,000
Connecticut, public housing.....	\$1,575,000	\$3,955,000	3,099,000	2,324,000	715,455	930,945					113,329,164
Indiana:											
Public works.....	200,481	82,900	160,700	112,287	384,140	65,801	219,675	276,665	109,326	2,437,924	
Flood control.....			150,000	319,832	222,500	141,000	140,000	185,000	212,000	1,370,332	
Maryland, airports.....		50,000	11,000	82,506			35,000		58,790	237,296	
Massachusetts, public housing.....	3,403,811	4,059,919	4,354,812	4,165,208	4,098,461	4,250,409	3,970,142	4,028,734	4,229,019	49,318,922	
Minnesota, economic development.....						64,000	422,479	345,651	215,409	1,047,539	
New Jersey, sewerage.....										750,000	750,000
New York, public housing.....	53,698,716	64,413,846	70,176,722	19,044,500	110,478,698	78,001,473	72,251,872	24,755,192	44,408,840	952,574,548	
Pennsylvania, industrial development.....	4,044,000	2,465,000	4,531,420	5,037,883	2,659,090	10,144,304	10,340	15,736,718	16,637,851	61,266,606	
Washington, reclamation.....	252,000	22,000	81,500	82,242	110,463	138,492	123,289	25,000	30,187	2,969,649	
Wyoming, irrigation.....	1,500,000				40,000				235,000	1,775,000	
Total by year.....	64,674,008	75,048,665	83,879,154	34,638,952	121,254,313	97,186,424	79,922,797	47,232,960	68,541,422		

## State credit aids for construction of public schools

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
California.....								\$35,100,000	\$62,000,000	\$76,300,000	\$115,900,000
Indiana.....											4,596,135
Maryland.....					\$7,890,000	\$14,451,000	\$9,256,000	11,410,000	9,488,000	8,175,000	2,592,000
Minnesota.....											
New Hampshire.....											
North Dakota.....									1,806,550	837,425	1,615,555
Ohio.....											
Pennsylvania.....								3,625,000	3,625,000	15,502,000	15,502,000
Rhode Island.....											
Wyoming.....											
Total by year.....					7,890,000	14,451,000	9,256,000	50,135,000	76,919,550	100,814,425	140,205,690

	1957	1958	1959	1960	1961	1962	1963	1964	1965	Total by State
California.....	\$117,500,000	\$70,900,000	\$144,100,000	\$107,100,000	\$105,300,000	\$107,800,000	\$130,700,000	\$149,200,000	\$107,800,000	\$1,329,700,000
Indiana.....	3,656,830	3,054,657	3,564,587	2,476,200	1,630,000	1,083,600	1,103,120	1,835,495	2,736,392	25,737,016
Maryland.....	17,969,000	14,026,000	4,440,000	13,863,000	5,443,000	20,636,000	13,385,000	16,090,000	20,910,000	190,024,000
Minnesota.....			1,251,969	5,778,936	378,090	366,045	15,127,060	1,145,457		24,047,557
New Hampshire.....	583,000	659,000	719,000	857,000	934,000	1,146,000	1,284,000	1,482,000	1,759,000	9,423,000
North Dakota.....	1,370,570	264,100	382,700	1,330,200	1,338,300	1,371,785	829,700	880,800		12,882,685
Ohio.....	10,000,000		10,000,000				10,000,000		51,000,000	81,000,000
Pennsylvania.....	23,516,600	23,516,600	21,207,500	21,207,500	32,650,000	34,717,700	40,250,000	44,082,250	46,000,000	325,402,150
Rhode Island.....					1,311,310	1,522,215	1,592,236	1,720,746	2,263,641	8,410,148
Wyoming.....	750,000		150,000			5,000	499,294		65,000	1,469,294
Total by year.....	175,346,000	112,420,357	185,815,756	152,612,636	148,984,900	168,648,345	214,770,410	216,436,748	233,389,033	

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**PART II. MUNICIPAL SECURITIES MARKET: PATTERNS,  
STRUCTURE AND PROBLEMS**

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## CHAPTER 5

# Characteristics of the Municipal Bond Market for New Issues\*

### INTRODUCTION

This chapter has been prepared to present a summary of the volume of municipal bond<sup>1</sup> financing in the postwar era and to describe this activity in terms of many of its characteristics. No particular attempt is made to explain reasons underlying the form of financing: such an exposition is far beyond the scope, time, and space allotted to this subject. In order to accomplish this objective, the chapter has been divided into three groups: (1) aggregate measures of market activity, (2) characteristics of new issues, and (3) characteristics of the issuing body. Statistics for the first section were obtained from the Daily Bond Buyer and the Treasury Department, and cover the entire postwar period. The need for a multitude of compilations (many previously unavailable) dictated that the second and third sections be limited to the period 1957 through 1965, since basic statistics maintained by the Investment Bankers Association of America are available for only these years.

Statistical data are presented in the chapter primarily through the use of bar charts. A more detailed compilation of data is provided in the statistical appendix.

### AGGREGATE MEASURE OF MARKET ACTIVITY

State and local governments and their political subdivisions have steadily grown in importance as borrowers of funds. In the first postwar year, 1946, 3,319 new issues of municipal bonds, with a total value of \$1.2 billion, were brought to the market. Over the next two decades, this activity was increased, until 6,059 issues (valued at \$11.1 billion) were brought to market in 1965.

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\* Prepared by John E. Walker, Research Director, Investment Bankers Association of America, with minor editing by committee staff.

<sup>1</sup> "Municipal" bonds are bonds issued by State and local governments and their political subdivisions. These bonds are often referred to as "tax exempts," since interest on such bonds is exempt from Federal and often State income tax.



TABLE 1.—*New issues of State and municipal bonds and notes*

[Amounts in millions]

Year	Long-term bonds					Short-term notes (maturities of 1 year or less)		
	Total		General obligation	Revenue	Public Housing Authority	Total		Public Housing Authority
	Number	Amount				Number	Amount	
1965.....	6,069	\$11,084	\$7,445	\$3,639	\$464	1,918	\$6,537	\$1,865
1964.....	6,314	10,544	6,886	3,658	636	1,824	5,423	1,892
1963.....	6,577	10,107	6,070	4,037	254	1,997	5,481	1,961
1962.....	6,515	8,558	5,892	2,666	382	2,174	4,763	1,727
1961.....	6,400	8,360	5,762	2,598	189	2,000	4,514	1,469
1960.....	6,529	7,230	5,035	2,195	383	1,868	4,006	1,283
1959.....	6,711	7,681	5,160	2,521	310	1,857	4,179	1,563
1958.....	6,855	7,449	5,725	1,724	182	1,668	3,910	1,675
1957.....	6,888	6,958	4,933	2,025	66	1,354	3,274	1,599
1956.....	6,495	5,446	3,776	1,670	199	1,194	2,706	1,759
1955.....	6,660	5,977	4,245	1,732	474	1,072	2,593	1,668
1954.....	6,526	6,969	3,755	3,214	374	1,221	3,350	2,433
1953.....	5,795	5,558	3,991	1,567	496	1,468	2,757	2,041
1952.....	5,313	4,401	2,938	1,463	305	1,097	2,049	1,206
1951.....	5,281	3,278	2,548	730	328	604	1,637	974
1950.....	5,861	3,694	3,134	560	59	672	1,611	887
1949.....	5,107	2,995	2,312	683	143	687	1,333	770
1948.....	4,706	2,990	2,440	550	66	472	1,005	496
1947.....	3,803	2,354	1,968	386	4	535	958	413
1946.....	3,319	1,204	998	206	19	567	741	339

Source: The Daily Bond Buyer.

Table 1 presents a yearly record of this financing providing a breakdown between long- and short-term issues and type of security (general obligation, revenue, and Public Housing Authority guaranteed issues).<sup>2</sup> The figures show that the dollar volume of all security types has grown substantially, with the major increase resulting from general obligation issues. The percentage increase for PHA's has been very great, as is the case for revenue bonds as well.

The increase in short-term financing has met the pace of the longer term bonds, increasing from \$741 million in 1946 (567 issues) to \$6,537 million (1,918 issues) in 1965.

Another measure of the activity of State and local units in the financial markets is the volume of outstanding debt. Table 2 presents annual data on the amount of privately held municipal and Federal Government debt from 1946 through 1965. The Federal debt has remained relatively stable at about \$200 billion, whereas State and local debt has increased from \$16 billion to \$91 billion over the same time interval.

The large increase in outstanding municipal debt has increased the market for outstanding securities, and coupled with the improved and increased tools and functions of brokers has improved the liquidity of municipal bonds. This, of course, is an important consideration in assessing the ability of the market to absorb additional securities.

<sup>2</sup> General obligation bonds are secured by the full faith, credit, and taxing power of the issuer. Revenue bonds are secured by revenues from the facility or facilities owned by the issuer of the bonds. Public Housing Authority bonds are revenue bonds which are additionally secured by pledges of funds by the Public Housing Authority of the Department of Housing and Urban Development.

## CHARACTERISTICS OF NEW ISSUES

Starting in 1957, yearly data are available in sufficient detail to permit an examination of some of the characteristics of new issues. Of particular interest is the method used by the governmental unit to sell the issue (type offering), the maturity distribution of new issues, and the uses for which the bonds are issued. Only long-term debt (maturity greater than 1 year) is considered.

TABLE 2.—*Privately held outstanding public debt*<sup>1</sup>

[Amounts in billions]

State and municipal				U.S. interest bearing			
Year	Amount	Year	Amount	Year	Amount	Year	Amount
1965	\$92.0	1955	\$37.5	1965	\$210.8	1955	\$107.6
1964	85.1	1954	32.4	1964	211.6	1954	104.5
1963	78.9	1953	27.3	1963	211.7	1953	101.6
1962	72.4	1952	24.5	1962	208.5	1952	109.6
1961	64.0	1951	22.3	1961	202.4	1951	188.9
1960	59.0	1950	19.8	1960	201.5	1950	199.0
1959	54.6	1949	17.3	1959	201.2	1949	193.1
1958	49.9	1948	15.4	1958	193.4	1948	192.9
1957	45.8	1947	13.6	1957	189.9	1947	200.4
1956	41.9	1946	12.8	1956	192.7	1946	215.2

<sup>1</sup> Includes U.S. interest-bearing securities not held by U.S. Government investment accounts and Federal Reserve banks. Also State and local securities not held by Federal agencies and trust funds; Federal Reserve banks; and State and local sinking funds, trust funds and investment funds.

Sources: The Daily Bond Buyer and the Treasury Bulletin: U.S. Treasury Department.

1. *Type offering.*—Almost without exception, new issues of bonds are sold by the issuing body to investment bankers<sup>3</sup> and only this form of financing is considered in this chapter. Investment bankers purchase bonds in order to distribute them to a large number of investors, including individuals, commercial banks, and insurance companies.

Basically, bonds are sold either through negotiation or by advertisement and subsequent bidding by prospective purchasers. Competitive bidding is required for issues guaranteed by the Public Housing Authority (commonly referred to as PHA's), most issues of general obligation bonds, and to a lesser extent also for revenue bonds.

Chart I shows separately the dollar volume of those new issues sold by competitive bidding and those sold by negotiation. Within each category a division is made between general obligation and revenue bonds.<sup>4</sup> Most apparent is the steady growth of both revenue and general obligation bonds sold as the result of competitive bidding and, with the exception of 1963, the rather constant level of bonds issued through negotiation.<sup>5</sup>

<sup>3</sup> Investment banker is a term applied to a security dealer or a dealer bank who underwrites securities (limited to municipal general obligation bonds in the case of dealer banks). It is the function of the investment banker to bring together those who wish to borrow funds by issuing securities and those who wish to lend funds, or invest by purchasing securities. Additionally, the investment banker assumes some market risk in this operation. Because of his knowledge of the markets and efforts to locate investors, the investment banker is able to purchase bonds at a price attractive to the issuer, sell bonds at a price attractive to the investor and normally profit from the transaction himself. See ch. 9 for a more complete discussion of the investment banker.

<sup>4</sup> Public Housing Authority bonds are not included.

<sup>5</sup> The very large dollar size and the small number of some revenue issues introduces large fluctuations in the dollar volume of such financing when the volume is measured for short periods of time (such as a year).

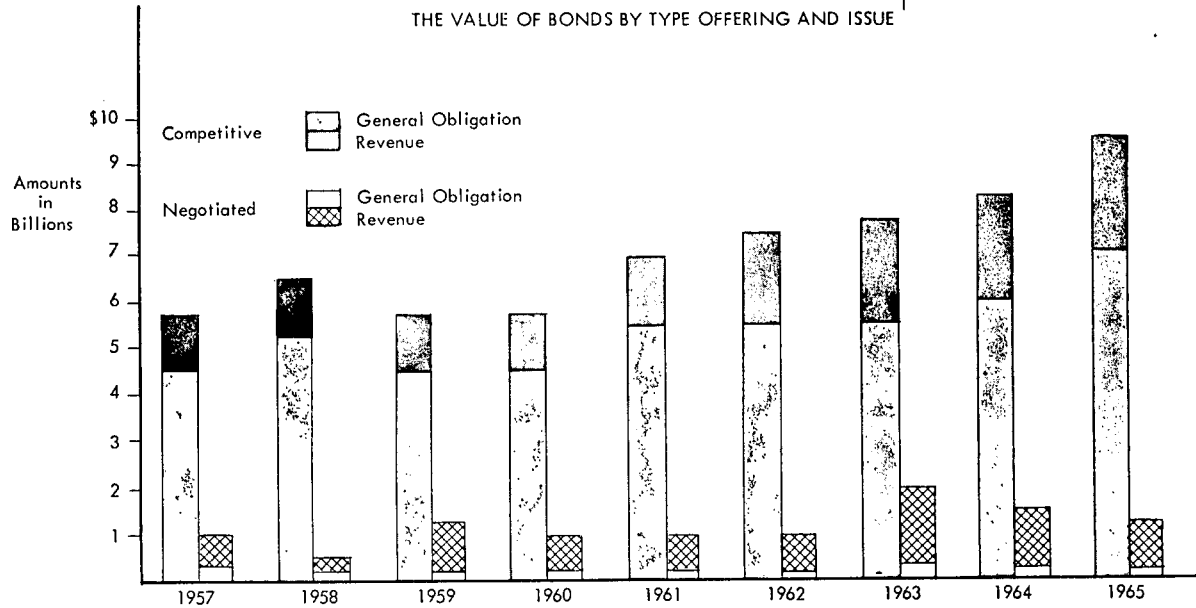
Chart II is similar to chart I but is expressed in terms of the number of new issues rather than the dollar volume. Other than a slight decrease in the number of general obligation bonds offered competitively and the larger (on a percentage basis) decrease of the same bonds offered through negotiation, this chart depicts relative stability in the number and distribution of new issues sold during the past decade.

A comparison of chart I with chart II shows that the dollar value of general obligation issues sold by negotiation is, on the average, much smaller (averaging \$242,000 in 1957 and rising to \$464,000 in 1965) than the value of issues sold by competitive bidding (the latter averaging \$908,000 in 1957 and \$1,575,000 in 1965). No readily apparent relationship of a similar nature exists for revenue bonds.

Chart III presents the data of charts I and II in percentage form. No discernible long run trend is present. The volume of general obligation bonds sold by competitive bidding held steady at about 96 percent as measured by value, and fluctuated between 80 percent and 90 percent as measured by the number of issues. New issues of revenue bonds sold by competitive bidding demonstrate more variability ranging from 52 percent to 71 percent as measured by value and 59 percent to 77 percent as measured by the number of issues. Additional statistical information is presented in table 1 of the appendix. (See page 134.)

CHART I

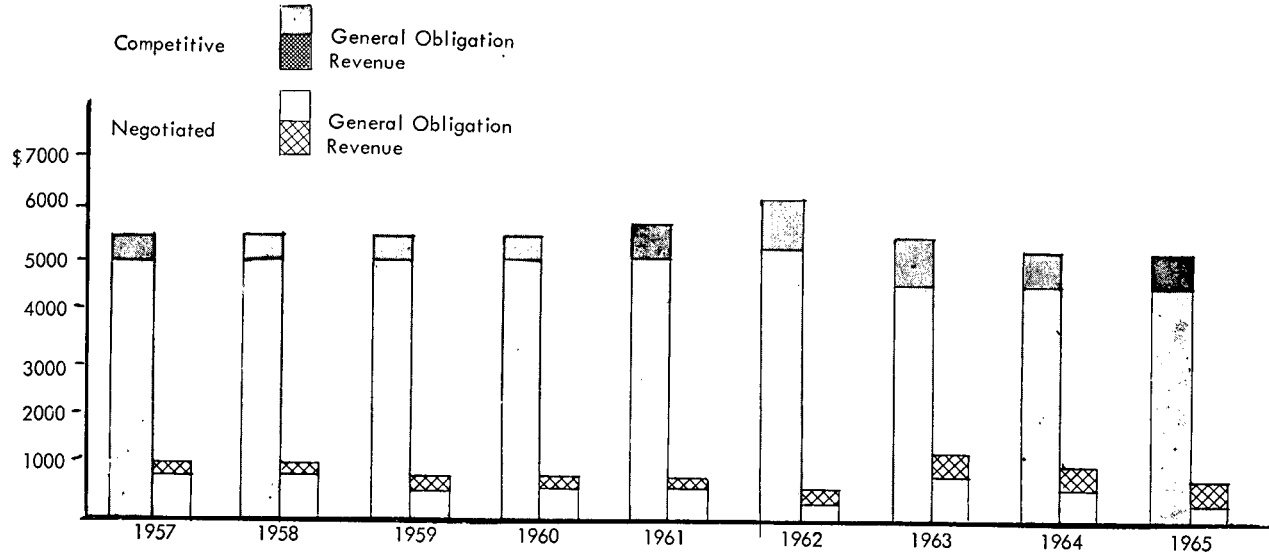
THE VALUE OF BONDS BY TYPE OFFERING AND ISSUE<sup>1</sup>



Source: Investment Bankers Association of America.

1. Excludes Public Housing Authorities issues.

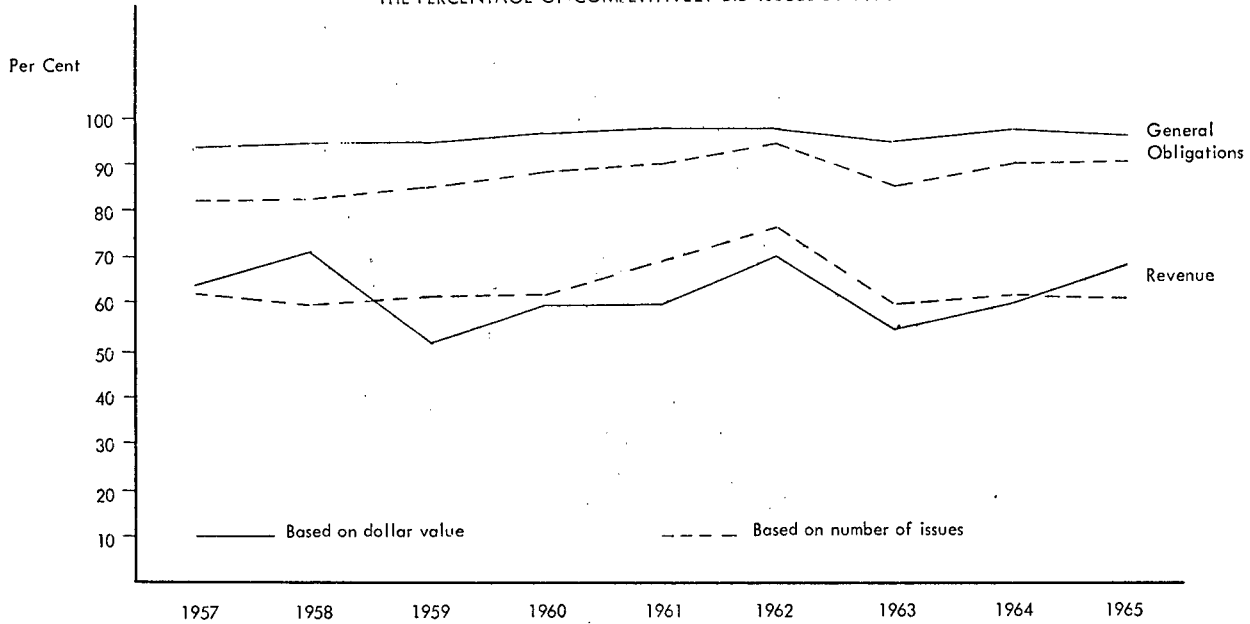
CHART II  
THE NUMBER OF ISSUES BY TYPE OFFERING AND ISSUE



Source: Investment Bankers Association of America.

CHART III

THE PERCENTAGE OF COMPETITIVELY BID ISSUES BY TYPE ISSUE



Source: Investment Bankers Association of America.

2. *Maturity*<sup>6</sup> *distribution*.—One of the most important aspects of new debt is the period over which that debt is repayable. Since serial bonds which mature at intervals are normal for general obligation issues, and term bonds which all expire at the end of one period are more prevalent for revenue issues,<sup>7</sup> the maturity distribution for these two types of securities may be expected to vary considerably. That variation is shown on charts IV through VI. In comparing maturities, the heavy preponderance of general obligation issues for the short maturities and the dominance of revenue issues for the longest maturities is apparent.

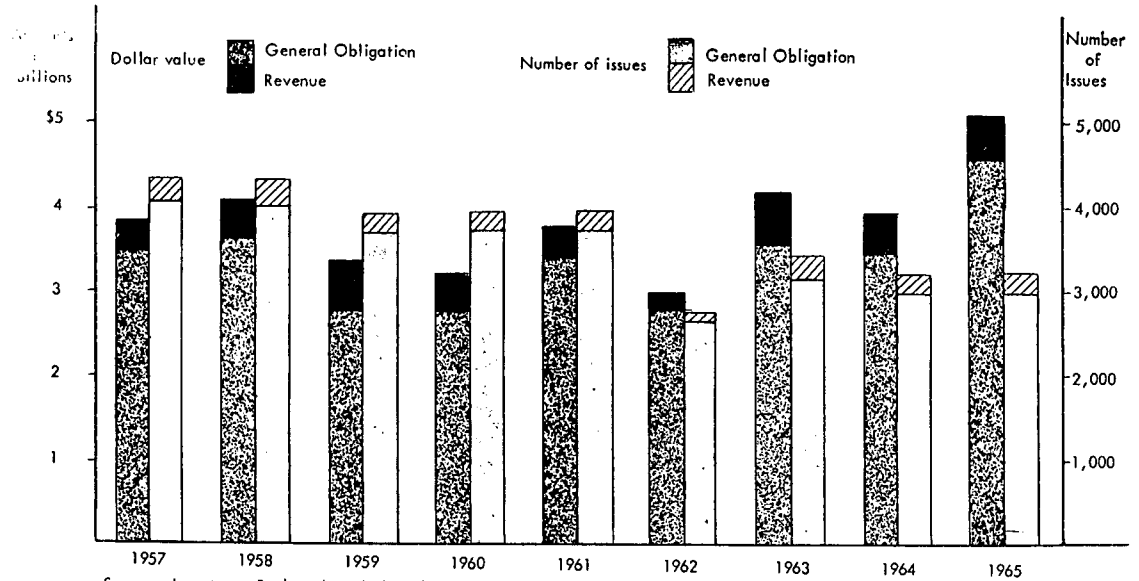
Examining each chart separately, several facts stand out. Chart IV shows the rather constant level—with the exception of 1965—from 1957 to 1965 of the dollar amount of general obligation issues with average maturities from 1 through 14 years, accompanied by a pronounced decline in the number of issues in this category. The volume of revenue financing was too small for time changes to be significant.

Chart V illustrates the large growth during the past 9 years in the dollar volume of revenue financing with an average maturity of from 15 to 30 years. Although general obligation financing still is larger in this category—about equal in 1965—the growth of financing has largely been in the form of revenue issues. The average size of both general obligation and revenue issues has increased during this time span. For maturities of 30 years or more years (chart VI), revenue financing dominates the picture. The dollar volume of both general obligations and revenue bonds of this maturity range has been erratic—due to the large dollar size of the issues and the small number involved—and obscures any trends if such are present. On the average, issues of this maturity are about \$10 million, but with wide variability.

<sup>6</sup> Maturity has been calculated by weighted average—the method most commonly used to measure bond maturity. Weighted average maturity refers to the average time period the debt is outstanding, weighted by the dollar amount of the debt. For example, a serial bond issue retiring \$1 million in 5 years, \$2 million in 6 years, and \$3 million in 7 years would have an average maturity of  $6\frac{1}{2}$  years reflecting the large amount due in 7 years. A term bond maturing in 10 years would have an average maturity of exactly 10 years, no matter how measured or weighted. The availability of funds for use by the issuer would be less because of sinking fund requirements.

<sup>7</sup> Term bonds are particularly used—and useful—in situations where the uncertainties of net revenues are higher than normal (e.g., new projects). Under such circumstances the use of serial maturities would increase the risk to both the issuer and the investor.

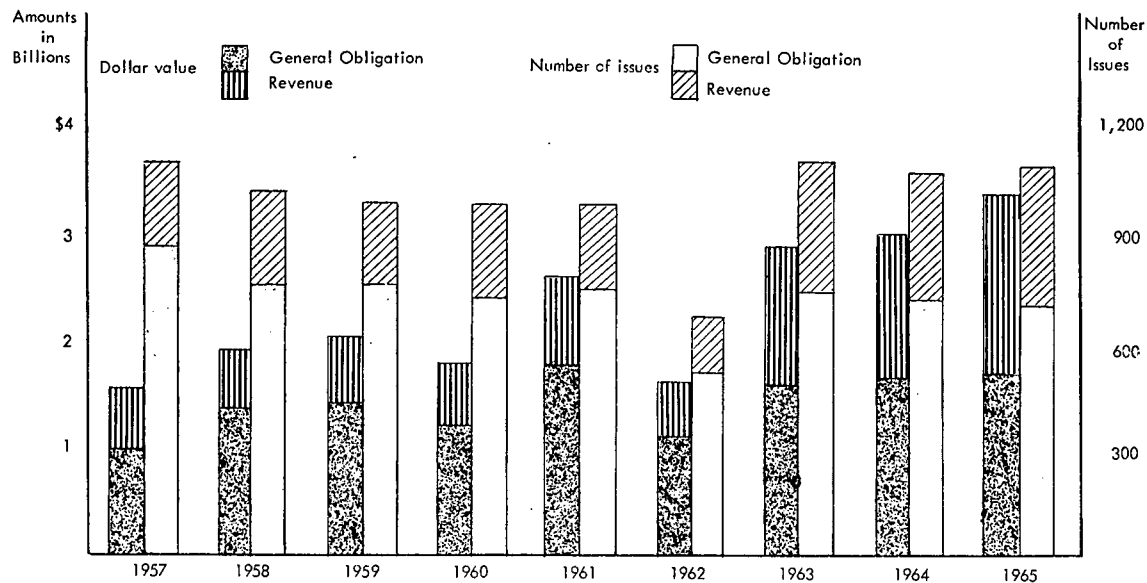
CHART IV  
 AVERAGE MATURITY 1 THROUGH 14 YEARS BY TYPE ISSUE



Source: Investment Bankers Association of America.

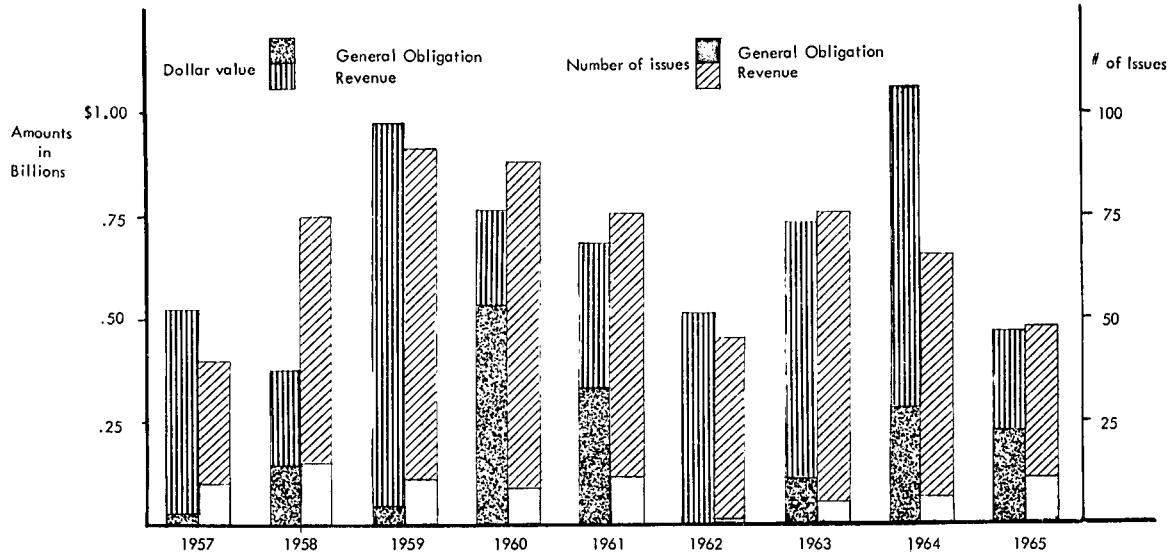


CHART V  
AVERAGE MATURITY 15 THROUGH 29 YEARS BY TYPE ISSUE



Source: Investment Bankers Association of America.

CHART VI  
AVERAGE MATURITY 30 OR MORE YEARS BY TYPE ISSUE



Source: Investment Bankers Association of America.

Charts VII and VIII concentrate on the proportion of bond financing by maturity grouping. As presented in chart VII, the average maturity distribution of general obligations has, with the exception of year-to-year fluctuation, changed very little during the past 9 years. There has been some decrease in the percentage in the 10 through 14 year range offset by increases in the 20 through 29 year and over 30 year brackets.

The proportion of revenue financing, chart VIII, in the ranges of 5 through 9 years and over 30 years has noticeably declined. This decline has primarily been offset by issues in the 20 to 29 year group. Additional statistical information is presented in table 2 of the appendix.

3. *Use of proceeds.*—In the main, the purposes for which bonds are issued have not changed markedly in recent years. Although data are available for more than 50 classifications of use, for the purpose of this study these have been aggregated into six basic categories (education, transportation, utilities and conservation, social welfare,<sup>8</sup> re-funding,<sup>9</sup> and miscellaneous).

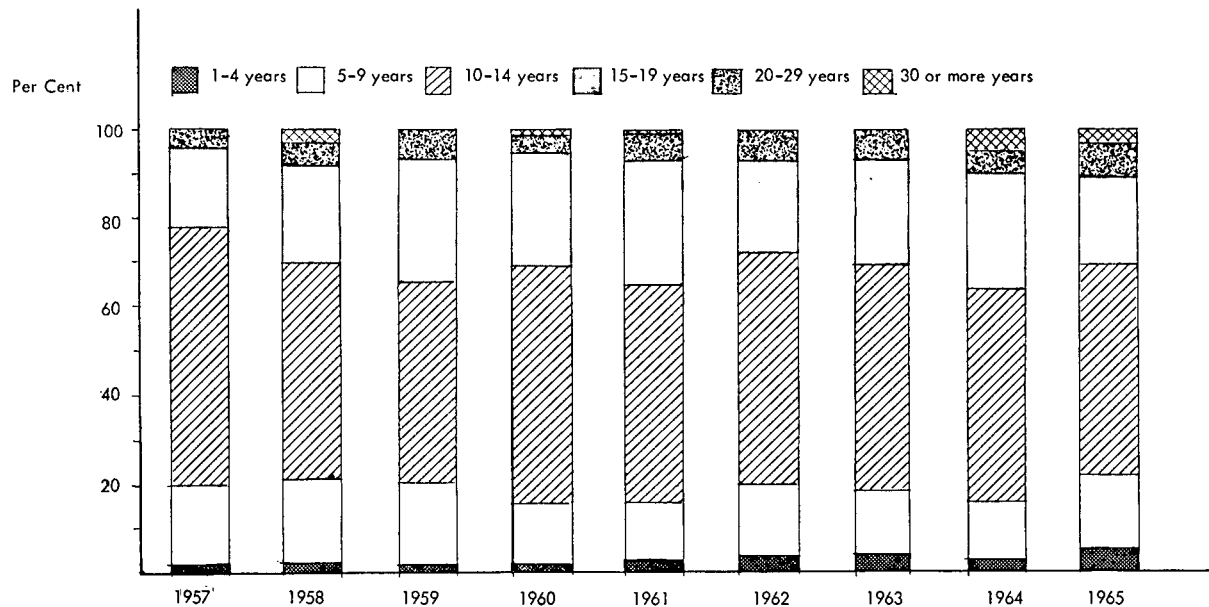
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<sup>8</sup> Includes such items as public housing, hospitals, poor relief, recreational facilities, and civic centers.

<sup>9</sup> Financing the purpose of which is to retire (at that time or at a later date) an existing issue or issues.

CHART VII

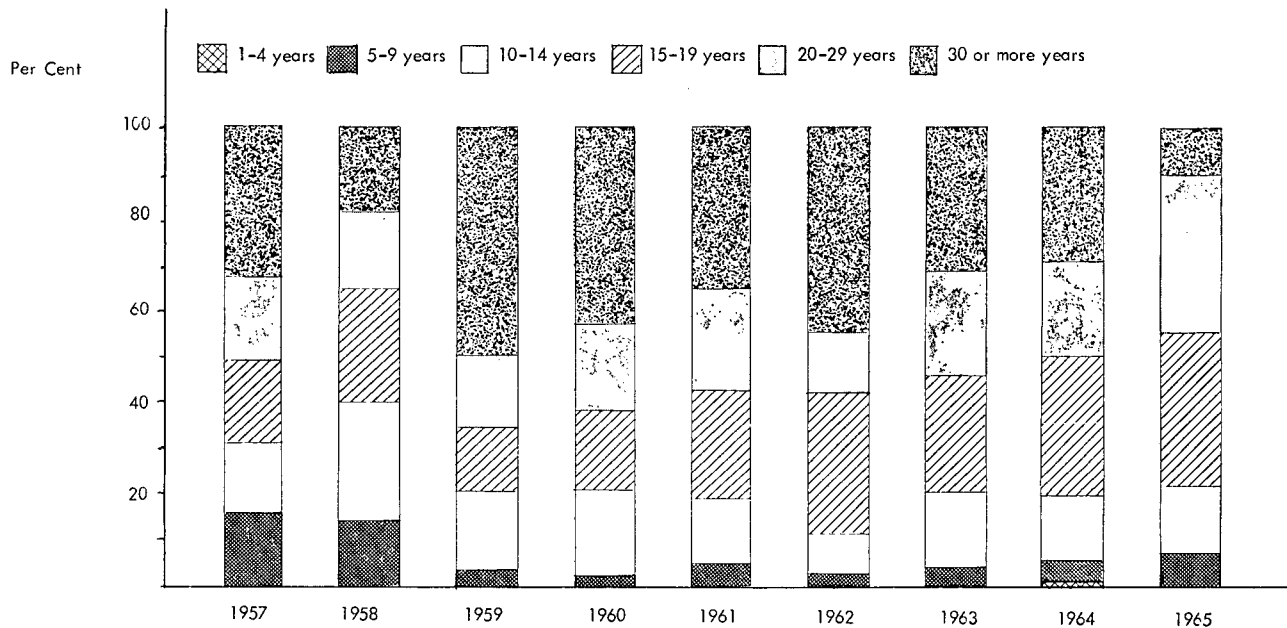
THE MATURITY DISTRIBUTION OF GENERAL OBLIGATION BONDS



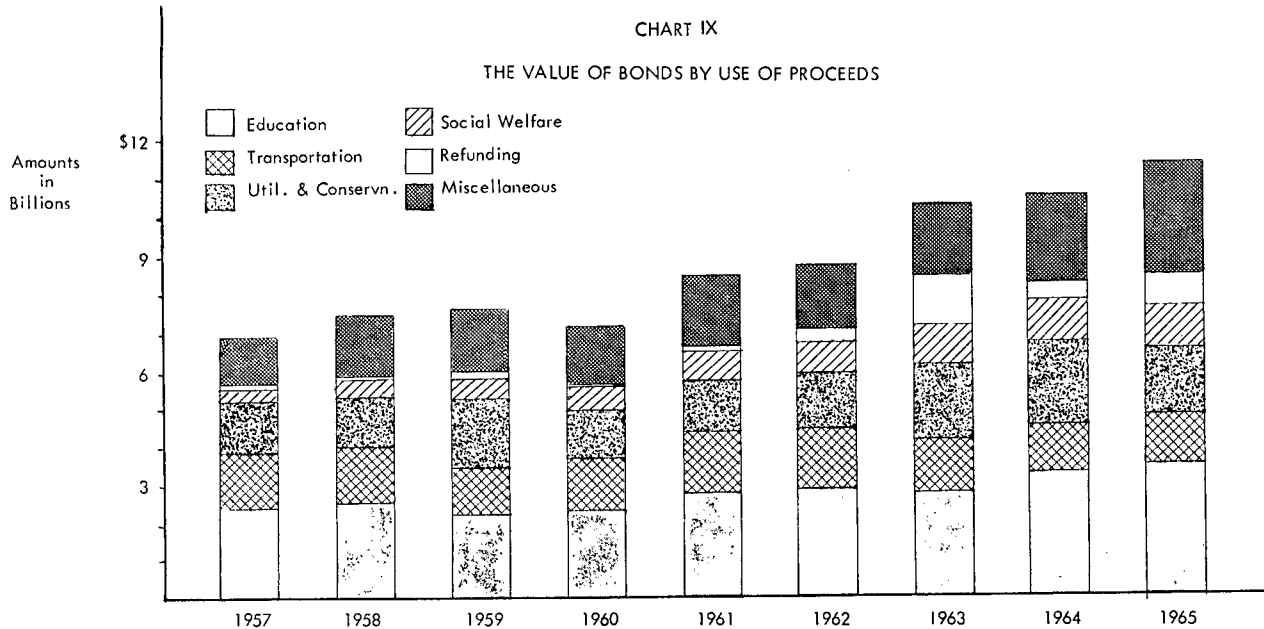
Source: Investment Bankers Association of America.

CHART VIII

THE MATURITY DISTRIBUTION OF REVENUE BONDS



Source: Investment Bankers Association of America.



Source: Investment Bankers Association of America.

Information concerning these categories for the period 1957 through 1965 is presented in charts IX and X. Chart IX shows the dollar value of new issues classified by use of proceeds. Readily apparent is a pronounced increase in refunding, reflecting the following two factors: First, late 1962 and the first half of 1963 constituted a period of low-interest rates, a favorable time to exchange existing debt for less costly debt. A second factor explaining the continued large volume of refunding is the legal necessity to refund certain issues before new debt may be issued. This requirement is frequently found in revenue bond issues, although it has been relaxed over the past several years as revenue bond financing techniques have evolved and investor acceptance has increased. The chart shows also the increase in issues to obtain funds for social welfare. The increase in miscellaneous issues reflects the trend toward consolidated financing and general purpose bond issues. Education and utilities and conservation also have increased whereas transportation has remained at the same level.

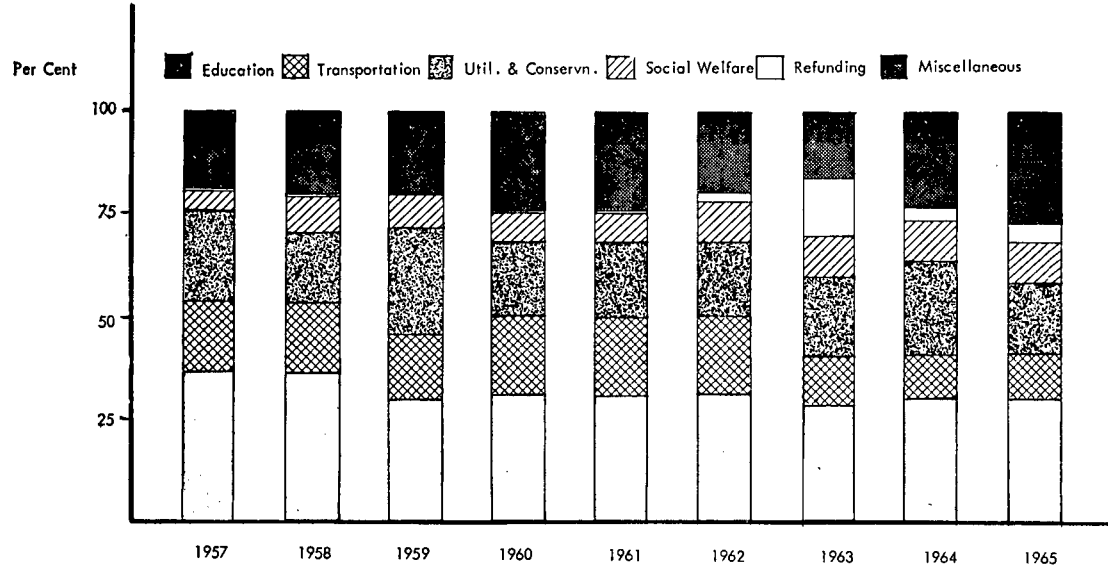
Chart X demonstrates the percentage of borrowing used for each purpose. Particularly noticeable is the large increase in the percentage of funds used for refinancing, and the decrease in percentage of funds used for transportation. The relative share used for education has slightly decreased, while the opposite is true for social welfare.

One of the more spectacular developments in this area has been the rise of industrial aid financing. In this form of financing, the borrowed funds are used to construct and sometimes equip a production facility, which the governmental unit then leases to a private firm. Although the volume is not large, relative to the other categories, the growth rate has been rapid. The present annual rate of this type of financing is about \$600 million, which compares with totals of \$7 million in 1957, \$72 million in 1961, and \$214 million in 1965. This topic is discussed in detail in another chapter. Additional statistical information is presented in table 3 of the appendix.

#### CHARACTERISTICS OF BORROWING AGENCIES

The past decade has been characterized by rising levels of new debt issues and outstanding debt. This section presents information describing the relationship of the issuer of new municipal bonds to the bond market. This is done by compiling market data in terms of the following characteristics of the issuer: (1) the type of public body (State government, city, school district, and special districts), (2) the geographical location, and (3) the population size.

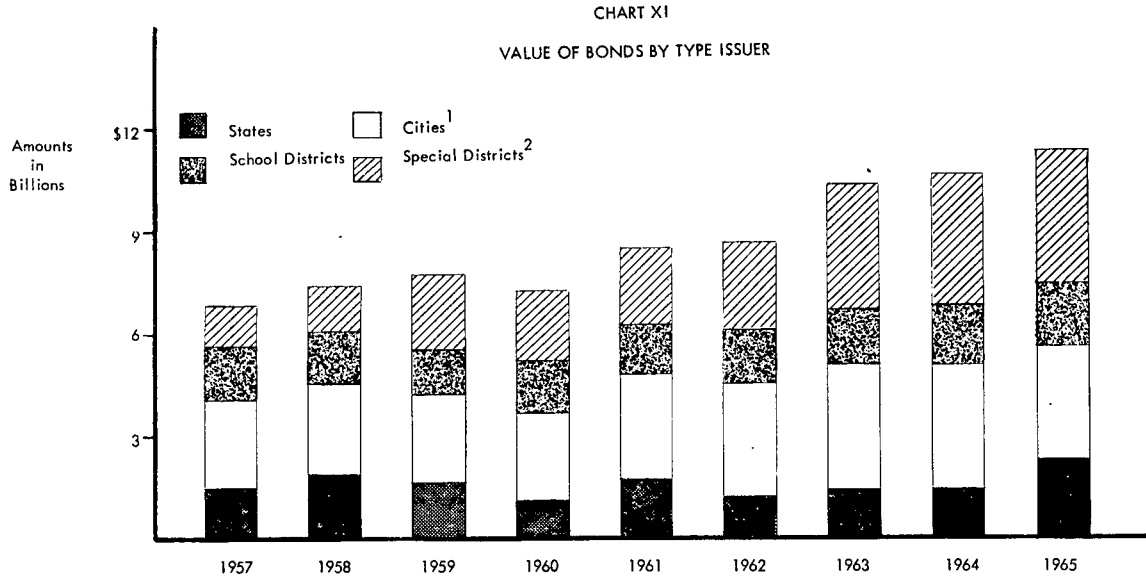
CHART X  
THE PERCENTAGE DISTRIBUTION<sup>1</sup> BY USE OF PROCEEDS



Source: Investment Bankers Association of America.

1. Based on value.





Source: Investment Bankers Association of America.

1. Includes counties and townships.

2. Includes Statutory Authorities.

1. *Type of public body.*—Chart XI presents a record of the dollar volume of new issues of municipal bonds by type issuer. As would be expected because of the rather constant level of borrowing for education, the dollar value of bonds issued by school districts has remained stable at given level. The amount issued by cities, counties, and townships has increased steadily at a moderate rate, while the amount issued by States has varied appreciably. The most pronounced trend is that for special districts and statutory authorities. The volume of borrowing by these forms of government has risen steadily, from \$1.3 billion in 1957 to nearly \$3.8 billion in 1965, reflecting the increasing use of these governmental bodies.

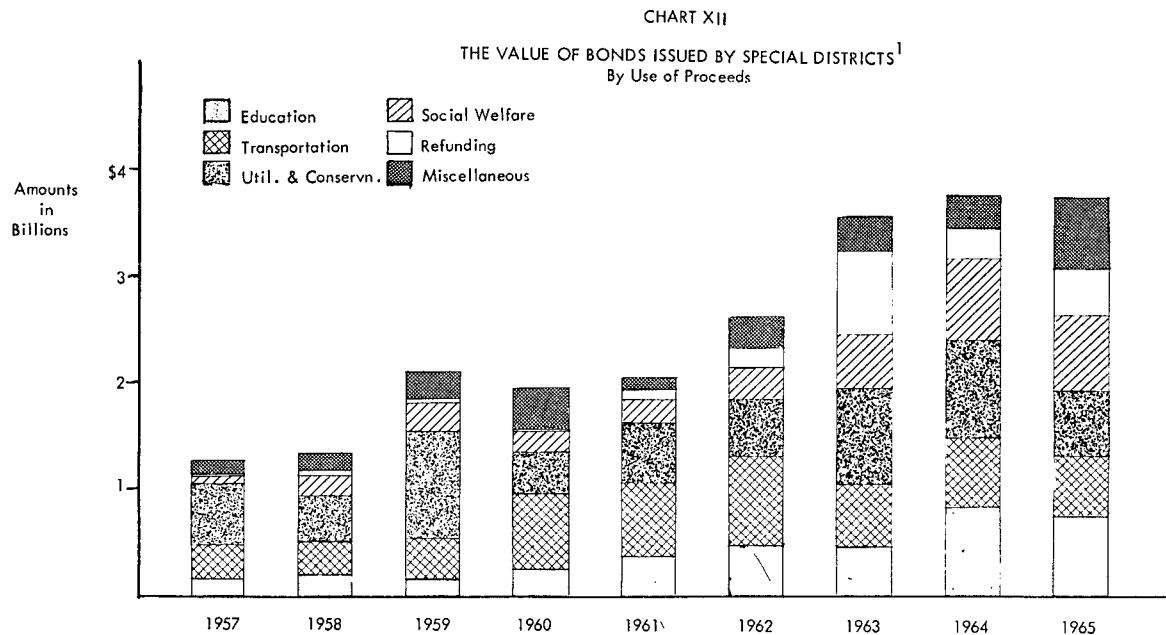
Charts XII and XIII provide additional information about the nature of this increase for special districts and statutory authorities. In Chart XII, the dollar value of bonds issued by these issuers is categorized by the use of proceeds. Social welfare, refunding, and miscellaneous account for most of the increase; each having expanded substantially from 1957 to 1965. Education also expanded substantially, due in part to leasing arrangements necessitated by debt limitations imposed on general obligation issues.

Chart XIII provides a breakdown on the basis of type of security sold by this form of issuer. Increases in revenue issues accounted for most of the dollar amount of additional financing, although on a percentage basis general obligation issues also increased substantially.

Additional statistical information is presented in tables 3 and 4 of the appendix.

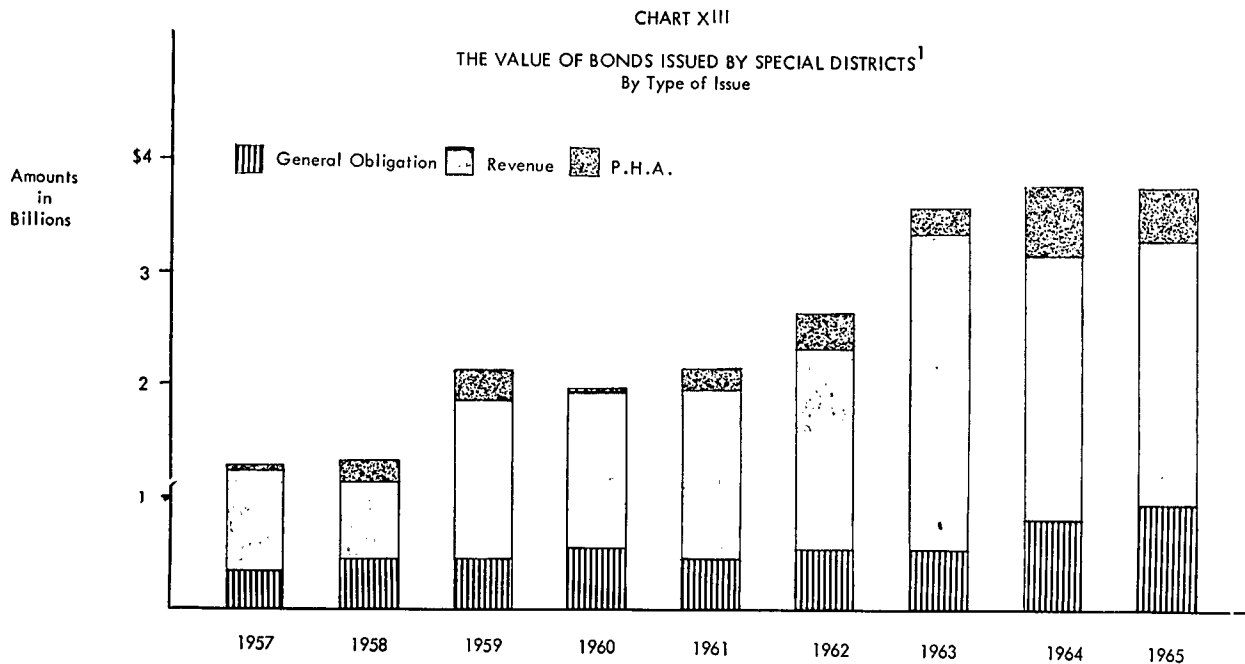
2. *Geographic location.*—With an overall increase in the volume of municipal bond issues between 1957 and 1965 of approximately 50 percent, it would be normal to expect an upward trend by individual States as well. Such is indeed the case.

New Issues of Municipal Bonds, 1957-1965



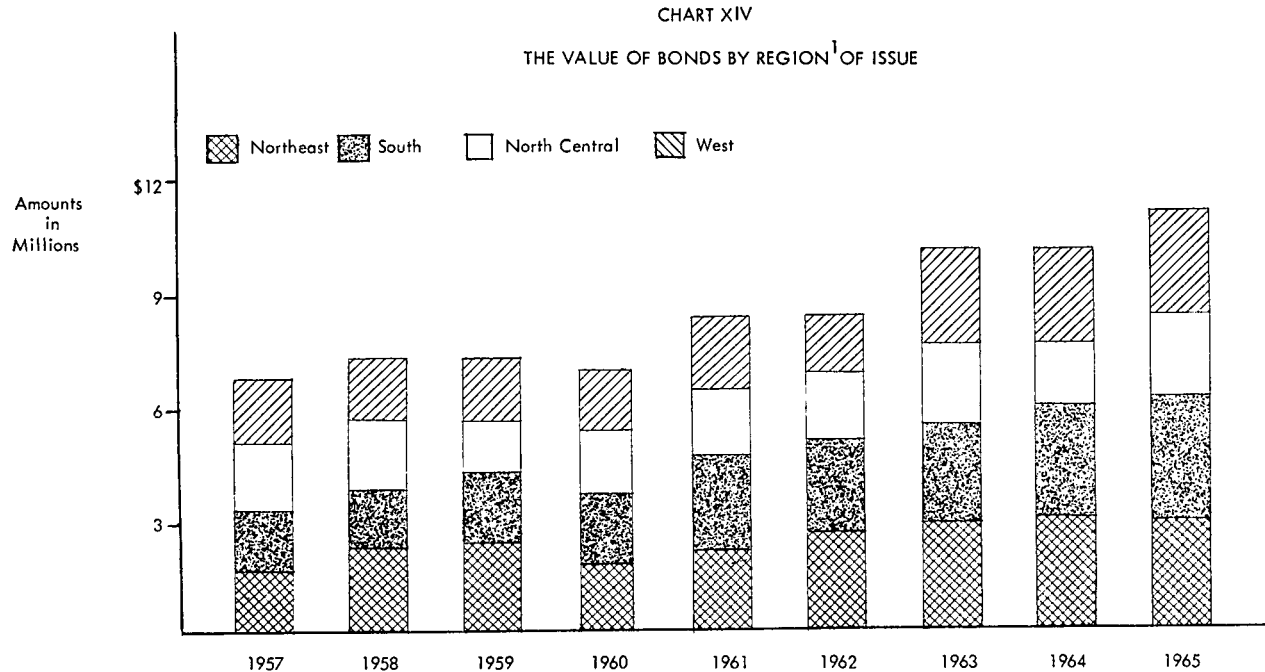
Source: Investment Bankers Association of America.

1. Includes Statutory Authorities.



Source: Investment Bankers Association of America.

1. Includes Statutory Authorities.



Source: Investment Bankers Association of America.

1. Bureau of the Census, census regions.

Using a general measure of change—the variability is so great in some cases that any measure of change must be general—somewhat less than half of the States did not establish a significant trend—plus or minus about 50 percent—in the level of new debt issues between 1957 and 1965. Four States—Alabama, Arkansas, New Mexico, and Utah—exhibit a definite trend of significantly increasing volume, and Connecticut has definitely reduced its volume of new issues. The remaining States, about half, have established a trend of increasing volume, but less than the four States listed above.

Chart XIV has been constructed to show the regional pattern of new issue growth.<sup>10</sup> All regions showed growth in the dollar volume of bonds issued therein, with the South increasing most rapidly. The Northeast increased nearly as rapidly, followed by the west and north-central regions.

Additional statistical information is presented in table 6 of the appendix.

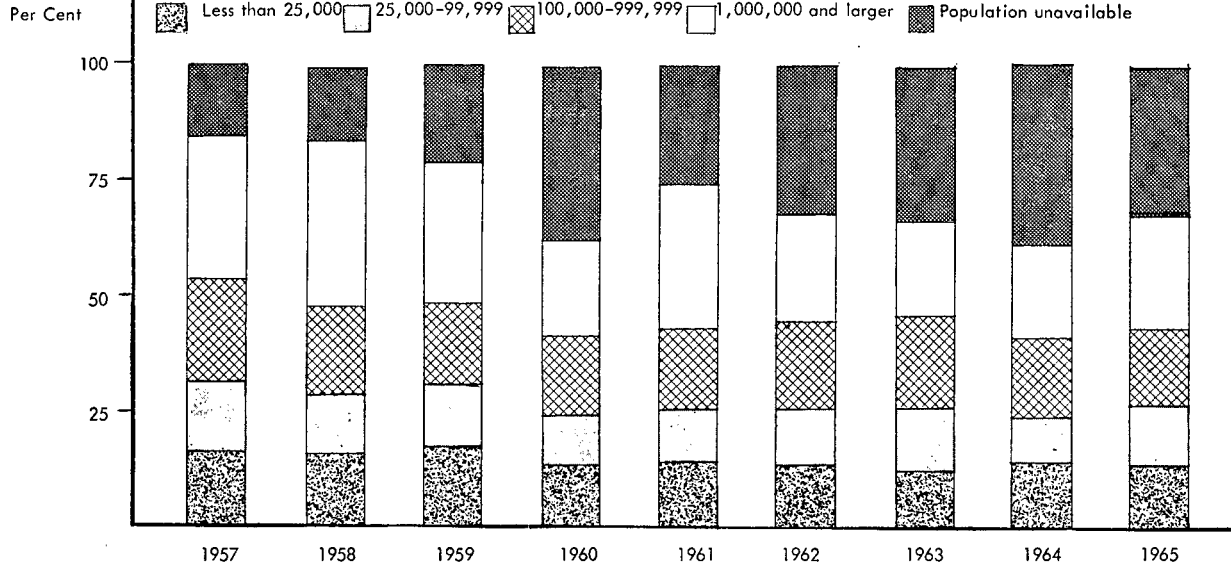
3. *Size of borrower.*—Even before examining any statistical data about the size of issuer (borrower) one would expect certain relationships to exist. It would be expected that small issuers would borrow in small amounts, that population trends and school consolidation would increase the size of issuing agencies, and that the increasing role of the State in aiding its subdivisions financially would result in a noticeable growth in the percentage of borrowing by the larger units. Not all of these relationships are corroborated by the data presented. Chart XV shows the percentage of the dollar volume of new issues by population category of issuer. Many issuers cannot be assigned a population (e.g., statutory authorities which perform a function not associated with a fixed population, such as a turnpike authority) and such information was not available for others. These have been combined into the classification “population unavailable.” The share of the market attributable to this category has noticeably increased, which is understandable in view of the large growth in importance of “special districts and statutory authorities.” The chart shows the offsetting decline distributed among all other groups, but particularly among the large issuers.

Chart XVI presents the same basic data with percentages calculated on the number of issues rather than value. The pronounced increase in the value of financing in the “unavailable” category is not carried through to the number of issues, denoting a sizable increase in the dollar value of individual issues. If the large increase in percentage of new issues by the smallest population group in 1958 and 1959 is ignored, the percentage distribution has remained very stable over the years.

<sup>10</sup> Using the Bureau of the Census definition of census regions.

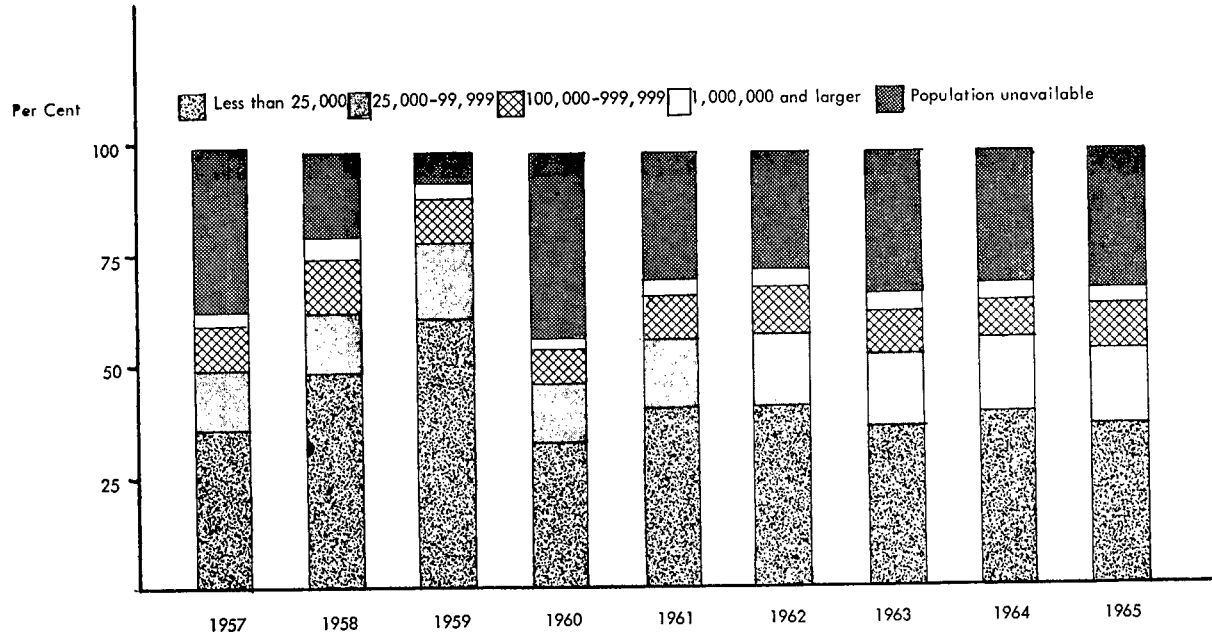
CHART XV

THE PERCENTAGE DISTRIBUTION OF THE DOLLAR VALUE OF BONDS  
By Population Size of Issuer



Source: Investment Bankers Association of America.

THE PERCENTAGE DISTRIBUTION OF THE NUMBER OF ISSUES  
By population Size of Issuer



Source: Investment Bankers Association of America.



A comparison of chart XV with chart XVI bears out the suggestion that small issuers borrow by selling bonds in relatively small issues. The other two assumptions about the increasing importance of the large issuer are not borne out unless the increased volume by those issuers for which no population was available represents the larger issuers—which it is in some cases. The evidence is not sufficient to make this judgment, however.

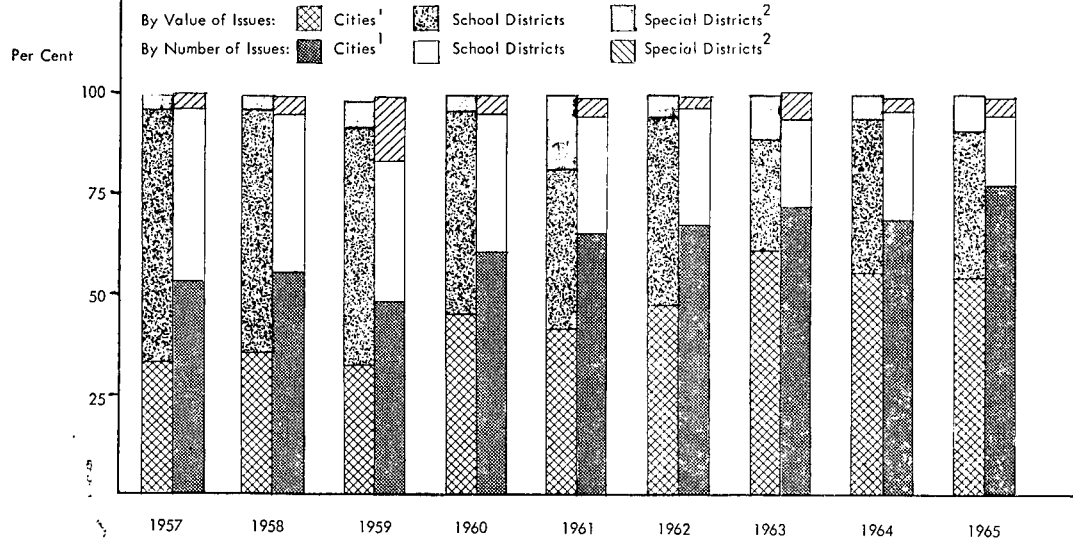
Charts XVII through XIX were constructed to present more detailed information about the issuer. Chart XVII presents data for issuers whose population is 10,000 or less (the smallest available division with the IBA statistics). The shift, within this population bracket, from school districts to cities is most pronounced and undoubtedly the result of school consolidations.

The most significant relationship for the group of issuers 10,000 to 1 million in size (chart XVIII) is the almost complete lack of change over the past 9 years. The only changes are a slight decrease in the share issued by special districts and an increase for cities.

Among the largest issuers, chart XIX, States dominate the picture. Somewhat surprisingly, the most noticeable change has been in the increased percentage of the number of issues by States, offset by a decrease by cities.

CHART XVII

THE PERCENTAGE DISTRIBUTION OF BONDS BY TYPE ISSUER  
Population less than 10,000



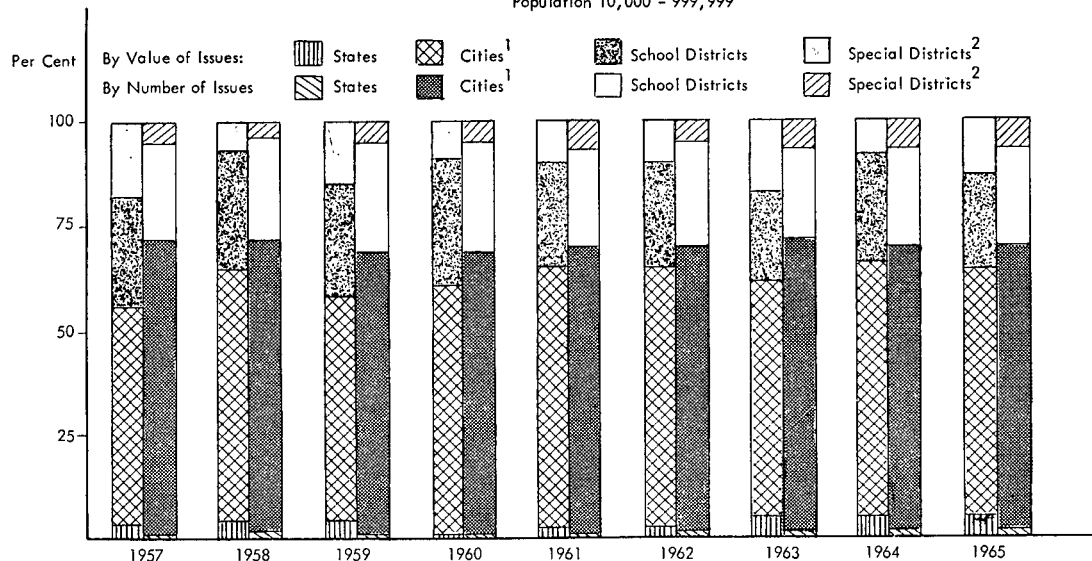
Source: Investment Bankers Association of America.

1. Includes counties and townships.

2. Includes Statutory Authorities.

New Issues of Municipal Bonds, 1957-1965

CHART XVIII

THE PERCENTAGE DISTRIBUTION OF BONDS BY TYPE ISSUER  
Population 10,000 - 999,999

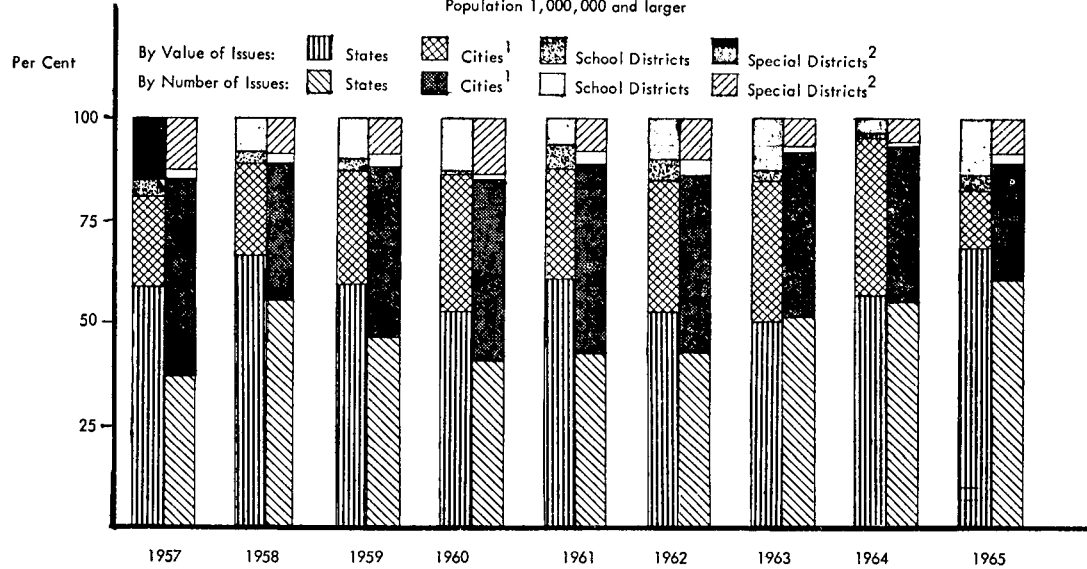
Source: Investment Bankers Association of America.

1. Includes counties and townships.

2. Includes Statutory Authorities.

CHART XIX

THE PERCENTAGE DISTRIBUTION OF BONDS BY TYPE ISSUER  
Population 1,000,000 and larger



Source: Investment Bankers Association of America.

1. Includes counties and townships.
2. Includes Statutory Authorities,

## APPENDIX

TABLE 1.—*New issues of municipal bonds by type offering and issue, 1957-65*

(Dollar amounts in millions)

Year and type issue	Competitive		Negotiated		Total	
	Amount	Number	Amount	Number	Amount	Number
1957:						
General obligation.....	\$4,525	4,983	\$210	869	\$4,808	6,104
Revenue.....	1,267	444	644	259	1,976	721
Public Housing Authority.....	66	10	-----	-----	66	10
Total.....	5,858	5,437	855	1,128	6,850	6,835
1958:						
General obligation.....	5,247	5,023	198	874	5,515	6,089
Revenue.....	1,207	534	434	328	1,693	893
Public Housing Authority.....	185	44	-----	-----	185	44
Total.....	6,639	5,601	633	1,202	7,394	7,026
1959:						
General obligation.....	4,592	4,866	197	652	4,817	5,682
Revenue.....	1,283	515	1,127	295	2,430	836
Public Housing Authority.....	335	76	-----	-----	335	76
Total.....	6,209	5,457	1,324	947	7,581	6,594
1960:						
General obligation.....	4,629	4,961	136	565	4,775	5,626
Revenue.....	1,242	550	838	315	2,095	881
Public Housing Authority.....	281	68	-----	-----	302	69
Total.....	6,153	5,579	973	880	7,712	6,576
1961:						
General obligation.....	5,601	5,132	126	487	5,739	5,705
Revenue.....	1,458	655	962	292	2,444	954
Public Housing Authority.....	315	116	-----	-----	315	116
Total.....	7,374	5,902	1,088	79	8,498	6,775
1962:						
General obligation.....	5,437	5,238	121	277	5,590	5,526
Revenue.....	1,912	821	774	242	2,711	1,069
Public Housing Authority.....	437	122	-----	-----	437	122
Total.....	7,786	6,181	895	519	8,737	6,717
1963:						
General obligations.....	5,527	4,609	264	663	5,831	5,333
Revenue.....	2,362	904	1,783	572	4,246	1,500
Public Housing Authority.....	254	64	-----	-----	254	64
Total.....	8,143	5,577	2,047	1,235	10,331	6,897
1964:						
General obligations.....	6,194	4,592	195	470	6,402	5,136
Revenue.....	2,181	789	1,377	468	3,608	1,274
Public Housing Authority.....	637	163	-----	-----	637	163
Total.....	9,012	5,544	1,571	938	10,646	6,573
1965:						
General obligation.....	6,989	4,438	167	360	7,266	4,915
Revenue.....	2,410	767	1,025	455	3,521	1,267
Public Housing Authority.....	478	129	-----	-----	478	129
Total.....	9,877	5,334	1,192	815	11,265	6,311

NOTE.—Subtotals may not add to totals due to rounding and inclusion in the total of small amounts not classifiable as competitive or negotiated.

Source: Investment Bankers Association of America.

T BLE 2.—New issues of municipal bonds by average maturity and type issue, 1957-65

[Dollars in millions]

Type issue	Average maturity														Total	
	1 through 4		5 through 9		10 through 14		15 through 19		20 through 29		30—		No record		Amount	Number
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number		
1957:																
General obligation.....	\$104	422	\$795	1,601	\$2,490	2,056	\$812	694	\$190	137	\$4	10	\$412	1,184	\$4,808	6,104
Revenue.....	2	9	247	64	235	159	255	132	300	112	519	29	389	216	1,976	721
Public Housing Au- thority.....		1											66	9	66	10
Total.....	106	432	1,043	1,665	2,725	2,215	1,098	826	489	249	522	39	868	1,409	6,850	6,835
1958:																
General obligation.....	134	446	962	1,639	2,506	1,969	1,140	638	265	127	145	15	363	1,255	5,515	6,080
Revenue.....	2	13	181	73	334	150	324	140	222	127	243	60	386	330	1,693	893
Public Housing Au- thority.....													185	44	185	44
Total.....	136	459	1,143	1,712	2,841	2,119	1,464	778	487	254	388	75	935	1,629	7,394	7,026
1959:																
General obligation.....	81	412	801	1,536	1,951	1,763	1,182	638	241	124	4	11	554	1,198	4,817	5,682
Revenue.....	8	13	66	53	345	136	280	127	322	107	978	81	430	319	2,430	836
Public Housing Au- thority.....													335	76	335	76
Total.....	90	425	868	1,589	2,296	1,899	1,462	765	564	231	982	92	1,320	1,593	7,581	6,594
1960:																
General obligation.....	91	373	598	1,464	2,171	1,892	1,073	602	158	126	55	8	630	1,161	4,775	5,626
Revenue.....	5	8	40	59	307	149	276	139	309	125	706	81	453	320	2,095	881
Public Housing Au- thority.....													302	69	302	69
Total.....	95	381	638	1,522	2,477	2,041	1,349	741	467	251	761	89	1,384	1,550	7,172	6,576

TABLE 2.—New issues of municipal bonds by average maturity and type issue, 1957-65—Continued

[Dollars in millions]

Type issue	Average maturity														Total	
	1 through 4		5 through 9		10 through 14		15 through 19		20 through 29		30—		No record			
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number
1961:																
General obligation .....	\$149	343	\$690	\$1,448	\$2,612	1,955	\$1,469	608	\$312	137	\$35	12	\$472	1,202	\$5,739	5,705
Revenue .....	8	12	90	55	255	144	432	126	399	131	646	64	613	422	2,444	954
Public Housing Authority .....	22	3			17	3	3	1	104	4			170	105	315	116
Total .....	179	358	780	1,503	2,884	2,102	1,903	735	815	272	681	76	1,255	1,729	8,498	6,775
1962:																
General obligation .....	165	270	649	988	2,037	1,451	852	440	282	76	1	1	1,604	2,300	5,590	5,526
Revenue .....	2	5	26	31	112	66	365	89	157	67	522	44	1,526	767	2,711	1,069
Public Housing Authority .....													437	122	437	122
Total .....	166	275	675	1,019	2,149	1,517	1,217	529	439	143	523	45	3,567	3,189	8,737	6,717
1963:																
General obligation .....	235	274	736	1,191	2,639	1,732	1,239	592	375	150	12	5	595	1,389	5,831	5,333
Revenue .....	11	14	99	68	401	182	657	195	621	174	727	72	1,730	795	4,246	1,500
Public Housing Authority .....													254	64	254	64
Total .....	246	288	835	1,259	3,040	1,914	1,896	787	996	324	739	77	2,579	2,248	10,331	6,897
1964:																
General obligation .....	191	196	755	1,040	2,547	1,715	1,372	600	296	123	298	7	943	1,455	6,402	5,136
Revenue .....	2	5	96	72	377	157	801	192	551	161	770	60	1,010	627	3,608	1,274
Public Housing Authority .....							81	20					556	143	637	163
Total .....	193	201	851	1,112	2,924	1,872	2,254	812	847	284	1,068	67	2,509	2,225	10,646	6,573
1965:																
General obligation .....	337	183	1,127	1,055	3,097	1,748	1,278	567	468	135	235	12	727	1,215	7,266	4,915
Revenue .....	10	9	160	68	366	154	811	202	858	196	219	37	1,096	601	3,521	1,267
Public Housing Authority .....							2	1	31	4			445	124	478	129
Total .....	347	192	1,285	1,123	3,463	1,902	2,091	77	1,357	335	454	49	2,268	1,940	11,265	6,311

NOTE.—Subtotals may not add to totals due to rounding.

Source: Investment Bankers Association of America.

TABLE 3.—New issues of municipal bonds by use of proceeds and type issuer, 1957-65

[Dollars in millions]

Type issuer	Use of proceeds												Total	
	Education		Transportation		Utilities and conservation		Social welfare		Miscellaneous		Refunding			
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number
1957:														
State.....	\$249	34	\$558	36	\$14	5	\$84	6	\$499	44	\$2	1	\$1,407	126
City, etc.....	482	468	355	661	950	1,335	153	258	590	946	34	78	2,565	3,746
School district.....	1,584	2,390	0	0	0	0	0	0	0	0	14	28	1,598	2,418
Special district.....	116	76	349	95	543	230	96	53	176	88	1	3	1,281	545
Total.....	2,432	2,968	1,263	792	1,508	1,570	333	317	1,265	1,078	51	110	6,850	6,835
1958:														
State.....	406	95	681	45	12	7	168	13	636	60	8	2	1,910	222
City, etc.....	509	408	396	696	875	1,363	165	287	684	934	43	125	2,673	3,813
School district.....	1,456	2,281	0	0	0	0	0	0	7	1	8	34	1,471	2,316
Special district.....	152	128	349	79	411	287	224	85	177	85	25	10	1,339	674
Total.....	2,523	2,912	1,428	821	1,299	1,657	557	385	1,503	1,080	84	171	7,394	7,026
1959:														
State.....	334	64	384	36	59	17	93	5	647	53	38	2	1,554	177
City, etc.....	395	358	440	632	858	1,257	231	279	603	978	33	71	2,560	3,575
School district.....	1,349	2,222	0	0	0	1	0	0	0	1	5	13	1,354	2,237
Special district.....	119	99	410	73	1,013	269	265	83	273	75	33	6	2,113	605
Total.....	2,196	2,743	1,234	741	1,931	1,544	589	367	1,522	1,107	109	92	7,581	6,594
1960:														
State.....	234	43	246	24	9	5	15	7	508	42	0	0	1,012	121
City, etc.....	340	336	437	598	819	1,249	407	270	663	912	24	76	2,690	3,441
School district.....	1,477	2,141	0	0	0	0	0	1	0	0	17	24	1,495	2,168
Special district.....	253	187	710	103	420	330	170	64	418	160	4	4	1,975	846
Total.....	2,304	2,707	1,394	725	1,247	1,584	593	342	1,589	1,114	45	104	7,172	6,576



TABLE 3.—New issues of municipal bonds by use of proceeds and type issuer, 1957-65—Continued

[Dollars in millions]

Type issuer	Use of proceeds												Total	
	Education		Transportation		Utilities and conservation		Social welfare		Miscellaneous		Refunding			
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number
1961:														
State.....	\$434	64	\$369	36	\$51	10	\$105	15	\$869	41	\$2	1	\$1,829	167
City, etc.....	485	434	509	669	1,033	1,336	290	291	745	941	24	69	3,085	3,740
School district.....	1,417	1,982	0	0	0	0	0	0	1	2	7	12	1,425	1,996
Special district.....	394	174	687	112	537	328	239	114	231	135	71	9	2,160	872
Total.....	2,720	2,654	1,565	817	1,621	1,674	634	420	1,846	1,119	103	91	8,498	6,775
1962:														
State.....	371	103	315	24	26	4	223	17	356	34	16	2	1,307	184
City, etc.....	460	405	449	595	989	1,193	247	241	987	934	109	113	3,242	3,481
School district.....	1,562	2,041	0	0	0	0	0	0	2	4	15	27	1,578	2,072
Special district.....	477	210	826	118	519	312	347	148	300	139	141	53	2,609	980
Total.....	2,870	2,759	1,591	737	1,534	1,509	817	406	1,644	1,111	280	195	8,737	6,717
1963:														
State.....	442	101	267	30	13	4	186	14	401	49	142	10	1,450	208
City, etc.....	513	420	466	526	1,121	1,371	242	260	1,032	917	353	234	3,727	3,728
School district.....	1,429	1,683	0	0	0	0	0	0	1	140	119	119	1,569	1,804
Special district.....	461	301	625	109	915	408	494	124	316	121	775	94	3,586	1,157
Total.....	2,844	2,505	1,358	665	2,048	1,783	922	399	1,749	1,087	1,409	457	10,331	6,897
1964:														
State.....	462	93	202	22	259	10	67	13	456	52	49	6	1,496	196
City, etc.....	383	307	277	455	1,139	1,231	192	234	1,474	869	208	154	3,674	3,250
School district.....	1,610	1,694	0	0	0	0	0	0	1	2	84	99	1,694	1,795
Special district.....	809	299	684	138	901	457	783	236	301	128	304	74	3,783	1,332
Total.....	3,265	2,393	1,163	615	2,299	1,698	1,043	483	2,231	1,051	646	333	10,646	6,573
1965:														
State.....	560	91	360	23	203	5	85	12	1,060	69	15	3	2,283	203
City, etc.....	458	365	410	412	984	1,054	223	253	1,030	916	219	164	3,371	3,186
School district.....	1,721	1,596	0	0	0	0	0	0	0	0	60	69	1,840	1,703
Special district.....	757	278	568	125	621	354	671	185	695	201	292	64	3,772	1,219
Total.....	3,497	2,330	1,338	560	1,809	1,413	979	450	2,785	1,186	585	300	11,265	6,311

NOTE.—Subtotals may not add to totals due to rounding.

Source: Investment Bankers Association of America.

TABLE 4.—*New issues of municipal bonds by type issue and issuer, 1957-65*

[Dollar amounts in millions]

Type issuer	Type issue						Total	
	General obligation		Revenue		Public Housing Authority		Amount	Number
	Amount	Number	Amount	Number	Amount	Number		
1957:								
State.....	\$993	89	\$413	37	0	0	\$1,407	126
City, etc.....	1,891	3,240	673	506	0	0	2,565	3,746
School districts.....	1,594	2,411	4	7	0	0	1,598	2,418
Special districts.....	329	364	885	171	\$66	10	1,281	545
Total.....	4,808	6,104	1,976	721	66	10	6,850	6,835
1958:								
State.....	1,524	148	386	74	0	0	1,910	222
City, etc.....	2,099	3,244	574	569	0	0	2,673	3,813
School districts.....	1,471	2,314	-----	-----	0	0	1,471	2,316
Special districts.....	421	382	733	248	185	44	1,339	674
Total.....	5,515	6,089	1,693	893	185	44	7,394	7,026
1959:								
State.....	1,229	123	325	54	0	0	1,554	177
City, etc.....	1,821	3,011	633	530	105	34	2,560	3,575
School district.....	1,345	2,221	9	16	0	0	1,354	2,237
Special district.....	421	327	1,462	236	229	42	2,113	605
Total.....	4,817	5,682	2,430	836	335	76	7,581	6,594
1960:								
State.....	857	93	156	28	0	0	1,012	121
City etc.....	1,836	2,870	573	503	281	68	2,690	3,441
School districts.....	1,491	2,160	3	6	0	0	1,495	2,166
Special district.....	591	503	1,364	344	20	1	1,975	848
Total.....	4,775	5,626	2,095	881	302	69	7,172	6,576
1961:								
State.....	1,510	113	256	52	63	2	1,829	167
City, etc.....	2,333	3,110	692	585	60	45	3,085	3,740
School district.....	1,404	1,987	21	9	0	0	1,425	1,996
Special district.....	493	495	1,475	308	192	69	2,160	872
Total.....	5,739	5,705	2,444	954	316	116	8,498	6,775
1962:								
State.....	985	90	267	92	55	2	1,307	184
City, etc.....	2,437	2,887	725	572	80	22	3,242	3,481
School district.....	1,578	2,070	-----	2	0	0	1,578	2,072
Special district.....	589	479	1,718	403	302	98	2,609	980
Total.....	5,590	5,526	2,711	1,069	437	122	8,737	6,717
1963:								
State.....	1,090	121	360	87	0	0	1,450	208
City, etc.....	2,618	2,921	1,109	807	0	0	3,727	3,728
School district.....	1,567	1,797	2	7	0	0	1,569	1,804
Special district.....	556	494	2,776	599	254	64	3,586	1,157
Total.....	5,831	5,333	4,246	1,500	254	64	10,331	6,897
1964:								
State.....	1,288	126	198	70	0	0	1,466	196
City, etc.....	2,602	2,602	1,072	648	0	0	3,674	3,250
School district.....	1,693	1,793	1	2	0	0	1,694	1,795
Special district.....	809	615	2,336	554	637	163	3,783	1,332
Total.....	6,402	5,136	3,608	1,274	637	163	10,646	6,573
1965:								
State.....	2,053	125	230	78	0	0	2,283	203
City, etc.....	2,406	2,578	964	608	0	0	3,371	3,186
School district.....	1,838	1,700	1	3	0	0	1,840	1,703
Special district.....	968	512	2,325	578	478	129	3,772	1,219
Total.....	7,266	4,915	3,521	1,267	478	129	11,265	6,311

NOTE.—Subtotals may not add to totals due to rounding.

Source: Investment Bankers Association of America.

TABLE 5.—New issues of municipal bonds by size and type issuer, 1957-65

[Dollars in millions]

Year and size of issuer	Type issuer								Total	
	States		Cities, etc.		School districts		Special districts and Public Authority			
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number
1957										
Less than 10,000.....	0	0	\$171	859	\$322	643	\$22	65	\$514	1,567
10,000 to 24,999.....	0	0	220	564	260	301	72	40	552	905
25,000 to 49,999.....	0	0	211	388	171	132	276	24	658	544
50,000 to 99,999.....	0	0	248	265	167	87	26	19	441	371
100,000 to 249,999.....	0	0	369	259	97	42	104	21	570	322
250,000 to 499,999.....	\$41	13	272	146	74	17	53	13	441	189
500,000 to 999,999.....	73	12	326	153	57	9	33	13	490	187
1,000,000 and larger.....	1,262	86	464	112	91	7	324	27	2,142	232
Population not recorded.....	30	15	284	1,000	359	1,180	370	323	1,042	2,518
Total.....	1,407	126	2,565	3,746	1,598	2,418	1,281	545	6,850	6,835
1958										
Less than 10,000.....	0	0	236	1,381	379	936	26	132	642	2,452
10,000 to 24,999.....	0	0	216	592	261	324	24	33	501	949
25,000 to 49,999.....	0	0	293	444	244	196	21	21	558	661
50,000 to 99,999.....	0	0	269	293	117	82	33	20	419	395
100,000 to 249,999.....	2	3	332	290	111	49	57	30	503	373
250,000 to 499,999.....	50	15	251	149	49	10	34	8	383	182
500,000 to 999,999.....	82	27	436	170	43	7	27	7	589	211
1,000,000 and larger.....	1,711	149	568	87	75	5	193	23	2,546	264
Population not recorded.....	65	28	72	407	192	707	924	400	1,255	1,542
Total.....	1,910	222	2,673	3,813	1,471	2,316	1,339	674	7,394	7,026
1959										
Less than 10,000.....	0	0	253	1,493	431	1,370	58	181	742	3,044
10,000 to 24,999.....	0	0	236	571	308	376	22	35	566	982
25,000 to 49,999.....	0	0	276	434	183	178	225	42	684	654
50,000 to 99,999.....	0	0	233	301	125	106	25	24	383	431
100,000 to 249,999.....	0	0	275	237	110	55	40	29	426	321
250,000 to 499,999.....	48	13	220	123	32	11	74	16	374	163
500,000 to 999,999.....	69	16	380	162	49	6	42	11	540	195
1,000,000 and larger.....	1,363	111	617	95	64	7	228	21	2,272	233
Population not recorded.....	73	37	69	159	53	128	1,399	246	1,595	570
Total.....	1,554	177	2,560	3,575	1,354	2,237	2,113	605	7,581	6,594



TABLE 5.—*New issues of municipal bonds by size and type issuer, 1957-65—Continued*

[Dollars in millions]

Year and size of issuer	Type issuer								Total	
	States		Cities, etc.		School districts		Special districts and Public Authority			
	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number
<b>1964</b>										
Less than 10,000.....	0	0	\$366	1,125	\$256	410	\$39	76	\$662	1,611
10,000 to 24,999.....	0	0	402	600	305	275	64	78	771	951
25,000 to 49,999.....	0	0	359	443	237	174	49	38	644	655
50,000 to 99,999.....	0	0	305	305	172	99	56	21	533	425
100,000 to 249,999.....	\$8	1	427	193	133	45	44	21	611	260
250,000 to 499,999.....	105	31	337	140	45	8	45	10	532	189
500,000 to 999,999.....	76	30	485	133	42	4	61	17	663	184
1,000,000 and larger.....	1,267	107	815	71	25	1	90	12	2,196	191
Population not recorded.....	40	27	178	240	478	779	3,336	1,059	4,013	2,105
Total.....	1,496	196	3,674	3,250	1,694	1,795	3,783	1,332	10,646	6,573
<b>1965</b>										
Less than 10,000.....	0	0	336	1,049	220	232	55	68	611	1,349
10,000 to 24,999.....	0	0	435	616	297	256	116	75	847	947
25,000 to 49,999.....	0	0	494	447	207	166	60	36	762	649
50,000 to 99,999.....	0	0	385	293	198	97	65	30	648	420
100,000 to 249,999.....	0	0	404	214	191	56	41	16	636	286
250,000 to 499,999.....	45	6	491	160	55	7	58	12	649	185
500,000 to 999,999.....	194	41	241	84	34	4	190	19	659	148
1,000,000 and larger.....	1,830	123	384	59	84	4	367	18	2,664	209
Population not recorded.....	215	28	200	264	554	881	2,821	945	3,790	2,118
Total.....	2,283	203	3,371	3,186	1,840	1,703	3,772	1,219	11,265	6,311

NOTE.—Subtotals may not add to totals due to rounding and miscellaneous issuers not given in subtotals.

Source: Investment Bankers Association of America.

TABLE 6.—The volume of new issues, by State of origin and type issuer, 1957-65  
[In millions of dollars]

State and type issuer	1957	1958	1959	1960	1961	1962	1963	1964	1965
Alabama.....	77	77	138	161	147	118	120	228	369
State.....		21	2	4		9	3	10	
Cities and counties.....	43	51	61	49	91	52	46	94	83
School districts.....	4		1	1			1	1	
Special districts, public authorities.....	31	5	74	108	55	57	69	122	285
Alaska.....	2	20	16	18	36	29	34	26	12
State.....		2			14	7	8	8	
Cities and counties.....	2	15	11	10	16	11	15	2	12
School districts.....		3	4	7	5	10	2	17	1
Special districts, public authorities.....				1	2	1	10		
Arizona.....	51	26	65	65	58	96	50	86	100
State.....				2		1	1	2	3
Cities and counties.....	26	10	30	17	28	58	32	23	41
School districts.....	20	16	15	27	28	21	11	22	26
Special districts, public authorities.....	5		20	19	2	18	6	39	34
Arkansas.....	15	11	19	15	21	18	51	101	49
State.....							1		
Cities and counties.....	14	11	14	10	6	11	29	76	19
School districts.....	1		4	4	11	5	9	9	11
Special districts, public authorities.....					4	2	12	16	19
California.....	888	1,081	953	1,081	1,317	877	1,103	1,349	1,642
State.....	300	400	250	393	591	207	200	644	535
Cities and counties.....	208	242	188	216	212	225	205	177	236
School districts.....	289	239	240	232	316	251	209	254	249
Special districts, public authorities.....	92	199	275	241	198	104	489	273	622
Canada.....									
State.....									
Cities and counties.....									
School districts.....									
Special districts, public authorities.....									
Colorado.....	67	73	41	36	47	70	204	151	137
State.....	16	5	6				28	6	1
Cities and counties.....	32	43	20	21	20	30	47	53	57
School districts.....	18	24	15	12	26	35	107	46	48
Special districts, public authorities.....				2	1	6	22	45	31
Connecticut.....	263	232	209	132	185	205	117	187	189
State.....	149	127	140	64	95	102	49	94	91
Cities and counties.....	77	96	62	56	81	95	61	81	94
School districts.....	37	5	1	7	1	2			
Special districts, public authorities.....		4	6	4	8	7	8	12	4
Delaware.....	41	56	42	32	23	74	21	170	59
State.....	32	38	29	16	11	38	12	49	3
Cities and counties.....	5	6	11	16	5	1	7	6	1
School districts.....	4	12	1		7	4	1	12	8
Special districts, public authorities.....						32	1	104	3
District of Columbia.....	1	185	110	35	3			14	8
State.....									
Cities and counties.....			6						
School districts.....									
Special districts, public authorities.....	1	185	104	35	3			14	8
Florida.....	267	167	159	240	320	248	297	499	364
State.....		20	19	18	8	10			
Cities and counties.....	132	101	74	119	94	122	193	171	169
School districts.....	54	12	21	14	34	13	23	57	48
Special districts, public authorities.....	80	33	45	89	184	104	81	271	147
Georgia.....	120	108	56	49	183	212	137	171	204
State.....					30				
Cities and counties.....	55	45	36	44	40	66	68	46	65
School districts.....	14	7	18	3	10	11	28	8	7
Special districts, public authorities.....	51	56	2	2	104	135	41	116	132

TABLE 6.—The volume of new issues, by State of origin and type issuer, 1957-65—Continued

[In millions of dollars]

State and type issuer	1957	1958	1959	1960	1961	1962	1963	1964	1965
Hawaii.....	48	36	65	23	32	29	76	55	58
State.....	34	21	53	7	10	10	66	30	32
Cities and counties.....	15	15	12	16	22	18	11	20	10
School districts.....									
Special districts, public authorities.....						1		5	16
Idaho.....	4	11	10	10	11	11	10	8	11
State.....			1				1		2
Cities and counties.....	1	7	1	2	5	2	2	2	4
School districts.....	2	4	3	8	6	8	7	4	4
Special districts, public authorities.....			4			1		3	1
Illinois.....	336	379	425	324	424	426	564	344	354
State.....	4	3	8	18	124	106	183	24	8
Cities and counties.....	206	183	281	182	143	130	70	83	90
School districts.....	98	78	77	75	61	75	109	82	110
Special districts, public authorities.....	28	115	59	49	96	115	202	155	146
Indiana.....	71	145	133	78	119	143	107	137	187
State.....		43	7	6	8	10	8		2
Cities and counties.....	33	50	40	31	52	71	33	25	40
School districts.....	15	8	17	14	15	8	8	2	5
Special districts, public authorities.....	24	45	69	26	43	54	58	110	140
Iowa.....	38	68	49	48	50	59	52	53	58
State.....		25							7
Cities and counties.....	16	22	20	23	32	27	14	17	29
School districts.....	21	21	28	25	19	28	21	15	21
Special districts, public authorities.....						4	17	21	1
Kansas.....	133	56	42	55	52	69	62	64	104
State.....		1	1	1	1	1			
Cities and counties.....	76	33	21	32	28	42	22	35	71
School districts.....	16	21	20	20	19	15	9	7	8
Special districts, public authorities.....	41	1		2	4	11	31	23	25
Kentucky.....	72	60	37	102	415	138	228	147	155
State.....	35	35	3	41	169	42	85	56	21
Cities and counties.....	29	25	34	50	79	55	122	65	87
School districts.....									
Special districts, public authorities.....	8			10	166	40	21	25	47
Louisiana.....	151	140	123	140	105	288	306	190	299
State.....	12	21	31	52			61		2
Cities and counties.....	47	35	35	48	49	94	116	59	104
School districts.....	50	66	40	21	14	30	22	41	44
Special districts, public authorities.....	43	18	17	19	42	165	107	90	149
Maine.....	5	16	21	17	24	19	28	20	17
State.....		6	10	7	10	3	18	12	5
Cities and counties.....	3	4	7	6	6	12	5	6	7
School districts.....	1		2	2	4	2	1	1	4
Special districts, public authorities.....	1	7	3	2	4	2	3	2	1
Maryland.....	120	175	137	124	189	247	263	223	228
State.....	24	41	12	37	37	34	64	37	69
Cities and counties.....	68	87	86	30	96	97	135	108	99
School districts.....									
Special districts, public authorities.....	28	47	39	57	55	116	63	80	61
Massachusetts.....	256	308	324	172	231	383	219	447	251
State.....	129	159	84	35	109	40	76	62	93
Cities and counties.....	108	122	97	104	102	134	117	206	111
School districts.....	5	17	11	10	11	2	3	8	17
Special districts, public authorities.....	13	11	133	23	9	207	24	171	31
Michigan.....	267	350	373	349	397	349	288	392	380
State.....	52	103	75	93	102	86	8	6	5
Cities and counties.....	80	103	135	95	147	124	147	180	133
School districts.....	135	123	141	140	103	121	111	150	185
Special districts, public authorities.....		21	22	21	45	19	22	56	57





TABLE 6.—The volume of new issues, by State of origin and type issuer, 1957-65—Continued

[In millions of dollars]

State and type issuer	1957	1958	1959	1960	1961	1962	1963	1964	1965
Ohio.....	472	396	306	305	312	281	318	345	416
State.....	220	155	65	17	70	7	3	2	90
Cities and counties.....	139	139	132	125	130	127	178	102	143
School districts.....	114	102	100	153	100	116	103	117	124
Special districts, public authorities.....	.....	.....	8	10	12	31	35	124	54
Oklahoma.....	48	69	42	98	204	82	182	89	150
State.....	.....	.....	.....	.....	36	2	6	1	15
Cities and counties.....	26	18	25	16	45	44	58	49	74
School districts.....	18	23	17	16	11	24	28	34	26
Special districts, public authorities.....	3	27	.....	66	113	13	90	6	34
Oregon.....	91	55	95	59	136	79	101	125	57
State.....	52	24	63	1	81	30	11	61	.....
Cities and counties.....	15	12	11	39	18	16	53	18	19
School districts.....	19	14	16	15	21	23	24	25	31
Special districts, public authorities.....	5	6	5	5	17	11	12	22	7
Pennsylvania.....	298	384	485	395	406	588	768	649	675
State.....	11	24	131	.....	.....	27	22	.....	27
Cities and counties.....	74	91	105	139	72	71	102	109	105
School districts.....	32	38	34	31	11	32	29	27	74
Special districts, public authorities.....	181	232	215	225	323	458	615	514	469
Puerto Rico.....	37	69	102	94	95	147	101	122	155
State.....	10	27	55	17	40	25	30	53	54
Cities and counties.....	5	1	14	35	7	38	27	17	11
School districts.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Special districts, public authorities.....	22	40	33	43	49	84	43	53	90
Rhode Island.....	43	44	15	10	29	40	59	49	84
State.....	27	19	.....	2	11	19	38	23	24
Cities and counties.....	16	24	13	7	14	20	21	22	30
School districts.....	.....	1	1	1	.....	.....	.....	.....	2
Special districts, public authorities.....	.....	1	.....	.....	4	.....	.....	4	28
South Carolina.....	44	63	44	27	36	32	46	23	63
State.....	21	46	17	5	6	5	5	.....	17
Cities and counties.....	14	11	15	10	15	12	21	13	30
School districts.....	2	1	9	5	7	5	18	5	8
Special districts, public authorities.....	6	4	3	8	8	9	3	5	8
South Dakota.....	10	6	8	5	7	3	7	13	12
State.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cities and counties.....	2	4	4	3	4	1	2	3	4
School districts.....	7	1	4	2	3	2	5	8	7
Special districts, public authorities.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Tennessee.....	59	92	91	106	125	156	301	157	149
State.....	10	15	15	15	16	14	25	18	25
Cities and counties.....	48	74	76	84	106	122	156	121	103
School districts.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Special districts, public authorities.....	1	3	.....	5	3	20	120	18	21
Texas.....	387	360	345	308	422	444	440	471	657
State.....	16	67	30	1	79	10	1	3	3
Cities and counties.....	192	160	179	158	197	217	201	244	227
School districts.....	132	103	101	102	97	136	169	141	208
Special districts, public authorities.....	47	30	36	47	49	81	70	82	218
Utah.....	8	26	16	19	21	48	21	43	102
State.....	.....	.....	.....	.....	.....	.....	2	5	79
Cities and counties.....	1	5	4	5	8	19	3	19	3
School districts.....	.....	10	12	9	7	27	15	18	18
Special districts, public authorities.....	7	10	1	5	7	2	.....	1	3

TABLE 6.—The volume of new issues, by State of origin and type issuer, 1957-65—Continued

[In millions of dollars]

State and type issuer	1957	1958	1959	1960	1961	1962	1963	1964	1965
Vermont.....	16	15	15	17	8	12	16	20	22
State.....	9	12	13	14	5	10	6	17	10
Cities and counties.....	4	1	1	1	2	1	7	4	4
School districts.....	3	2	1	3	1	1	3	2	7
Special districts, public authorities.....									
Virginia.....	71	53	67	308	119	128	114	110	166
State.....					1	7	2	2	34
Cities and counties.....	69	47	62	58	82	98	96	77	65
School districts.....	2		3					3	1
Special districts, public authorities.....		7	1	250	36	23	17	27	66
Virgin Islands.....				2		7			9
State.....									5
Cities and counties.....									
School districts.....									
Special districts, public authorities.....				2		7			4
Washington.....	481	104	320	211	111	203	723	540	269
State.....	85	13	38	47	3	64	37	23	56
Cities and counties.....	33	51	27	85	64	35	75	149	125
School districts.....	54	25	41	40	26	34	26	35	53
Special districts, public authorities.....	309	15	215	39	18	70	584	333	36
West Virginia.....	4	23	56	17	24	27	16	61	84
State.....		19	18	10	3	14	4	21	63
Cities and counties.....	4	4	35	1	12	7	10	14	9
School districts.....			3	1				5	
Special districts, public authorities.....				4	9	6	1	21	12
Wisconsin.....	128	100	92	113	182	164	133	160	222
State.....						15			
Cities and counties.....	93	74	78	91	122	83	90	103	124
School districts.....	31	17	14	422	24	56	42	41	22
Special districts, public authorities.....	4	8			36	10	1	16	77
Wyoming.....	7	8	17	13	21	4	16	10	16
State.....			9	3			6		
Cities and counties.....	3	1	2	1	11	2	5	5	2
School districts.....	3	7	6	8	9	2	5	4	2
Special districts, public authorities.....	1			1				2	12

NOTE.—Subtotals may not add to totals due to rounding.

Source: Investment Bankers Association of America.

TABLE 7.—New issues of municipal bonds, by region<sup>1</sup> of issue

Year	Region							
	Northeast		South		North-central		West	
	Amount <sup>2</sup>	Number	Amount <sup>2</sup>	Number	Amount <sup>2</sup>	Number	Amount <sup>2</sup>	Number
1957.....	\$1,749	1,511	\$1,584	1,692	\$1,789	2,438	\$1,691	1,184
1958.....	2,181	1,594	1,708	1,863	1,849	2,363	1,496	1,177
1959.....	2,493	1,347	1,636	1,832	1,717	2,262	1,633	1,144
1960.....	1,953	1,459	1,932	1,698	1,579	2,145	1,611	1,253
1961.....	2,229	1,418	2,510	1,821	1,804	2,323	1,860	1,203
1962.....	2,870	1,454	2,350	1,903	1,840	2,211	1,520	1,137
1963.....	3,022	1,529	2,694	2,153	2,035	2,024	2,480	1,176
1964.....	3,162	1,461	2,854	1,679	1,935	1,954	2,573	1,166
1965.....	3,053	1,380	3,271	1,991	2,216	1,789	2,559	1,137

<sup>1</sup> Bureau of the Census, census region.<sup>2</sup> Millions omitted.

Source: Investment Bankers Association of America.

## CHAPTER 6

### Patterns of General Obligation Bonds\*

#### INTRODUCTION

In the following discussion concerning the present availability of general obligation bond issues as a credit resource for financing State and local public facilities, consideration is given only to the type of bond issue which has traditionally been known in the municipal bond market as "general obligations," to wit: bonds to the payment of which is pledged the full faith and credit of the issuer and which are payable from and primarily secured by ad valorem taxes upon all of the taxable property within the boundaries of the issuer, subject to taxation by the issuer, without limitation of rate or amount. Not included are revenue bonds, assessment bonds, special excise tax bonds, or bonds for the payment of which the full faith and credit of the issuer is pledged, but for the payment of which the issuer has either no power or limited power to levy ad valorem taxes.

#### 1. HISTORICAL DEVELOPMENT

##### A. PRIOR TO WORLD WAR II

During this period practically all of the State and municipal long-term financing was through the medium of general obligation bonds. The next largest volume of municipal financing (prior to the financial crisis of 1929) was through bonds payable from assessments on property specially benefited from the improvements constructed from the proceeds of such bonds. In the early 1930's, about \$2 billion or approximately 9 percent, of all municipal bonds then outstanding, including the bonds of at least one State, went into default, a situation which, together with very high delinquencies in tax and assessment collections, resulted in a substantial reduction in public borrowing and increased interest costs to issuers. There was practically no market for assessment bonds, as the real estate development boom had burst, and this type of new issue became only a trickle mostly locally absorbed. This was a period when States and local agencies curtailed their borrowing only to provide ultraessential public facilities, and the so-called "frills," or luxury items, were abandoned.

##### B. DURING WORLD WAR II

At or shortly prior to the outbreak of World War II the Capital Issues Commission was created with regional committees established in various parts of the country to implement the rules set by the Com-

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\*By John B. Dawson, partner, Wood, King, Dawson & Logan, with minor editing by committee staff.

mission governing public financing. Without going into detail, the general purpose of the Commission was to limit borrowing by public agencies to those purposes closely associated to health and safety, except to provide services for rapidly growing populations in defense areas. The regional committees were very strict in examining and approving proposed bond issues for capital improvements, and the voluntary cooperation of the underwriters and dealers in municipal bonds was remarkable. As a result the amount of bonds of every type issued for new projects during this period was at a minimum, and the total amount of general obligation bonds outstanding had declined at the end of the war to approximately the same as existed in 1930, due in great part to the accelerated retirement of bonds outstanding at the beginning of the period. The drought in tax exempts caused prices of all types of bonds of public agencies to increase substantially, and many millions of dollars of outstanding debt were refunded at lower interest rates. Refunding bonds were not subject to Capital Issues Commission's approval.

#### C. POSTWAR PERIOD

As a result of the curtailment of construction of public facilities during the 1930's and to the end of World War II, a tremendous backlog of postponed requirements was built up. This backlog included every category of municipal requirements; schools predominantly, streets, highways, sewers, hospitals, airports, and public buildings for various public uses. Upon the lifting of the restrictions upon the creation of new debt, a great many local public agencies initiated plans to proceed with the construction of postponed facilities. The impact on the market for tax exempts was not felt immediately, as preliminary to the actual issuance of the bonds it was necessary to employ architects and engineers, prepare plans and specifications, select building sites, all preparatory to calling elections on the proposition of issuing bonds, publishing notices of elections and conducting and canvassing the returns thereof. It was not until 1946 that the volume of tax-exempt bonds brought to market showed a substantial increase, jumping from 1,876 new issues in 1945 aggregating \$818 million, to 3,319 new issues in 1946 aggregating \$1,203 million. There was no substantial increase in the volume of general obligation bonds during those 2 years, and the ratio of general obligation bonds issued to the total amount of tax-exempt financing in each year has declined as shown by the following table compiled from information published by the Bond Buyer of New York.

*New State and municipal bond issues*

[Dollars in millions]

Year	Number of issues	Aggregate amount	General obligation issues	Percent of total
1946	3,319	\$1,203.6	\$997.7	82.90
1947	3,803	2,353.8	1,968.1	83.61
1948	4,706	2,989.7	2,440.2	81.62
1949	5,107	2,995.4	2,312.5	77.20
1950	5,861	3,693.6	3,093.7	83.76
1951	5,281	3,278.2	2,548.1	77.73
1952	5,313	4,401.3	2,937.9	66.75
1953	5,795	5,557.9	3,990.6	71.80
1954	6,526	6,908.6	3,754.3	53.87
1955	6,660	5,976.5	4,244.1	71.01
1956	6,495	5,446.4	3,775.9	69.33
1957	6,888	6,958.2	4,933.2	70.90
1958	6,855	7,448.8	5,724.9	76.86
1959	6,711	7,681.1	5,159.7	67.17
1960	6,529	7,229.5	5,034.7	69.64
1961	6,400	8,359.5	5,761.5	68.92
1962	6,515	8,558.2	5,892.2	68.85
1963	6,577	10,106.7	6,069.2	60.05
1964	6,314	10,544.1	6,886.3	65.31
1965	6,059	11,084.2	7,445.0	67.76

## 2. FACTORS AFFECTING USE OF GENERAL OBLIGATION BONDS

There are many elements affecting the issuance of tax exempt securities which account for the declining percentage of general obligation bonds issued when compared to the total amount of tax-exempt bonds brought to market. These elements should probably be considered separately.

(a) *Demand and interest costs.*—So long as the demand for tax-exempt bonds and resulting spread in interest costs between general obligations and revenue or other public agency bonds is relatively narrow, the public bodies will naturally turn to financing which does not require a vote of the electorate or an increase in the levy of ad valorem taxes to pay such bonds. However, when the demand for tax exempts dries up, and interest costs increase, the trend is to issue more general obligation bonds percentage-wise as the spread between interest costs on general obligation and revenue bonds becomes wider. The latest figures available which substantiate this observation are reported in the Investment Bankers Association statistical bulletin for the first quarter of 1966 which shows that of the 1,341 new issues during that period, aggregating \$2,859 million, there were 988 general obligation bond issues totaling \$1,903 million, or approximately 74 percent of the total volume.

(b) *Authorities.*—Many public functions formerly exercised by States and local subdivisions which were supported by taxes and general obligation bonds are now being carried on by means of quasi-public agencies such as authorities, commissions and, lately, nonprofit corporations, existing pursuant to law, and authorized to issue bonds the interest on which is exempt from Federal income taxes. The bonds of such agencies are generally payable solely from the revenues of income producing facilities, but in a few instances some of the authorities and commissions are authorized to levy limited taxes, or portions of existing taxes or excise taxes have been allocated or dedicated to them for debt service. Another chapter of this study reports in more detail upon bonds of the character referred to in this paragraph.

(c) *Debt limitations.*—There are three methods of imposing limitations upon the power of States and local governmental units to incur general obligation indebtedness: constitutional, statutory, and home rule charters. As a footnote to this chapter there is appended a table of constitutional debt limits contained in the constitutions of all 50 States. The limitations therein referred to have, in almost all instances, been in effect for generations, and have been found difficult, if not impossible, to change, although in many instances, bonds of States have been authorized for specific purposes and for stated amounts by constitutional amendments adopted by the people at elections held for that purpose. Notable examples are State issues for veterans' bonuses, although many of these are not general obligations but are payable from dedicated excise taxes such as cigarette tax, beer tax, soft drink tax, etc. There is a definite reluctance on the part of State and local government officials to tamper with or enlarge long-standing constitutional limitations upon the creation of general obligation indebtedness. This is not the case, however, with statutory limitations upon local subdivisions which have been increased from time to time, as such limitations are merely authorization to local agencies to create debt up to the new limitations, and the burden of the actual increase in indebtedness is the responsibility of the local officials and electorate. Limitations in home rule charters are more difficult to change, but such limitations seem to be of little effect, as most such charters require a vote to issue any bonds, and it would seem that as long as a vote is required, no limitation is necessary, as the limitation could be raised or exceeded by the vote of the same electorate.

The traditional constitutional debt limit is expressed as a percentage of the assessed valuation of the taxable property within the boundaries of the issuer, and is so expressed in the subjoined table. Originally this method of limiting the creation of indebtedness was adopted as practically all of the revenues of the States and their subdivisions was derived from ad valorem taxes. This is not the case today with the advent of a wide variety of taxes such as the income tax, sales tax, gasoline tax, cigarette tax, beer and liquor taxes, and many other excise and occupational taxes. It can be argued with considerable force that debt limitations based upon ad valorem taxes are no longer the true measure of ability to pay. As a matter of fact, the Commonwealth of Puerto Rico and the State of Delaware have abandoned the traditional percentage of assessed value limitation and have adopted a limitation based upon a ratio of debt service to gross revenues experienced in prior years. This method has received general acceptance by investors, although many feel that there is danger in possible recessions over an extended period, and that the only true measure of security is the value of the real property behind the debt. Many investors require information with respect to the ratio of true value to assessed value, the latter being almost universally lower than true value. However, due to the necessity for additional revenues, the gap between the two valuations has been narrowing to a limited extent, which permits the issuance of additional bonds within debt limits based upon a percentage of assessed valuation. The debt limitations have not seriously impeded general obligation borrowing except in a very few instances where the per-

centage is so low (Indiana, for example) as to be unrealistic in this modern era. Local public agencies in many cases have circumvented such limitations by means of authorities, lease-purchase agreements, etc., which result in higher costs to the taxpayers.

The population explosion has changed the pattern of general obligation financing to a considerable extent. Educational facilities at all levels are of prime concern, and most of the indebtedness incurred by States and their agencies in recent years has been for that purpose. The issuance of dormitory revenue bonds has relieved the necessity for issuing State bonds for that purpose, but buildings for classrooms, laboratories, and hospitals for medical colleges still are financed by State bonds. There has also been a rise in borrowing for parks, playgrounds, and other recreational facilities. Overcrowding of streets has resulted in a rise in municipal debt for the construction, or widening of arterial streets. The Federal Interstate Highway System has not of itself increased the necessity of borrowing for highway purposes, but the narrow, outmoded State and county highways existing at the close of World War II required heavy financing immediately following that period to widen, modernize and correct the dangerous condition of those highways and to care for increased traffic.

The increasing use by cities and towns of revenue bond financing for water, electric, gas, parking, and sewer purposes has caused a decline in general obligation bond issues for those purposes. There is no uniformity in the decisions of the courts of the various States as to whether revenue bonds are exempt from constitutional debt limits. The so-called special fund theory has been adopted in full in the majority of the States and revenue bonds are not considered "debt" within the meaning of the constitutional limitations. Fifteen States originally rejected the theory in whole or in part, those that have rejected it in part permit the exclusion of bonds payable from the revenues of the facility constructed from the proceeds of the bonds, but do not permit the exclusion if revenues from the existing facilities which were being added to or extended are also pledged.

Constitutional limitations upon indebtedness do not take into consideration the debts of overlapping jurisdictions, with the exception of South Carolina, which has an overall debt limit of 15 percent of the assessed valuation of the property included in the overlapping territory, and Louisiana where parishwide and local school districts have an overall limit of 25 percent on overlapping territory. However, there are, in a few States, limitations on the maximum rate of taxes which may be levied on property which has the effect of limiting indebtedness payable from ad valorem taxes. Many sophisticated investors require information on overlapping debt before purchasing any bonds of a political subdivision.

*Constitutional limitations on long-term general obligation debt (expressed as percentage of assessed valuation of taxable property)*

	State <sup>1</sup>	County	Cities and towns	School district	Other
Alabama.....	\$300,000.....	3.50 percent; vote required.....	Under 6,000, 5 percent; for utilities, additional 3 percent; over 6,000, 7 percent; school, water and sewer bonds not included; vote required.....	None.....	None.....
Alaska.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....
Arizona.....	\$350,000.....	4 percent with vote of taxpayers up to 10 percent.....	4 percent; same to 10 percent; for utilities additional 15 percent.....	4 percent; with vote of taxpayers up to 10 percent.....	4 percent plus voted debt.....
Arkansas.....	Vote required.....	Prohibited.....	1st and 2d class cities may borrow; vote required.....	Prohibited.....	Prohibited.....
California.....	\$300,000 plus voted debt.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....
Colorado.....	\$100,000.....	\$3 to \$6 tax levy limit for debt.....	3 percent, also water bonds; vote required.....	Vote required.....	None.....
Connecticut.....	None.....	None.....	None.....	None.....	Do.....
Delaware.....	(?).....	do.....	do.....	do.....	Do.....
Florida.....	Prohibited.....	do.....	do.....	20 percent.....	Do.....
Georgia.....	\$500,000.....	7 percent; vote required.....	7 percent; vote required.....	7 percent; vote required.....	7 percent; vote required.....
Hawaii.....	15 percent.....	10 percent.....	None.....	None.....	None.....
Idaho.....	\$2,000,000 plus voted debt.....	None; vote required.....	None; vote required.....	None; vote required.....	None; vote required.....
Illinois.....	\$250,000 plus voted debt.....	5.....	5.....	5 (maintaining grades 1 through 12, 10 percent, proposed amendment).....	5.....
Indiana.....	Prohibited.....	2.....	2.....	2.....	2.....
Iowa.....	\$250,000 plus voted debt.....	5.....	5.....	5.....	5.....
Kansas.....	\$1,000,000 plus voted debt.....	None.....	None.....	None.....	None.....
Kentucky.....	\$500,000 plus voted debt.....	2 percent; vote required.....	1st and 2d class 10 percent; 3d class over 15,000, 10 percent; other 3d and 4th class, 5; 5th and 6th 3; vote required.....	.....	2 percent; vote required.....
Louisiana.....	Prohibited.....	10 percent; industrial aid bonds, 20 percent; vote required.....	10 percent; vote required.....	10 percent; parishwide districts, 25 percent; vote required.....	10 percent; vote required.....
Maine.....	\$2,000,000 plus voted debt.....	None.....	7.50 percent.....	None.....	None.....
Maryland.....	None.....	do.....	None.....	do.....	Do.....
Massachusetts.....	do.....	do.....	do.....	do.....	Do.....
Michigan.....	Vote required.....	10 percent; vote required.....	None; vote required.....	None; vote required.....	None; vote required.....
Minnesota.....	None.....	None.....	None.....	None.....	None.....
Mississippi.....	do.....	do.....	do.....	do.....	Do.....
Missouri.....	\$1,000,000 plus voted debt.....	10 percent; vote required.....	10 percent plus 10 percent for streets, sewers, electricity; vote required.....	10 percent; vote required.....	5 percent; vote required.....
Montana.....	\$100,000 plus voted debt.....	5 percent; vote required.....	5 percent plus sewer, water bonds, if voted.....	5 percent.....	5 percent.....



*Constitutional limitations on long-term general obligation debt (expressed as percentage of assessed valuation of taxable property)—Continued*

	State <sup>1</sup>	County	Cities and towns	School district	Other
Nebraska.....	\$100,000.....	None.....	None.....	None.....	None.....
Nevada.....	1 percent.....	do.....	do.....	do.....	Do.....
New Hampshire.....	None.....	do.....	do.....	do.....	Do.....
New Jersey.....	1 percent of appropriation for fiscal year plus voted debt.....	do.....	do.....	do.....	Do.....
New Mexico.....	\$200,000 plus voted debt; also State and county debt may not exceed 1 percent.....	4 percent plus water, sewer; vote required.....	4 percent plus water, sewer; vote required.....	6 percent; vote required.....	4 percent plus water, sewer; vote required.....
New York.....	Vote required.....	10 percent.....	Cities over 125,000, 9 percent; under 125,000 towns and villages, 7 percent.....	Cities under 125,000, 5 percent; higher if voted; no limit other school districts.....	10 percent New York City and Nassau.....
North Carolina.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....	Vote required; no limit.....
North Dakota.....	\$2,000,000 <sup>2</sup> .....	5 percent.....	5 percent; additional 3 percent more by vote, plus 4 percent for water, sewer.....	5 percent; 5 percent extra by vote <sup>4</sup> .....	5 percent.....
Ohio.....	\$750,000.....	None.....	None.....	None.....	None.....
Oklahoma.....	Vote required.....	5 percent; vote required.....	5 percent plus for utilities if voted.....	10 percent; vote required.....	5 percent; vote required.....
Oregon.....	\$50,000.....	None.....	None.....	None.....	None.....
Pennsylvania <sup>4</sup> .....	\$1,000,000.....	2 percent; additional 5 percent if voted, plus self-liquidating debt, plus additional 3 percent by $\frac{3}{8}$ vote.....	2 percent; additional 5 percent if voted, plus self-liquidating debt, plus additional 3 percent by $\frac{3}{8}$ vote.....	2 percent; additional 5 percent if voted.....	2 percent; additional 5 percent if voted.....
Rhode Island.....	\$50,000 plus voted debt.....	None.....	None.....	None.....	None.....
South Carolina.....	Vote required.....	8 percent; <sup>5</sup> vote required.....	8 percent; <sup>5</sup> plus utilities vote required.....	8 percent; <sup>5</sup> vote required.....	8 percent; vote required.....
South Dakota.....	\$100,000 plus 0.50 percent to develop resources.....	5 percent plus 10 percent for water and sewers; vote required.....	5 percent plus 10 percent for water and sewers; cities over 8,000, 8 percent for electricity; vote required.....	10 percent; vote required.....	5 percent plus 10 percent for water and sewers; vote required.....
Tennessee.....	None.....	None.....	None.....	None.....	None.....
Texas.....	\$200,000.....	None; vote required.....	None; vote required.....	None; vote required.....	None; vote required.....
Utah.....	1.50 percent.....	2 percent; vote required.....	4 percent 1st and 2d class cities; 4 percent 3d class; 8 percent for water, lights, sewers; vote required.....	Vote required; no limit.....	Vote required; no limit.....
Vermont.....	None.....	None.....	None.....	None.....	None.....
Virginia.....	1 percent; vote required.....	Vote required; no limit.....	18 percent plus self-liquidating water, sewer.....	Vote required; no limit.....	Vote required; no limit.....

Washington.....	\$400,000 plus voted debt.....	1.50 percent; additional 3.50 percent by vote.	1.50 percent; additional 3.50 percent by vote, plus 5 percent for utilities.	1.50 percent; additional 8.50 percent by vote.	1.50 percent additional 3.50 percent by vote.
West Virginia.....	Prohibited.....	5 percent; vote required.....	5 percent; vote required.....	5 percent; vote required.....	5 percent; vote required.
Wisconsin.....	\$100,000.....	5 percent.....	5 percent plus 10 percent for schools.	10 percent.....	5 percent.
Wyoming.....	1 percent; vote required.....	2 percent; vote required.....	4 percent plus 4 percent for for sewage; vote required.	10 percent; vote required.....	None; vote required.

<sup>1</sup> When the debt limit is expressed as a dollar amount, this amount is usually an authorization of debt to meet casual deficits. In addition, State constitutions almost universally authorize unlimited debt "to repel invasion or suppress insurrection."

<sup>2</sup> A proposed amendment relates the debt limit to the revenues of the State. Debt service on all debt must not exceed a certain percentage of the State's revenues. The percentage declines from 30 percent of gross revenues in 1963 to 20 percent after 1971.

<sup>3</sup> Proposed amendments would authorize State debt equal to 5 percent of the taxable value of the property within the State and would raise the debt limit of subdivisions to

7 percent. An incorporated city would be allowed to incur an additional 4 percent debt if voted and school districts an additional 6 percent. Any city could also incur debt up to 5 percent of taxable value for water and sewer purposes.

<sup>4</sup> Proposed amendment authorizes State debt if authorized by popular vote. Another proposed amendment raises the subdivision debt limit to 15 percent. After debt equal to 5 percent has been incurred, additional debt must be voted.

<sup>5</sup> If 2 or more subdivisions cover same territory, total debt 15 percent.

## CHAPTER 7

### Patterns of Revenue Bond Financing\*

#### 1. THE GROWING IMPORTANCE OF REVENUE BOND FINANCING, 1946-65

Prior to World War II, revenue bond financing by municipal and other public instrumentalities enjoyed only a limited acceptance. While municipal public utility revenue bonds had been known since the turn of the century, this type of public financing of revenue projects in the prewar years was not extensive, particularly through the medium of independent instrumentalities such as public authorities. Among such projects in 1946 were the Hudson and East River crossings of the Port of New York Authority and the Triborough Bridge Authority and the toll road constructed by the Pennsylvania Turnpike Authority.

In the immediate years before the war, public authority revenue financing received an important impetus from decisions of the Federal courts affirming the status of the Port of New York and Triborough Authorities as political subdivisions entitled to exemption from Federal income taxation of interest on their bonds. *Commissioner of Internal Revenue v. Shamberger's Estate* (1944), 144 F 2d 998, Cert. denied, 323 U.S. 792; *Commissioner of Internal Revenue v. White's Estate et al.* (1944), 144 F 2d 1019; Cert. denied, 323 U.S. 792. With the termination of the war in 1945, the demand for public improvements, long subordinated to military requirements, became vocal. The elimination of price controls and the need for higher taxes to finance ordinary municipal operations led State and municipal officials to seek new means for raising capital for needed public improvements without a corresponding rise in the tax level. They turned to revenue bond financing, which offered a welcome combination of primary expense to the user and primary risk on the investor without a corresponding drain on the general funds or (in most cases), a charge against the debt limit. With an increasing awareness on the part of the courts of the expanding nature of public purpose, the acceptance by State legislatures of revenue bond financing of self-liquidating projects was swift.

In 1946, new issues of revenue bonds by municipal and public agencies accounted for \$205,860,000, or 17 percent of the total municipal bonds issued. In 1947 this ratio fell to slightly more than 16 percent. In 1954, the peak year of toll road financing, revenue bonds accounted for \$3,214,381,100, or 46 percent, of total municipal bonds issued; 1963 saw the largest annual volume of revenue bonds, amounting to \$4,037,470,000, or nearly 40 percent of the total municipal

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\* Prepared by Frank E. Curley, partner—Hawkins, Delafield & Wood, New York, N.Y., with minor editing by committee staff.

bonds issued. This peak figure was occasioned in part by the large number of refundings which were authorized by issuers in order to take advantage of improved market conditions. In 1965, the volume of new issues of revenue bonds amounted to nearly 33 percent of the total of municipal bonds.

The following is a statement of municipal general obligation and revenue bonds sold during the years 1946-65:

Year	General obligations	Revenue bonds	Total	Percent revenue
1946.....	\$997,697,000	\$205,860,000	\$1,203,557,000	17.1
1947.....	1,963,081,000	385,690,000	2,353,771,000	16.4
1948.....	2,440,230,000	549,501,000	2,989,731,000	18.4
1949.....	2,312,471,799	682,953,250	2,995,425,049	22.8
1950.....	3,093,680,965	599,926,200	3,693,607,165	16.2
1951.....	2,548,057,853	730,095,200	3,278,153,053	22.3
1952.....	2,937,866,967	1,463,450,500	4,401,317,467	33.3
1953.....	3,990,639,799	1,567,256,570	5,557,897,369	28.2
1954.....	3,754,260,796	3,214,381,100	6,968,641,896	46.1
1955.....	4,244,089,370	1,732,414,450	5,976,503,820	29.0
1956.....	3,775,931,126	1,670,488,445	5,446,419,571	30.7
1957.....	4,933,240,520	2,024,911,625	6,958,152,145	29.1
1958.....	5,628,086,000	1,772,281,000	7,400,367,000	23.9
1959.....	5,159,656,123	2,521,397,500	7,681,053,623	32.8
1960.....	5,034,679,948	2,194,820,411	7,229,500,359	30.4
1961.....	5,761,504,589	2,598,007,545	8,359,512,134	31.1
1962.....	5,892,188,262	2,666,012,400	8,558,200,662	31.2
1963.....	6,069,195,364	4,037,470,000	10,106,665,364	39.9
1964.....	6,879,923,836	3,650,752,608	10,530,676,444	34.7
1965.....	7,444,968,995	3,639,219,720	11,084,188,715	32.8

## 2. SIGNIFICANT DEVELOPMENTS IN REVENUE BOND FINANCING, 1946-65

Probably the single most important development in revenue bond financing in the past two decades has been the broadened concept of public purpose—the object for which such bonds may lawfully be issued by a municipal or public corporation. Prior to 1946 certain municipal utility services, such as electricity and water, were recognized in a number of States as legitimate purposes for municipal revenue bond financing. Toll roads and bridges, though not yet widely financed by this means, were generally accepted. With the increasing demand following the war for public services and improvements without a corresponding increase in the tax burden, legislatures have authorized and courts have approved as public purposes a variety of facilities and undertakings scarcely contemplated in prewar years. Airports throughout the country have been constructed or expanded through the issuance of revenue bonds secured by long-term leases with participating airlines. Public parks and recreation areas and facilities have been successfully financed with revenue bonds, as have stadiums and public sports facilities. Huge power projects have been erected on the Nation's major rivers as a result of revenue bond financings, in many cases by public authorities or corporations. Rapid transit facilities, public markets, college dormitories, port facilities, a world trade center in New York City, and various other public improvements are being financed through revenue bonds.

Industrial development by States and municipalities, commenced 30 years ago in Mississippi, has been increasingly accepted in recent years by numerous State courts as a public purpose for the issuance of revenue bonds. The vast majority of the States have enacted legislation authorizing State or local governments to promote and develop new

industry in order to revitalize areas suffering from unemployment and economic recession. With limited exceptions, the courts have held that the economic objectives of such development justify the issuance of revenue bonds by municipal corporations. In a typical case, the proceeds of these bonds are used by the municipality to acquire and construct an industrial plant which is leased to a company on a long-term basis. The rentals are sufficient to pay the debt service on the bonds and are unconditionally guaranteed by the company. The operating costs are usually assumed by the company. In most cases the credit of the municipality is not involved since the bonds are secured solely by the revenues derived from the leasing of the plant.

Another development in revenue bond financing during the past two decades has been in the nature of the issuer. Prior to World War II, a large amount of revenue bond financing was by municipalities, particularly with respect to electric, water, and other utility services. Public authorities and special districts were active—Port of New York, Triborough, Pennsylvania Turnpike, Consumers Public Power District, among others—but they had not attained the importance which they acquired during the 1950's. In that decade most of the toll road authorities were created and issued their bonds. Power authorities and districts, such as Power Authority of the State of New York, became active and financed their great revenue projects. Several regional compact agencies with revenue bond-issuing powers were created during this period and issued bonds. In addition, the period saw the creation of nonprofit corporations as governmental subdivisions for the purpose of issuing revenue bonds and constructing public improvements.

The year 1954 witnessed the second largest annual volume of revenue bond issues, in large part due to the toll road financings. Public authorities in New York, New Jersey, and Illinois financed turnpikes through giant revenue bond issues. These and others proved financially successful. The successful financings of this period far outweighed the few disappointments. These latter included toll roads in West Virginia and Illinois, bridges on the Missouri River, and a few others.

A development in revenue bond financing during the period 1946-66 was the increased use of advance refunding. Refunding of revenue bonds is, of course, not new. Bond resolutions and trust indentures ordinarily provide for the issuance of bonds to refund outstanding revenue bonds when subject to redemption. During the past 5 years, issuers were anxious to replace outstanding high-interest bonds with more moderately priced obligations. In addition, some issuers felt the need to modify or eliminate restrictive conditions in outstanding bond resolutions, particularly with respect to the issuance of additional bonds. In many cases, the bonds to be refunded were not callable for several years. Accordingly, advance refundings were developed, whereby the issuer sold refunding bonds and placed the proceeds in escrow pending the redemption of the outstanding bonds on the first call date. Where the resolution securing the outstanding bonds contained adequate defeasance provisions, the placing of sufficient funds in escrow to retire the outstanding bonds on the redemption date had the effect of discharging the outstanding bond resolution or indenture. Where such provisions were absent, interest on the refunding bonds was paid from investment income until the out-

standing bonds could be redeemed and the old resolution discharged. This method of advance refunding, which could be justified either because it offered savings in overall interest cost to the issuer or because it aided in removing onerous bond restrictions which prevented additional financing of public improvements, reached its peak in 1963 and accounts in part for the record volume of revenue bond issues in that year.

A development which has affected revenue bond financing is the controversy as to whether national banks may lawfully underwrite certain revenue bonds as general obligations under the Glass-Steagall Banking Act of 1933. The Comptroller of the Currency has ruled that revenue bonds issued by certain public authorities—e.g., the Port of New York Authority—are general obligations within the meaning of the Federal law, even though not supported by a pledge of tax funds, and are therefore eligible for underwriting by national banks. The question is presently before the courts.

### 3. SIGNIFICANT CHANGES IN PREVAILING ATTITUDES REGARDING CERTAIN REVENUE BOND SECURITY REQUIREMENTS

There have been important changes since 1946 in revenue bond security requirements contained in bond resolutions, trust indentures, and similar instruments securing the issuance of revenue bonds. These changes reflect an increased market for revenue bonds, particularly among institutional investors and fiduciaries, and this expanding market has resulted in a greater demand for reasonable assurance against falling off of revenues which might lead to a default on the bonds. Also, as they became more experienced with revenue bonds as a vehicle for financing public improvements, responsible issuers, bond counsel, and underwriters, have sought to strengthen and improve upon the instruments securing the bonds in order to afford greater protection both to the public and the investor in the application of many hundreds of millions of dollars of bond proceeds and revenues.

Debt service coverage requirements are stricter in 1966 than they were in 1946. In many resolutions and trust agreements in the 1946 period, it was not uncommon to require an issuer to maintain tolls or other revenues sufficient only to meet operating expenses and debt service as it became due. Today it is generally customary to require that tolls shall be maintained at a rate sufficient to provide revenues equal to operating expenses and debt service plus a margin of safety, depending upon the nature of the issuer, the project, and the certainty of the flow of revenues. A hydroelectric power project financed by revenue bonds secured by long-term power contracts with responsible purchasers may not need a margin greater than 10 or 20 percent. Water and sewer revenue bond issues, with their assured consumer demand, do not ordinarily require large coverage margins. However, a toll road or bridge, dependent upon motorists' needs and subject to competition with federally financed free roads of comparable standards, may require a margin of 25, 30, or 50 percent of net revenues over debt service.

Related to the debt service coverage requirement is the requirement for debt service reserves. Provision for this reserve is customarily contained in the flow of funds established by the bond resolution and often follows immediately upon the allocation of revenues for current

interest and principal payments. The amount required to be deposited in the bond reserve is greater today than it was in 1946. Having experienced isolated revenue bond defaults in recent years resulting from a failure of estimated revenues, investors now frequently demand a reserve large enough to meet both interest and principal payments for at least a year beyond a point of temporary cessation of revenues. Often this reserve requirement is tied to the maximum annual interest and principal requirement during the term of the bonds.

Reserves for repairs and replacements have become more important in bond instruments during the past 20 years. In the earlier years of revenue bond financing, there was often no distinction between the payment of revenues for ordinary operating expenses and extraordinary maintenance expenses of a type that did not recur annually. This was often because the earlier revenue bonds were secured by a pledge of gross revenues, which meant that debt service was paid ahead of operating expenses, and the distinction between ordinary and extraordinary maintenance expenses was a matter of little concern to the investor. However, with the trend from a pledge of gross revenues to a pledge of net revenues, the difference took on an obvious significance. The investor was not prepared for extraordinary repair expenditures, such as the costly resurfacing of a toll road, to take precedence over the payment of his interest and principal. Hence, the reserve for repairs and replacements was created, often following the bond reserve in the flow of funds, and subject to restrictions and conditions designed to prevent extravagance in the application of the reserve. The amount of the reserve is frequently based upon the issuer's annual budget requirements.

Earnings tests governing the issuance of additional revenue bonds which are *pari passu* with outstanding bonds are stricter today, both as to the earnings base and the required ratio or coverage of net earnings over debt service. With the exception of additional bonds required solely to complete the project, an earnings test is today required for the issuance of additional parity bonds under the same bond resolution in order to minimize the dilution of the revenues available to service the outstanding bonds. In the earlier years of revenue bond financing, it was often believed sufficient if the earnings base of the test was limited to estimated future revenues. In other words, additional parity bonds could be issued if the future net earnings from the project, as estimated by the issuer's consulting engineer, would cover debt service plus a margin of safety. It is rare today when an earnings base does not include a showing of actual net revenues during the preceding year or period in relation to debt service. Frequently, the actual, or historical, earnings test stands above, unadulterated by the estimate of earnings for future years. One reason for this is the insistence of at least one of the rating agencies that the authority to issue additional parity revenue bonds—even completion bonds—without a historical earnings test is cause for refusal to rate the bonds. The second part of the earnings test—the times coverage—has also become stricter in recent years. The margin required depends again upon the nature of the issuer and the project but percentages of 135 and 150 are not uncommon today. In all of these earnings tests, more thought is given today to reflecting possible adverse conditions, such as the effect of construction or threatened construction of competitive facilities, as well as eliminating speculative elements wherever possible.

There has been an increased interest during the past two decades in the use of subordinate liens in the field of revenue bond financing, in part because of the inability to issue additional *pari passu* bonds because of strict earnings tests. The use of the subordinated lien in temporary or interim financing is fairly common. However, it is also receiving wider acceptance today as a means of creating new bonds without disturbing the prior pledge of revenues securing the outstanding bonds. Sometimes this is done with the consent of the prescribed percentage of holders of the outstanding bonds, as in the case of the New Jersey Turnpike Authority in 1952. It may also be accomplished without requiring bondholders' consent where the existing bond resolution authorizes the use of surplus revenues for general corporate purposes. In that case, the surplus revenues may be made available to the subordinated lien bonds, and upon the retirement or payout of the prior lien bonds the new bonds will succeed to the position of the first lien. Where the coverage was insufficient to support an entire issue of first lien bonds, projects have also been financed initially through the use of first and second lien bonds, and in some cases third lien bonds.

The maximum repayment period for revenue bonds, while regulated largely by market conditions prevailing and the time of issuance, has probably lengthened on the average in the past 20 years, subject, of course, to the statutory limits which may be prescribed in each case. This is due in part to a market demand for long-term investments. It is also due in part to the desire of the issuer to spread its debt service burden in order to accommodate future possible bond issues for other projects or improvements which share in the same revenues.

Capitalization of interest out of revenue bond proceeds is more common today than it was 20 years ago. In the case of new projects with a lengthy construction period, it is almost essential to provide for funded interest during the period before the project becomes revenue-producing. In addition to the security provided by funded interest, it is also a source of investment income during the initial period. Most revenue bond laws provide for capitalization of interest during the construction period and a reasonable time thereafter, and most issuers financing new projects take advantage of its benefits.



## CHAPTER 8

### Patterns of Lease-Rental Financing\*

#### A. INDUSTRIAL AID FINANCING

##### 1. NATURE OF INDUSTRIAL REVENUE BONDS

Industrial development bonds are issued by local government bodies—city, State, county, municipality, etc.—to buy or build plants and equipment to be leased to private enterprise. The most common variety of industrial development bonds is a revenue bond, which is supported solely by rents derived from the facility. Some issues, however, have been general obligations which pledge the credit and taxing power of the issuer in addition to rents from the project.

The primary purpose of industrial development bonds is to attract new industries to areas by offering lower costs than would be incurred through traditional methods of corporate bond financing. Since the interest on municipal bonds is exempt from Federal income taxes, local governments are usually able to borrow funds in the capital markets at interest rates lower than those available to private borrowers.

Typically, a municipality will sell bonds to purchase a site and build a plant for a particular company, usually to the company's specifications. It is then leased to the company for a period of time sufficient for rental payments to cover principal and interest on the bonds. Should the tenant default, he is subject to eviction and another company is then sought to fill the premises. If the plant was financed by revenue bonds, any loss must be stood by the bond holders.

The first industrial aid bond was issued in the State of Mississippi in 1936. Authority for the issue came from Mississippi's then new "balance agriculture with industry" (BAWI) plan which was State sponsored and legislatively approved, and made industrial aid financing available to all Mississippi's communities. The first issue originated in Durant, Miss., for the construction of a factory for the Realsilk Hosiery Mills. The amount of the issue was \$85,000. Between 1936 and 1950 only Mississippi and Kentucky had authorized the use of industrial development bonds, but during that period very few such bonds were issued.

In 1952, the city of Florence, marketed an issue of bonds convertible into stock.

The first issue of industrial development bonds by Durant, Miss., was of the general obligation type. Today only Mississippi uses general obligation bonds extensively, though Tennessee, Arkansas, and Louisiana have made some use of this technique. Both revenue bonds and general obligation bonds are tax exempt, but they differ in the credit standing behind the issue. Since general obligation bonds

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\* Prepared by James F. Reilly, Partner, Goodbody and Co., with minor editing by committee staff.

pledge the full faith and credit of the municipality they have the advantage of being easily marketed. However, most States limit the amount of local bonded debt to the value of local property. Communities are often restricted to small scale financing and one issue may exhaust the possibility of further general obligation financing for many years.

Thirty States have authorized the use of industrial development bonds, although in some States the authorization is not statewide.

The following table lists the States allowing industrial development bonds and the year such enabling legislation was passed.

TABLE 1.—States allowing industrial development bonds

Mississippi -----	1943	Wisconsin -----	1957	Virginia -----	1962
Kentucky -----	1948	Arkansas -----	1958	Iowa -----	1963
Alabama -----	1951	Georgia -----	1960	Michigan -----	1963
Illinois -----	1951	Maryland -----	1960	Arizona -----	1963
Tennessee -----	1951	Missouri -----	1960	West Virginia -----	1963
Louisiana -----	1953	Nebraska -----	1961	Wyoming -----	1963
New Mexico -----	1955	Oklahoma -----	1961	Hawaii -----	1964
North Dakota -----	1955	Kansas -----	1961	South Dakota -----	1964
Vermont -----	1955	Minnesota -----	1961	Montana -----	1965
Washington -----	1955	Maine -----	1962	Rhode Island -----	1965

Four States—Arkansas, Mississippi, Alabama, and Kentucky—accounted for 80 percent of total industrial development bond financing accomplished during 1964, and 90 percent of the total in the first half of 1965.

Of the 30 States allowing the use of industrial development bonds, only Louisiana has limited itself to general obligation bonds, although the authority to issue revenue bonds exists. All other States use revenue bonds which are not subject to the restrictions placed on general obligations.

Of all Government sponsored plans to aid industry, industrial development bond financing has become the most popular type of State and local industrial financing. Through the first half of 1965, the Investment Bankers Association estimates \$729 million of municipal industrial bonds have been issued. This exceeds the combined total of all other forms of State and local industrial aid financing.

TABLE 2.—Volume of industrial development bonds <sup>1</sup>

Year	Amount
Before 1951 -----	\$5, 715, 000
1951 -----	6, 920, 000
1952 -----	8, 790, 000
1953 -----	9, 300, 000
1954 -----	4, 759, 000
1955 -----	11, 790, 000
1956 -----	6, 421, 000
1957 -----	7, 612, 000
1958 -----	12, 740, 000
1959 -----	22, 946, 000
1960 -----	46, 867, 000
1961 -----	71, 771, 000
1962 -----	89, 342, 000
1963 -----	143, 535, 000
1964 -----	178, 627, 000
1965 -----	211, 531, 000

<sup>1</sup> Investment Bankers Association.

The volume of industrial development bonds issued has risen sharply in the last few years. Since 1960, issues have averaged more than \$100 million a year. The great increase in dollar amount of industrial development bonds is largely attributable to their use by large national companies for new buildings and equipment.

Further impetus to the growth of industrial development financing came in 1963 when the Internal Revenue Service ruled (63-20) that nonprofit corporations may, under certain conditions, issue tax-exempt industrial bonds. This has allowed municipalities in States which do not have legislation authorizing industrial development bonds to make use of this type of financing. Thus far, several issues have been made under the ruling in North Carolina and Arizona, the largest for the American Sugar Co. (\$22,250,000 first mortgage bonds, series A of the Industrial Development Corp. of Maricopa County, Ariz., August 1, 1964).

## 2. BOND YIELDS

Buyers are attracted to industrial development issues for two basic reasons: (1) they are a good credit risk, and (2) they yield a high interest rate (some of the smaller issues having found local markets). Assuming reasonable credit, the most outstanding attraction of industrial development bonds has been their high yields. These rates have served to break down many objections to this form of financing. The spread between good general market bonds and good industrial development bonds has been decreasing, but the difference is still substantial, as shown by the following table.

TABLE 3.—Comparative yields (selected Alabama issues)

Date	Issue	Rate 20-year bond	Bond buyer 20 bond average	Differential
		<i>Percent</i>	<i>Percent</i>	
August 1957.....	Decatur-Fruehauf.....	5.00	3.57	1.43
March 1961.....	Cherokee-Armour.....	4.75	3.48	1.27
September 1962.....	Opelika-U.S. Rubber.....	4.25	3.10	1.15
November 1962.....	Mobile-Diamond Alkali.....	4.15	3.05	1.10
May 1963.....	Decatur-Fruehauf.....	4	3.08	.92
August 1963.....	Carbon-Hill-Chuett Peabody.....	3.80	3.12	.68
August 1965.....	Scottsboro-Revere Copper.....	4	3.36	.64

Bond dealers have been very successful in creating markets for this type of paper. More than one-third of all industrial development bonds issued have been placed with insurance companies. A good part of the remainder has gone to banks. As these issues have become more widely known, private individuals have also become an important group of buyers.

## 3. LEGAL ASPECTS

Industrial development bonds have caused little difficulty in Federal courts for they easily satisfy the requirements of the 14th amendment. The problem has been more difficult in State courts. All States require that the borrowing and taxing powers of the State conform to the public service doctrine, but more importantly, almost all States prohibit the use of State or local funds to aid a private party.

For example, the Alabama constitution states:

"The legislature shall not have the power to authorize any county, city, town, or other subdivision of this State to lend its credit, or to grant public money or thing of value in aid of, or to any individual association, or corporation whatsoever, or to become a stockholder in any such corporation, association, or company, by issuing bonds or otherwise.<sup>1</sup>

Objections to industrial development bonds were overcome in Mississippi when the highest court, and later the U.S. Supreme Court, ruled for the defendants in the case of *Albritton v. Winona*. The Mississippi court stressed that a constitution could not be a static document; it had to change as times and conditions dictated.

In 1950, the Kentucky Court of Appeals, upheld the State's revenue bond act.<sup>2</sup> The court in this instance, avoided discussion of public purpose, concluding instead that revenue bonds do not constitute a use of municipal money or taxing power. The court stated that it was, in fact, unconstitutional for a city to lend its credit for use. However, the opinion continued, the use of a city's name and the performance of services as a trustee alone was not a loan of credit.

Other State courts' decisions in favor of industrial development bonds have basically followed the precedents set in the two cases just discussed. There have, however, been decisions which were against industrial development programs.

In 1952, the highest court of Florida held that a proposed revenue bond issue<sup>3</sup> was unconstitutional on the grounds that the State constitution specifically prohibited the lending of public credit for private use. In contrast to the Kentucky decision, the Florida court held that the proceeds of the bond issue would be public funds and, as such, could not be used to aid private enterprise.

Decisions in Nebraska<sup>4</sup> and Idaho<sup>5</sup> followed the reasoning of the Florida court. The Nebraska court stated that allowing revenue bonds for industrial development involved "fundamental fallacies of reasoning" which would constitute a death blow to the private enterprise system and reduce the constitution to a shambles insofar as its protection of private enterprise is concerned.<sup>6</sup> The Idaho court felt that earlier decisions which allowed revenue bonds were apologies dictated by expediency. The Nebraska decision was overridden by a constitutional amendment in 1960.

Georgia presents an interesting situation. There is no statewide authority for the issuance of industrial development bonds. However, in 1952 the State constitution was amended to allow for local constitutional amendment. Under this system a proposed amendment to the constitution is reviewed to determine if it is of general and local application; if it is only local then it is voted on by the citizens of the political subdivision affected; if ratified it becomes a local constitutional amendment. In this way many Georgia counties have been authorized to issue revenue bonds or revenue anticipation certificates for industrial development purposes.

<sup>1</sup> Alabama constitution, art. 4, sec. 94.

<sup>2</sup> *Faulconer v. City of Danville*, 313 Ky. 468, 232 S.W. 2d 80 (1950).

<sup>3</sup> *State v. Town of North Miami*, 59 So. 2d 779 (Fla. 1952).

<sup>4</sup> *State ex. rel. Beck v. City of York*, 194 Neb. 223, 82 N.W. 2d 269 (1957).

<sup>5</sup> *Village of Moyie Springs v. Aurora Mfg. Co.*, 82 Idaho 337, 353 P. 2d 767 (1960).

<sup>6</sup> 82 N.W. 2d, p. 274.

Decisions for industrial development programs, or against them, have resulted from those points the court chose to emphasize—either public funds aiding private enterprise or, on the other hand, private enterprise benefiting the community. The question of cause and effect in this area will continue to be debated in the courts.

The Internal Revenue Code provides that interest on obligations of a State or any of its political subdivisions is not included in gross income.<sup>7</sup> This includes revenue bonds and bonds issued by municipally owned corporations regardless of the purpose for which the bonds are issued.<sup>8</sup> In 1957, the Internal Revenue Service ruled that bonds issued by an industrial development board authorized by a State would be considered as issued on behalf of a political subdivision of the State and therefore exempt from Federal tax.<sup>9</sup>

In a 1963 ruling,<sup>10</sup> the Internal Revenue Service showed its disapproval of the "abuse of privilege" by some industrial corporations and acted to prevent the use of industrial development bonds as a means to circumvent the law. The IRS set forth specific requirements for tax exemption. The ruling stated that bonds issued by a nonprofit corporation formed under the general corporation laws of a State for the purpose of financing the acquisition, lease, and sale of industrial facilities would not be considered as having been issued on behalf of a political subdivision within the meaning of the code where: (1) the municipality did not have a beneficial interest in the corporation while its bonds were outstanding; (2) although the articles of incorporation provided that the corporate property would be transferred to the county, upon retirement of the bonds or dissolution of the corporation, there would not necessarily be a vesting of full legal title in the county since the corporation may never be dissolved or the bonds retired; and (3) neither the State nor any political subdivision had approved the specific bonds issued by the corporation even though they may have authorized the creation of the corporation and approved its general objectives.

## B. LEASE RENTAL AND AUTHORITY FINANCING

### 1. NATURE OF FINANCING

When World War II ended in 1945, State and local governments were faced with a huge backlog of needed public facilities. Funds for these projects would have been expected to have come from State and municipal bond issues. But most States, as a result of excessive borrowing in the 19th century, had constitutional and statutory restrictions on the issuance of debt. These debt restrictions took the form of:

1. Prohibitions against public aid to private enterprise.
2. Debt limitations fixed as a percentage of property valuation.
3. Requirement of a referendum for all bond issues.
4. Maximum periods beyond which debt could not run.
5. Mandates that a direct tax be levied at the time the bonded debt is incurred and annually thereafter to pay the interest as it accrued and the principal at maturity.

<sup>7</sup> Int. Rev. Code of 1954, sec. 103.

<sup>8</sup> Rev. Rul. 54-106, Cum. Bull. 1954-1, p. 28.

<sup>9</sup> Rev. Rul. 57-187, Cum. Bull. 1957-1, p. 65.

<sup>10</sup> Rev. Rul. 63-20, Cum. Bull. 1963-1, p. 24.

As an illustration, Kentucky provides an excellent example. The present constitution of Kentucky was adopted in 1891 and represents the natural reaction at that time to the fiscal irresponsibility of the Reconstruction era which followed the Civil War. Attempts to revise or amend it have been generally unsuccessful.

The constitution prescribes very low general obligation debt ceilings for cities, counties, school districts, and all other public bodies having the power of taxation. No district may incur in any year debt exceeding the income and revenue provided for such year without the assent of two-thirds of the voters thereof. School districts may incur indebtedness only up to 2 percent of the assessed value of taxable property within the district.

Thus, even if a school district is able to marshal a two-thirds majority to authorize general obligation indebtedness, the 2-percent limit is so low that the building needs of most school districts would not be satisfied.

The dilemma was resolved when, during the 1930's, a school board devised a plan which was approved by the Kentucky Court of Appeals.

A nonprofit corporation was created and the school board conveyed the site to the corporation, and the corporation then constructed the desired school building, sold bonds to pay for the construction, and simultaneously leased the building to the school board for only 1 year at a time—at such rentals, if renewed from year to year, as would amortize the bonds and still not cause the school board to exceed its budget in any year. It was agreed that after the bonds were retired, the building would be deeded back to the school board.

This, then, is authority or lease-rental financing.

Lease-rental financing has been used primarily for two major purposes:

- (a) For construction of school buildings.
- (b) For construction of other public buildings.

School buildings have been built under lease-rental plans in the following States: Georgia, Indiana, Kentucky, Maine, and Pennsylvania.

Most lease-rental projects have financed school building programs in States whose constitutions impose debt limitations. Through this method of financing, adequate school systems have been provided. This method of bypassing constitutional restrictions has also been successfully employed for the construction and maintenance of State office buildings. In this case, an authority is established which issues bonds to construct or acquire a building to be leased to the State (or municipality or appropriate agency). Bond principal and interest are secured by the pledge of rental payments from the State.

States in which authorities have constructed public buildings on a lease-rental basis include: California, Colorado, Georgia, Illinois, Indiana, Kentucky, Michigan, Missouri, Pennsylvania, West Virginia, and Wisconsin.

## THE AUTHORITIES

### CALIFORNIA

Lease-rental financing has been used extensively in California on a citywide or countywide basis (i.e., a city or county, but not the State became lessee). Its major function has been the construction of civic buildings (courthouses, community centers, etc.) and stadiums, such

as Candlestick Park in San Francisco. The largest issues outstanding today follow:

SAN DIEGO STADIUM AUTHORITY

Created through agreement between the city of San Diego and San Diego County as an agency for borrowing funds for construction of a multipurpose stadium to be leased to the city or county.

April 7, 1966, authorized and issued \$27 million.

LOS ANGELES MEMORIAL COLISEUM COMMISSION

An agency existing under article 1, chapter 5, division 7, title 1 of the Government Code of California to acquire and construct and maintain exhibition building coliseums, sports arena, and other buildings for sporting events.

Commission owns and operates Los Angeles Memorial Coliseum and Los Angeles Sports Arena and receives rental payments from the city.

Outstanding June 1964, \$6,300,000.

ANAHEIM (CITY) STADIUM, INC.

Incorporated June 18, 1964, under provision of general nonprofit corporation law of State, established to provide financial assistance for and on behalf of city of Anaheim. Stadium leased to city.

October 1, 1964, \$21,500,000.

ANAHEIM (CITY) AND ANAHEIM UNION HIGH SCHOOL DISTRICT  
COMMUNITY CENTER AUTHORITY

Created March 1, 1965, by agreement between city and school district for purpose of construction of a convention center, leasing it to the city for 35 years beginning in 1965.

Issued and outstanding, \$14,500,000.

FRESNO CITY-COUNTY COMMUNITY AND CONVENTION CENTER AUTHORITY

Created by joint exercise of powers agreement between city and county of Fresno. Authority empowered to do all things necessary to finance and construct a center to be leased to the city.

May 1, 1964, \$8,500,000.

OAKLAND-ALAMEDA STADIUM, INC.

Bonds issued April 1, 1964, \$25,500,000.

COLORADO

State Highway Department Office Authority organized June 21, 1951, under Colorado Statutes Annotated 1935, to acquire land and erect buildings for lease of same to State highway department for offices and for housing highway equipment.

Authorized, \$2,388,000.

Outstanding June 30, 1965, \$593,000.

## GEORGIA

Certain authorities and agencies are allowed to issue bonds supported by lease-rentals from the State under a 1960 constitutional obligation placed on legislature to meet such rentals (art. VII, sec. VI, par. I(a) of the constitution of the State of Georgia as amended (Georgia Laws, 1960, pp. 1273-1276) and ratified by voters November 8, 1960, and proclaimed by the Governor November 29, 1960.

On October 15, 1962, U.S. Comptroller of the Currency ruled that bonds of the Georgia State authorities are exempt securities within the meaning of section 5136 of the Revised Statutes and may be underwritten by national banks, and portfolio holdings are not subject to limitation.

## GEORGIA STATE SCHOOL BUILDING AUTHORITIES

Public bonds created by 1951, Georgia Legislature:

(1) To acquire, construct, and operate self-liquidating projects embracing school buildings, classrooms, laboratories, etc., for students, etc., of any institution under control of State board of education or governing bodies forming part of the State school system.

(2) To execute leases of such facilities with various county boards of education, city boards of education or independent districts.

(3) To issue revenue bonds of the authority payable from revenues, rents, and other funds of the authorities; to pay costs of such projects and authorize collections and pledging of revenues and other charges for payment of such bonds and for maintenance costs of the projects.

In 1952, the State began a program of school construction. From 1952-55 \$157 million bonds were issued. In 1960, new surveys showed that more funds were needed. An additional \$70 million was authorized in 1961-62 followed by a continuing annual allotment of \$5.5 million beginning in the year ended June 30, 1961, for capital outlay to provide funds to pay annual rentals in lease agreements between the authority and local school units (State board of education became joint lessee).

Total authorized to June 30, 1965, \$270,134,000.

Outstanding, \$164,657,000.

## GEORGIA STATE OFFICE BUILDING AUTHORITY

Created by General Assembly of the State of Georgia at the 1951 session as amended in 1953. Organized to (1) construct, acquire, own, equip, and manage self-liquidating office building projects and lease them to State departments or agencies; (2) issue and service bonds of the authority to finance cost of projects.

Rentals charged to the State departments and agencies are calculated to pay bond principal, interest, and costs of operation and maintenance of buildings.

Total authorized, \$26,600,000.

Outstanding, \$12,644,000.

## CITY OF ATLANTA AND FULTON COUNTY RECREATION AUTHORITY

The authority was created by the General Assembly of the State of Georgia at its 1960 session. In 1964 bonds were issued by the authority



to acquire and construct a multipurpose athletic stadium and related facilities. Principal and interest on the bonds would be had through rental payments by the city of Atlanta.

May 1, 1964, authorized and outstanding, \$18 million.

## ILLINOIS

### ILLINOIS BUILDING AUTHORITY

Created by act of 1961 (amended 1963) to provide hospital, housing, classrooms, laboratories, offices and other such facilities for the State of Illinois.

Bonds may be issued, secured by revenues from projects or combinations for which they were issued, including rent from State agencies, departments, and universities.

Authorized and outstanding, \$25,000,000, for :

University of Illinois.....	\$11, 224, 646
Department of Public Safety.....	6, 320, 930
Teacher's College Board.....	5, 354, 308
Southern Illinois University.....	1, 388, 020
Department of registration and education.....	712, 096
Total .....	25, 000, 000

## INDIANA

### INDIANA STATE OFFICE BUILDING COMMISSION

Created in 1953 by the general assembly (amended 1957) to construct a State office building.

Issued, \$30 million, July 1, 1958.

Outstanding, June 30, 1965, \$28,525, 000.

Payable from and secured by pledge of net income and revenues of a 13-story State office building (rentals from 50 departments of State).

Local school building corporations—In Indiana (all organized under act of 1947, as amended).

Total bonds issued, \$223,591,000, divided among 103 school corporations.

## KENTUCKY

### KENTUCKY STATE PROPERTY AND BUILDINGS COMMISSION

Created to acquire real estate and buildings projects for any State agency—to purchase, lease, rent, or acquire by condemnation real estate needed for use of State or State agencies.

Total bonds authorized, \$17,255,000.

### KENTUCKY PUBLIC SCHOOL AUTHORITY

Created by H.B. 273, general assembly re session 1960, as instrument of the Commonwealth to assist the board of education of county and independent school districts in financing school projects.

The authority can issue bonds payable solely from rentals received from the board of education (as lessee).

*No bonds have been issued.*—Local and county school district authorities have issued more than \$200 million in revenue bonds payable from rents received from the boards of education.

## MAINE

## MAINE SCHOOL BUILDING AUTHORITY

Created by chapter 405, Maine laws of 1951, to build and lease public school facilities.

Debt limited to \$25 million—outstanding at any particular time.

As of August 1, 1965, total of all issues was \$8,810,000. This amount has been divided among 28 issues.

## MICHIGAN

## MICHIGAN STATE OFFICE BUILDING AUTHORITY

Incorporated under provisions of Act 31 Public Act of Michigan 1948 (first extra session), as amended. Issued April 5, 1966, \$2,150,000 to acquire a building and site in the city of Grand Rapids for the use of the city as an administration building.

## MISSOURI

## MISSOURI BOARD OF PUBLIC BUILDINGS

Board of public buildings created under 1959 legislation and authorized to acquire sites and construct buildings for use by State agencies in any city of 10,000 population and to issue revenue bonds. February 17, 1966, issues were \$5 million for State office building in Kansas City.

## PENNSYLVANIA

## GENERAL STATE AUTHORITY OF THE COMMONWEALTH OF PENNSYLVANIA

A public corporation and instrument of the government created by the general State authority—act of 1949 (Act 34; Public Law 372, subsequently amended).

The authority can, among other things, lease to the Commonwealth any project and property of the authority.

Authorized in 1949 to borrow up to \$175 million. By 1963, authorization had risen to \$1,092,734,600.

Bonds are direct and general obligations of the authority secured by the full faith and pledge of rentals (sufficient to meet annual principal and interest payments).

Completed projects, 897—cost.....	\$456, 961, 365
Projects under construction, 200—cost.....	383, 916, 860
Planned projects, 296—cost.....	216, 203, 662

## Departments benefited :

Public welfare.	Agriculture.
Public instruction.	Justice.
State-aid colleges.	Military affairs.
Forest and waters.	Pennsylvania State Police.
Pennsylvania Historical and Museum.	Property and supplies.
Health.	Revenue.
Penn State University.	Fish commission.

## PENNSYLVANIA STATE PUBLIC SCHOOL BUILDING AUTHORITY

Created by act of July 5, 1947, Public Law 1217 (as amended) to construct, improve, and operate public schools and collect rentals for the use thereof.

Bonds of the authority are not obligations of the Commonwealth but of the school districts—payable only from rentals—constitutionality of act was upheld by the Supreme Court of Pennsylvania.

All lease rentals are calculated to produce 120 percent of principal and interest requirements.

Through 1965 the Commonwealth appropriated (through legislative act) \$469,608,136 as subsidy to school districts—portions are to reimburse rental payments.

From beginning of the authority in 1949 to June 30, 1965, 586 projects were completed or begun.

#### PUBLIC AUDITORIUM AUTHORITY OF PITTSBURGH AND ALLEGHENY COUNTY

The authority was incorporated in 1954 by the county of Allegheny in the city of Pittsburgh, pursuant to the public auditorium authorities law (act of July 29, 1953, Public Law 1034), to acquire, construct, improve, maintain and operate public auditoriums. Issued October 9, 1961, \$15 million (rental payments are made by both the city and the county).

#### WEST VIRGINIA

##### WEST VIRGINIA STATE OFFICE BUILDING COMMISSION

The commission maintains and operates a State office building which is leased to three State agencies. The building was constructed with an authorized bond issue of \$1,700,000. Amount outstanding July 2, 1965, \$874,000.

#### WISCONSIN

##### WISCONSIN STATE AGENCIES BUILDING CORP.

Organized under Wisconsin nonstock corporation law, chapter 181, Wisconsin statutes, as a nonstock, nonprofit corporation to construct, equip and furnish buildings, structures, and facilities and other permanent improvements for university, State college, and general State purposes.

Thus far, bonds totaling \$125,680,000 have been issued. They are payable from rental revenues and other funds to be derived from lease of certain buildings and facilities.

##### WISCONSIN STATE PUBLIC BUILDING CORP.

Organized as above to construct, equip, and furnish buildings for general purposes including housing for State offices.

Seventeen million dollars in bonds have been issued and are outstanding.

## CHAPTER 9

# Municipal Bond Underwriting\*<sup>1</sup>

### INTRODUCTION

Underwriting of municipal bonds is the process by which an investment banker purchases bonds from the issuing city or other governmental unit and, in turn, distributes them to the ultimate investor. The underwriter both assumes the market risk during this period and fulfills a distribution function.

As indicated in a previous chapter, the vast preponderance of new municipal bond issues are distributed through the underwriting efforts of investment dealers and dealer banks. Relatively few municipal issues are privately placed with investors or sold to investors through a dealer acting as agent for the issuer.

The purpose of this chapter is to describe briefly (1) the nature and function of the investment banker, (2) the industry within which he operates, and (3) selected characteristics of new issues of municipal bonds which partially reflect the structure and evolution of the underwriting process. As with any study that artificially dissects its subject, this examination was plagued with the lack of information in the form required. And as with similar studies, indirect measures were used in lieu of the preferred but unavailable direct measures. This necessary substitution is noted where appropriate.

### THE INVESTMENT BANKER

#### GENERAL CHARACTERISTICS

In acting as an underwriter, the investment banker<sup>2</sup> performs his primary function by purchasing bonds from the "municipality" and selling them in turn to his investor clients. As a catalyst in the marketplace, he is responsible for obtaining the best terms possible for both the buyer and seller and his business success is dependent on this ability.

The investment banker also may act at different times as a dealer in the secondary market, buying and selling bonds for his own account; as a broker, buying and selling for the account of investors and being compensated by fee; or as a financial consultant.

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\*Prepared by John E. Walker, research director, Investment Bankers Association of America, with minor editing by committee staff.

<sup>1</sup>The author is indebted to the Research Committee of the IBA and in particular to Mr. Winthrop S. Curvin of Smith, Barney & Co., Inc., for their extensive comments and help. Almost needless to say, the prerogatives of the author were maintained and errors beyond the control of the committee have been included.

<sup>2</sup>In speaking of "investment banker" in municipals, the term must include not only dealers but also dealer banks, inasmuch as, under Federal banking laws, banks are permitted to underwrite municipal "general obligation bonds."

When acting as either underwriter in the primary market or dealer in the secondary market, the investment banker contemplates making a profit by marking up his merchandise in much the same manner as a wholesale or retail merchant in commodities. He invests his own capital—or borrowed funds—in bonds, assumes all of the risks inherent in ownership thereof, and if in the judgment of the market provides a valuable product, is able to pay his overhead and carrying costs, compensate his salesmen, and make a profit.

As a dealer in the secondary market where the "float," or inventory, of bonds will at any particular time measure several hundred million dollars, the dealer provides a means for the orderly exchange of seasoned bonds among investors. Since the municipal market is almost exclusively an over-the-counter market, the services of the hundreds of dealers operating on a nationwide basis assure the marketability of bonds—the ready conversion of bonds to cash and vice versa—which is so vitally important to all investors.

As a broker the investment banker provides a further service to his clients by undertaking to seek out the best market for a particular bond and to enable an investor to purchase or sell bonds at a reasonable commission.

Operating in the primary market as an underwriter, the investment banker provides a necessary service to municipalities. He stands ready to risk his capital in bidding for bonds offered in blocks by the issuer and distributes the bonds to his clients who are seeking profitable investments. It is thus through his efforts that the hundreds and thousands of investors of all sizes and types funnel their resources to municipalities which need funds for schools, civic improvements, public utility enterprises, roads, etc.

#### SOURCES OF FINANCING

The inventory required in order to effectively conduct business is an important consideration for the investment banker. Because of the almost infinite variety of bonds available for sale (rating, maturity, coupon rate, type security, and issuer are all important considerations for the investor), municipal bond inventories are large relative to inventories of other securities.<sup>3</sup> The method of financing of these inventories is thus an important aspect of the business.

Inventories of municipal bonds are financed basically in the following three ways: (1) by use of the investment bankers' own capital, (2) by commercial bank loans, and (3) through repurchase agreements.

The most common form of financing is through use of the investment bankers' own capital. This is true whether the firm is a dealer bank or a dealer, or whether the firm is a partnership or a corporation. Additionally, the size of the firm is not of great significance.

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<sup>3</sup> As evidenced by a survey conducted by the Wharton School of Finance and Commerce of broker-dealer inventory practices for the first quarter of 1962. Although the variability among individual firms was great, inventory-sales ratios for new issues "averaged 4 percent for common stock, 9 percent for corporate bonds, and 29 percent for municipal bonds; for outstanding issues, the figures were 8 percent for common stock, 11 percent for U.S. Governments, 24 percent for corporate bonds, and 30 percent for municipals." Irwin Friend, "Investment Banking and the New Issues Market—Summary Volume," University of Pennsylvania, 1965.

Very few firms have so much excess capital that all fluctuations in the demands for capital can be met internally. Investment bankers are no exception. Commercial bank loans are an important source of short-term funds for use in carrying peak inventories. The use of commercial bank loans can be, however, particularly costly. Since investment bankers cannot deduct such interest charges for carrying municipal bonds in inventory as a business expense, the effect is that the firm may be paying 6 percent from after tax funds to carry bonds which are yielding tax free (and thus after tax) income of only 4 percent—a loss of 2 percent.

Repurchase agreements at one time were a rapidly increasing method for financing. At present this is not widely used. Under such a system the investment banker sells the bonds to a short-term investor with an agreement to repurchase within a specified time. The effect of such an agreement is to provide the investor with a short-term tax exempt investment and enables the dealer to minimize his cost of carrying inventory.

#### RISK

In assuming his role as an underwriter of municipal bonds, the investment banker is obviously faced with certain risks against which he attempts to protect himself to the greatest extent possible, and for the acceptance of which he expects to receive a reasonable compensation. He is operating in an intensely competitive market in which the difference between the winning and second bids is normally a minute fraction of 1 percent of the principal amount of the bonds being offered for sale and in which the margin of gross profit—from which all of his costs must be paid—is usually in the range of 1 to 2 percent of the price of the merchandise. He is faced with delicate decisions of judgment as to the acceptability by investors of the particular bonds for which he is bidding. He must weigh the effect that a myriad of sensitive factors can have upon the markets in general and upon the particular bond issue in question. His objective is a rapid turnover of his capital at a small profit margin; he is not voluntarily a long- or intermediate-term holder of the bonds for which he is bidding. Thus, if he is to be successful, he must bid aggressively for new bond offerings but at the same time be constantly alert to assure that he does not set so high an offering price on his merchandise that it is unsalable or unattractive in relation to the hundreds of other comparable bonds which may at the time be offered either in the primary or secondary market.

As an example of the narrow margin between profit and loss and the risks involved in this underwriting operation, consider the hypothetical instance of a \$1 million bond issue. For simplicity, assume that these bonds mature in 25 years and bear interest at 4 percent. In underwriting this issue, a dealer might bid par (\$1,000 per bond) hoping to offer the bonds at a price of 101 (\$1,010 per bond), making a gross profit of 1 percent or \$10,000. At the proposed offering price the bonds would yield approximately 3.94 percent to the investor. Should the dealer find that investors are unwilling to purchase the bonds unless the yield is 4 percent, then the dealer would have to cut his offering price to that level or down to \$1,000 per bond—a price equal to his own cost. His loss would equal those costs which he could not avoid. If the best price acceptable to investors should be

4.04 percent—a mere 0.10 percent away from the dealer's market appraisal, he would then receive only about 99% (\$993.75 per bond) and suffer a loss of some \$6,250 in capital plus whatever costs he incurred.

#### THE DECISION TO UNDERWRITE ALONE OR WITH OTHERS

In considering a bond underwriting, the dealer must appraise the state of the market, his own inventory position, the quality and acceptability of the bond itself, and other factors which may have an immediate bearing upon his bidding capabilities and then determine whether he will bid for the issue alone or ask another dealer or other dealers to join with him in a group—or syndicate—to spread the risk of the venture and to share price ideas and selling potentials. This sort of decision is faced every day and often several times a day by the investment banker.

Obviously, the size of the bond offering has a decided bearing upon the decision as to whether to bid alone or in concert with others acting as a syndicate, and, just as obviously, the size of the offering will have a material bearing upon the number of members in a syndicate. Whereas an investment banker may feel comfortable in bidding alone for a \$500,000 issue, he may want, say, two joint partners in bidding for a \$1 million issue, and he may form a group—or join a group—consisting of 100 or more dealers in bidding for a \$50 million issue.

Thus, the system of syndicate bidding—or syndication—has grown in the municipal bond industry. By means of the syndicate arrangement, dealers of all sizes and of all geographical locations may be brought together in a group to participate in bidding for and offering bond issues of all sizes and types. At any one time a dealer may be a member of as many as 10 to 20 syndicates which, depending upon market conditions, may have undistributed balances varying from a few bonds to several million dollars worth of bonds. Without the syndicate method the full underwriting strength of the investment banking industry could not be brought to bear in an orderly fashion in the distribution of the myriad of issues of varying amount, quality, maturity range, and geographical diversity.

#### SYNDICATE MANAGEMENT

The organizer of the syndicate is termed the "manager." In many instances two or more firms may be "joint managers." The presence of joint managers may come about by reason of several factors. For example, if a municipality offers for sale a \$20 million issue, two (or more) firms may commence the formation of a syndicate and determine to combine their efforts. Again, two complete syndicates may be formed but, during the process of determining the bid price, they may decide that they can have a stronger syndicate and make a higher bid if they merge the two syndicates into a single group prior to bidding.

Once a manager has formed a syndicate to bid for the bonds offered by a particular municipality, he will normally invite the same group to join him when that municipality sells a like amount of bonds at a subsequent sale. Although the members thus invited are at liberty, of course, to make other arrangements, there is a tendency to continue with the same group. Should this municipality at some other time

offer, say, twice as many bonds as it had in the past—a not infrequent occurrence—then two (or more) syndicates may merge for that particular sale and submit a single bid. In extreme cases, all of the groups formed to bid for an issue may, for one reason or another, determine to merge together into a single large syndicate and submit one bid to the issuer. In modern competitive markets this seldom occurs unless there is some special consideration such as the unusual size of the offering or the presence of an unusual degree of risk involved in the underwriting.

In the formation of syndicates the primary goal of the managers is to form as strong and competitive groups as possible. The manager invites firms with strong underwriting and strong selling potentials. Many times in a single week dealers A, B, and C may bid against each other in syndicates, or dealers A and B may be together bidding against C, or dealers A and C may be in a syndicate bidding against B. In short, the composition of the syndicate for a particular issue—e.g. Port of New York Authority—may be entirely different from that formed by the same manager for, say, State of North Carolina.

#### PARTICIPATION AND UNDERWRITING LIABILITY WITHIN A SYNDICATE

In forming a syndicate, the manager assigns to each participant a definitive number of bonds which that participant will underwrite. These amounts are assigned on the basis of size of firm, underwriting and selling potential, historical and known ability to distribute a certain issue or type of bonds, and in part upon the request of the participant. Each group contains one or more "major underwriters," including the manager, who take the largest participations. Following this group are other underwriters in various groups or categories appropriate to their underwriting and distributing capabilities. During the pricing process, changes in participations may occur as members withdraw and participations must be revised. After the submission of the bid, the participations are frozen.

With respect to individual liability of the members of a syndicate, two types of agreements exist—the "eastern or undivided account" and the "western or divided account." In the undivided account, each member is liable for his proportionate share of any bonds remaining unsold in the account at any time, regardless of the number of bonds which such member may have sold himself. In the divided account, the liability of each member is limited to his participation in the account at the time of purchase of the bonds; a member may sell a volume of bonds equal to his participation and eliminate his liability, even though bonds remain unsold in the syndicate. Both forms are prevalent, although the undivided account is more widely used, particularly in underwriting serial bond issues. Divided accounts are customarily formed for term bond issues, and occasionally part of an issue may be on an undivided liability basis and part on a divided liability basis. Examples of the typical syndicate agreement forms for each type of account are found in the appendix.

#### SYNDICATE PRICING

Having formed a syndicate to bid for an issue, the manager(s) then proceeds to determine what price should be bid. The usual pro-



cedure is to ask the members present at the syndicate price meeting. In many instances a single meeting is sufficient to reach agreement among the members as to the bid, but if the issue is large and/or complex, two or three meetings may be required. At the meeting the manager discusses the issue and any unusual problems involved and inquires as to the price ideas of each of the members—some of whom may be represented by proxies if unable to attend the meeting. Each member, of course, is free to express his ideas of offering price(s), profit margin, and bid price, and each is free to withdraw from the syndicate if he believes the price to be bid is higher than merited by his own appraisal of the issue, the demand therefor, and the condition of the market. To the extent that members withdraw, other members must be willing to increase their own participations in the syndicate so that at the time of bidding the issue is fully underwritten. Should it appear that the group lacks sufficient underwriting at a given price, the price will be lowered until agreement is reached that the best possible bid is obtained. Occasionally a minority in an underwriting participation may feel that a better bid should be made and this group may attempt to merge with the strong elements of another bidding group to form a new syndicate.

The procedure in pricing bonds is to determine the highest price at which a majority interest in the syndicate believes the bonds may be reoffered to investors. Having determined this price, the group then determines the spread or gross profit margin which they wish to work for. Deduction of the spread from the offering price results in the bid.

#### COMPENSATION FOR UNDERWRITING AND SELLING EFFORTS

The syndicate compensates the member who actually sells the bonds through a mechanism called the takedown concession. If it is assumed as a typical case that the gross spread expected by the syndicate is \$10 per \$1,000 bond, a portion of this amount will be considered as underwriting profit and a portion selling profit. Assuming an offering price of \$1,010 per bond, a bid of \$1,000 per bond, and a gross spread of \$10 per bond, \$5 of this spread may be determined as "selling compensation" or "takedown." The selling dealer, then, would withdraw bonds from the syndicate account at the offering price less the takedown or at \$1,005, and in selling the bond (at \$1,010) will be compensated to the extent of \$5 per bond. Of this amount, the syndicate member may reallocate a portion—say \$2.50 per bond—to other dealers who are not members of the syndicate but who, nevertheless, may wish to sell bonds to their own investor clients. In this event the syndicate member would sell the bond to the nonmember at \$1,007.50 retaining \$2.50 as his selling compensation, and the nonmember would earn \$2.50 upon selling the bond to his client at \$1,010.

After all of the bonds have been withdrawn (or "taken down") by syndicate members or otherwise sold by the manager for the benefit of the syndicate, there remains in the syndicate the difference between the gross spread and the takedown. This amount, less syndicate expenses, is distributed by the manager to the various syndicate members in proportion to their participations in the account as underwriting compensation. (Of course, if the syndicate operation results in a loss,

each participant is assessed in proportion to his participation for such loss.)

### THE STRUCTURE OF THE INVESTMENT BANKING INDUSTRY FOR MUNICIPAL BONDS

The municipal underwriting industry consists, for the most part, of elements of municipal bond departments (the departments performing other related functions) which are themselves part of an organization which operates in other securities or money markets. Because of the interrelation of these areas, single operations (such as municipal bond underwriting) are rarely considered alone. It is necessary, therefore, to consider entire securities firms which coincide more realistically with the actual operations. Thus, this section describes the industry in terms of: (1) the number of municipal bond dealers, (2) personnel within the securities industry, (3) the membership in the Investment Bankers Association, and (4) the managing underwriters of new municipal issues.

#### MUNICIPAL BOND DEALERS

The "Directory of Municipal Bond Dealers of the United States"<sup>4</sup> provides a good measure of the number of firms that actively participate in the underwriting and distribution of new and outstanding municipal bonds. A compilation of the number of main and branch offices has been made from the 1965 midyear edition of this directory, and the results are presented in table 1. Few branch offices of commercial banks are listed, and this understates the municipal bond activity conducted by such branches.

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<sup>4</sup> Published 3 times a year by the Bond Buyer, New York City.

TABLE 1.—Main and branch offices of municipal securities dealers: 1965

[By type dealer and geographic location]

State	Main		Branch	
	Dealers	Dealer banks	Dealers	Dealer banks
Alabama.....	17	7	13	
Alaska.....	6	1		
Arizona.....	6	3	7	
Arkansas.....	10	2	2	
California.....	29	12	83	1
Colorado.....	11	2	7	
Connecticut.....	7	2	33	
Delaware.....	4		1	
District of Columbia.....	7		7	
Florida.....	24	4	46	
Georgia.....	16	3	14	
Idaho.....			2	
Illinois.....	55	7	55	
Indiana.....	5	2	7	
Iowa.....	14	1	5	
Kansas.....	9	1	3	
Kentucky.....	15		2	
Louisiana.....	15	3	19	
Maine.....	1		8	
Maryland.....	7	1	11	
Massachusetts.....	22	5	56	
Michigan.....	13	2	47	
Minnesota.....	15	5	23	
Mississippi.....	13	1	11	
Missouri.....	25	5	25	1
Montana.....			6	
Nebraska.....	6		9	
Nevada.....			3	
New Hampshire.....			3	
New Jersey.....	22	4	20	
New Mexico.....	3		5	
New York.....	185	9	64	6
North Carolina.....	13	3	13	
North Dakota.....	1		6	
Ohio.....	44	3	38	
Oklahoma.....	7	3	4	
Oregon.....	2	1	7	1
Pennsylvania.....	61	3	88	
Rhode Island.....	1	1	8	
South Carolina.....	8	1	6	
South Dakota.....	1		4	
Tennessee.....	24	4	13	
Texas.....	47	8	67	
Utah.....	4	3	4	
Vermont.....			1	
Virginia.....	17	1	7	
Washington.....	16	7	12	
West Virginia.....	2		7	
Wisconsin.....	5	2	11	
Wyoming.....		1	2	
Total.....	809	123	895	9

Source: "Directory of Municipal Bond Dealers of the United States," 1965 midyear edition, the Bond Buyer, New York City.

The table shows that a main office of a municipal securities dealer is present in all but 5 of the 50 States; 35 of the States have 7 or more main offices of dealers. A total of 932 main offices existed in 1965.

A listing of branch offices has been included to present a more accurate picture of the municipal underwriting capability by individual State. Branch offices allow many dealers to effectively operate on a national or at least an interstate basis. Thus, active municipal securities dealers are present in all States, with 39 States having 10 or more offices.

## PERSONNEL WITHIN THE SECURITIES INDUSTRY

With the exception of a very few specialists, personnel engaged in the securities business are involved in nearly all types of negotiable securities. The most up-to-date and complete survey of the number of securities representatives was published by the Midwest Stock Exchange.<sup>5</sup> Table 2 is reproduced in part from this newsletter and presents a tabulation of the number of registered representatives, or salesmen, by State. In 1966 the total number of registered representatives is 177,000 which is 49 percent above the level of 1960.<sup>6</sup>

Although the number of representatives is most directly related to transactions in outstanding corporate securities, this measure provides some information on the size of the industry and the ability to attract personnel to distribute the increasing volume of securities of all types.

TABLE 2.—*Securities salesmen by State*<sup>1</sup>

<i>State</i>	<i>Number of salesmen</i>	<i>State</i>	<i>Number of salesmen</i>
Alabama	<sup>2</sup> 1,050	Nebraska	1,167
Alaska	140	Nevada	<sup>2</sup> 176
Arizona	<sup>3</sup> 2,584	New Hampshire	525
Arkansas	724	New Jersey	15,675
California	<sup>2</sup> 14,447	New Mexico	448
Colorado	<sup>2</sup> 2,037	New York	<sup>2</sup> 60,000
Connecticut	3,408	North Carolina	1,462
Delaware	<sup>3</sup> 473	North Dakota	410
District of Columbia	<sup>3</sup> 773	Ohio	4,430
Florida	<sup>2</sup> 4,025	Oklahoma	<sup>2</sup> 1,600
Georgia	<sup>2</sup> 1,500	Oregon	1,171
Hawaii	972	Pennsylvania	7,599
Idaho	420	Rhode Island	814
Illinois	5,800	South Carolina	<sup>2</sup> 650
Indiana	<sup>2</sup> 2,750	South Dakota	574
Iowa	<sup>2</sup> 3,000	Tennessee	<sup>2</sup> 1,012
Kansas	1,580	Texas	3,178
Kentucky	1,159	Utah	860
Louisiana	1,608	Vermont	395
Maine	<sup>2</sup> 600	Virginia	2,509
Maryland	<sup>2</sup> 2,550	Washington	<sup>2</sup> 2,400
Massachusetts	4,828	West Virginia	687
Michigan	2,617	Wisconsin	2,049
Minnesota	2,084	Wyoming	453
Mississippi	<sup>2</sup> 577		
Missouri	<sup>2</sup> 4,500	Total number of salesmen	177,027
Montana	<sup>2</sup> 597		

<sup>1</sup> Source: Midwest Stock Exchange News, vol. II, No. 2, September 1966.

<sup>2</sup> Estimate by State commissioner.

<sup>3</sup> News estimate.

<sup>5</sup> Midwest Stock Exchange News, vol. II, No. 2, September 1966.

<sup>6</sup> Ibid.

The IBA is an association which represents, primarily, the underwriting element of the securities industry. An examination of the membership of the Investment Bankers Association of America with respect to admissions of new members and losses through dissolutions, consolidations, and mergers provide some indication of mobility into and out of the industry. Table 3 is a tabulation of this information for the association accounting years<sup>7</sup> of 1957 through 1965. The column of the table listing mergers is self-explanatory with the majority of mergers occurring between investment bankers. The column listing dissolved firms consists primarily of firms which ceased to exist. Some firms still operate, but not as investment bankers. Additions of new firms represent, in the majority of cases, relatively new firms to the investment banking industry either through the addition of underwriting functions by existing securities dealers or through creation of new firms.

## MEMBERSHIP IN THE INVESTMENT BANKERS ASSOCIATION

TABLE 3.—Changes in the number of members of the Investment Bankers Association resulting from mergers, consolidations, dissolutions, and additions of firms

Year	Consolidation or merger of existing members	Dissolution of member firm	Addition of new firms
1957	-12	-16	25
1958	-2	-17	18
1959	-7	-11	22
1960	-7	-18	20
1961	-14	-11	20
1962	-6	-12	22
1963	-24	-14	9
1964	-15	-10	19
1965	-13	-12	16
Total	-100	-121	171

Source: Investment Bankers Association of America.

NOTE.—Membership in the IBA was 732 at the end of the 1965 association year.

Except for the year 1959 and 1962, the number of firms within the industry<sup>8</sup> has constantly declined accompanied by a continuous inflow and outflow of firms. Although the figures given are for all types of investment banking firms, including some who do not engage in the municipal business, the tabulation gives a general picture of developments in the investment banking industry which is applicable to the municipal sector as well.

## MANAGING UNDERWRITERS OF NEW ISSUES

The Bond Buyer's Directory<sup>9</sup> for mid 1965 lists over nine hundred active municipal bond dealers. Virtually all of these dealers underwrite bonds at some time or another but unfortunately no record of this activity exists. The Investment Bankers Association does, how-

<sup>7</sup> The association figures are for years ending approximately the first of each December.

<sup>8</sup> As measured by Investment Bankers Association of America membership.

<sup>9</sup> See footnote 4.

ever, collect and maintain data on managing underwriters<sup>10</sup> of new issues. As a measure of the number of firms underwriting new issues, these data are an understatement in view of the many firms that frequently underwrite but never manage. From the IBA files for 1965, a compilation was made of the number and identity of managing underwriters for that year. Table 4 is a tabulation of managing underwriters in 1965 by type of dealer and geographic location. The 388 managing underwriters listed for that year<sup>11</sup> in the IBA files were distributed among 40 States and Puerto Rico.

Firms which do not underwrite periodically are not identified by code number in the IBA data and are thus not included with tabulations based on the 388 underwriters which were coded.

TABLE 4.—*Managing underwriters<sup>1</sup> by type dealer and geographic location, 1965*

State	Number of dealers		State	Number of dealers	
	Dealer banks	Dealers		Dealer banks	Dealers
Alabama.....	1	8	New Jersey.....	6	3
Arizona.....	3	1	New Mexico.....		1
Arkansas.....		4	New York.....	13	54
California.....	7	12	North Carolina.....	4	6
Colorado.....		3	North Dakota.....	1	
Connecticut.....	1	1	Ohio.....	1	20
Florida.....	1	4	Oklahoma.....	2	5
Georgia.....	1	7	Oregon.....	1	
Illinois.....	4	20	Pennsylvania.....	4	17
Indiana.....	1	3	Puerto Rico.....	1	1
Iowa.....	3	5	Rhode Island.....	1	
Kansas.....	1	4	South Carolina.....		2
Kentucky.....		6	Tennessee.....	3	8
Louisiana.....	2	9	Texas.....	6	26
Maryland.....		4	Utah.....	1	
Massachusetts.....	4	5	Virginia.....		6
Michigan.....	2	5	Washington.....	5	7
Minnesota.....	4	7	West Virginia.....		1
Mississippi.....	1	10	Wisconsin.....	2	4
Missouri.....	5	14			
Nebraska.....		2	Total.....	93	295
Nevada.....	1				

<sup>1</sup> Based on all managing underwriters of new issues in 1965 about which the Investment Bankers Association had knowledge.

Source: Investment Bankers Association of America.

Table 5 lists the number of managing underwriters by type of security underwritten and type of dealer. Of the 93 managing dealer banks in 1965, 79 managed only general obligation issues, no banks managed only revenue issues, and 14 managed both general obligation and revenue issues.<sup>12</sup> Of the 295 dealers listed, 196 managed only general obligation issues, 43 managed only revenue issues, and 146 managed both general obligation and revenue issues.

<sup>10</sup> The classification "managing underwriters" in the IBA statistics includes those dealers who underwrite the entire issue themselves, or who coordinate the activities of a syndicate (in which case comanagers may exist). The duties of the manager are many and varied but include bookkeeping, preparation of advertising, preparation of bids, polling members to obtain a syndicate bid, etc.

<sup>11</sup> During the 10-year period that data have been maintained by the IBA, more than 1,200 firms have at some time or another been the syndicate manager or sole underwriter of a municipal bonds issue.

<sup>12</sup> Federal banking laws limit banks in their underwriting of "municipal" bonds to "general obligations" of a State or of any political subdivision thereof (12 U.S.C.A. 24). The term "general obligation" has been variously interpreted by the banking authorities. Thus, some banks have underwritten bonds which are classified "general obligations" by their appropriate authority but which are classified as "revenue" bonds by the definition employed in this chapter.

Chart I is a distribution of the number of managing underwriters for 1965 by the number of issues managed. The majority of firms managed fewer than 25 issues, with nearly half of the firms managing fewer than 5 issues.

It was possible to obtain net worth data for 157 of the 295 dealers, who were managing underwriters, from Finance magazine.<sup>13</sup> One hundred and thirty-eight dealers who managed issues in 1965 are not listed in the survey conducted by Finance magazine either because they did not respond to the survey, or because their net worth was less than \$100,000. Chart II presents the results of this tabulation and itself encompasses a wide range of capitalization, from the smallest firm at \$100,000 to the largest firm with a net worth of over \$133 million. Nearly 40 percent of the firms reported net worth of from \$1 to \$5 million.

As a measure of change within the industry, a similar tabulation was made for 1957. Of the 413 managing underwriters, 148 were listed in Finance's survey for that year. Chart III is a distribution of this tabulation. Only about 30 percent of the firms reported net worth of \$1 to \$5 million. The overall level of capitalization was definitely lower with over three times as many firms in the smallest category and less than one-third as many firms in the largest category. Although even the largest firms in the investment banking industry are not particularly large when compared with large firms of other industries, the two charts indicate that the industry has been able to attract over the past decade the capital needed to meet the needs of an ever increasing volume of business. This is particularly noteworthy in view of the sharp decline of profit margins from 1958 to 1965 (see next section).

TABLE 5.—Managing underwriters<sup>1</sup> by type dealer and issues underwritten

Type dealer	Type issue			
	General obligation	Revenue	General obligation and revenue	Total
Dealer banks.....	79	.....	214	93
Dealers.....	106	43	146	295
Total.....	185	43	160	388

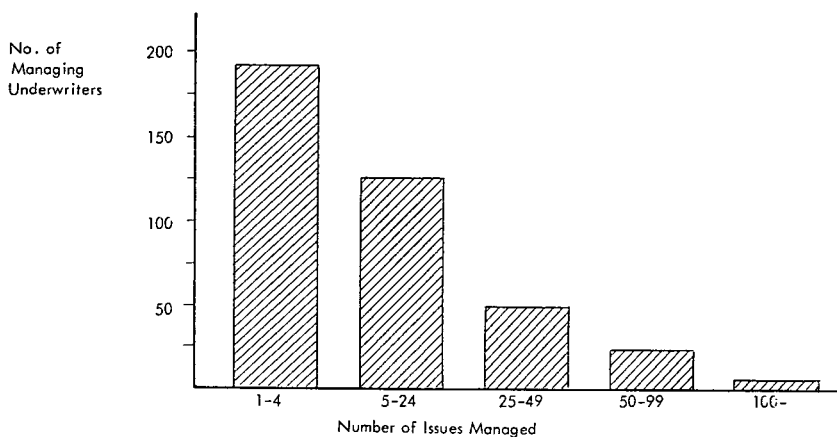
<sup>1</sup> Based on all managing underwriters of new issues in 1965 about which the Investment Bankers Association had knowledge.

<sup>2</sup> See footnote 12, of text.

Source: Investment Bankers Association of America and Finance magazine, March 1966.

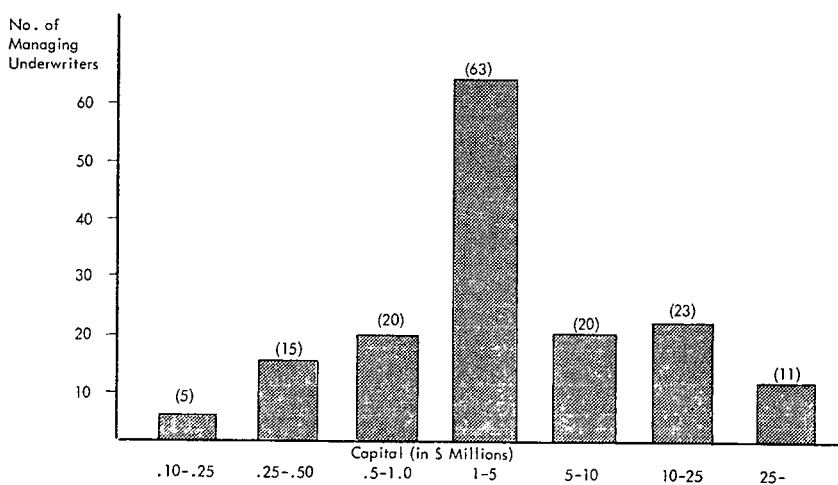
<sup>13</sup> Finance magazine, March 1966, which reports the results of a survey of firms reporting \$100,000 or more of net capital. Commercial banks are not included. The capital figures apply to the entire reporting organization and do not represent the capital available for underwriting (a figure which is unobtainable).

CHART I

DISTRIBUTION OF MANAGING UNDERWRITERS  
BY NUMBER OF ISSUES MANAGED, 1965

Source: Investment Bankers Association of America.

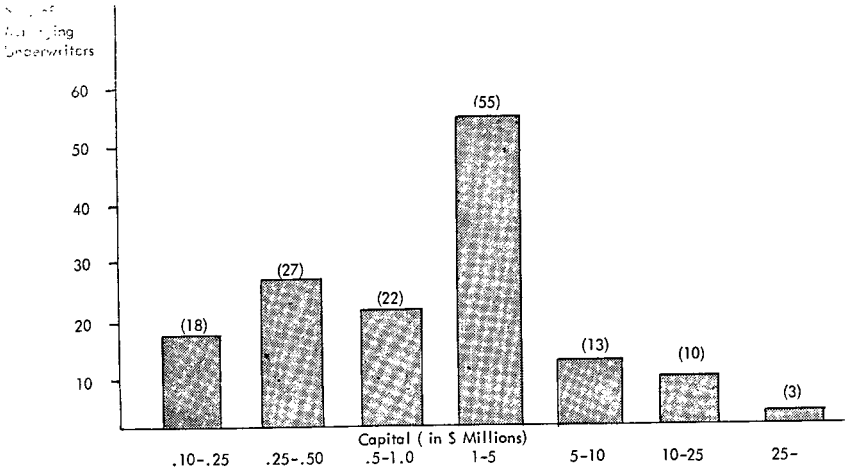
CHART II

DISTRIBUTION OF NON-BANK MANAGING UNDERWRITERS<sup>1</sup>  
BY CAPITALIZATION, 1965Sources: Investment Bankers Association of America and Finance magazine, March, 1966.

1. Based on all managing underwriters of new issues in 1965 about which the Investment Bankers Association of America has knowledge and for which net worth figures were published in Finance magazine.



CHART III

DISTRIBUTION OF NON-BANK MANAGING UNDERWRITERS<sup>1</sup>  
BY CAPITALIZATION, 1957

Sources: Investment Bankers Association of America and *Finance* magazine, March, 1958.

1. Based on all managing underwriters of new issues in 1957 about which the Investment Bankers Association of America has knowledge and for which net worth figures were published in *Finance* magazine.

## THE MUNICIPAL BOND MARKET

This section focuses on those aspects of the bond market that reflect directly the underwriting process. As such, the examination is concerned with underwriter<sup>14</sup> specialization and method of purchasing bonds (by competitive bidding or negotiation), the extensiveness of competitive bidding, and the spread (gross fee) received by the underwriter for his services. The statistics used are taken from the data file maintained by the IBA and cover the period 1957 through 1965. Statistical information is available on spreads only for the years 1958, 1959, 1963, 1964, and 1965.

*Underwriting management.*—Due to legal requirements and the demands of the market, specialization has developed among the underwriters of municipal bonds. This specialization, to a limited extent, is investigated by separating underwriters into four groups: (1) Leading dealers, or those 10 dealers who managed the largest dollar volume—among dealers—of bonds in a given year (this group varied from year to year); (2) remaining dealers; (3) leading banks, or those 10 dealer banks who managed the largest dollar volume—among banks—of bonds in a given year (this group also varied from year to year); and (4) remaining banks. Additionally, the bonds underwritten by each type of dealer are separated by type of issue (general obligation and revenue) and offering (negotiated or competitive bidding).

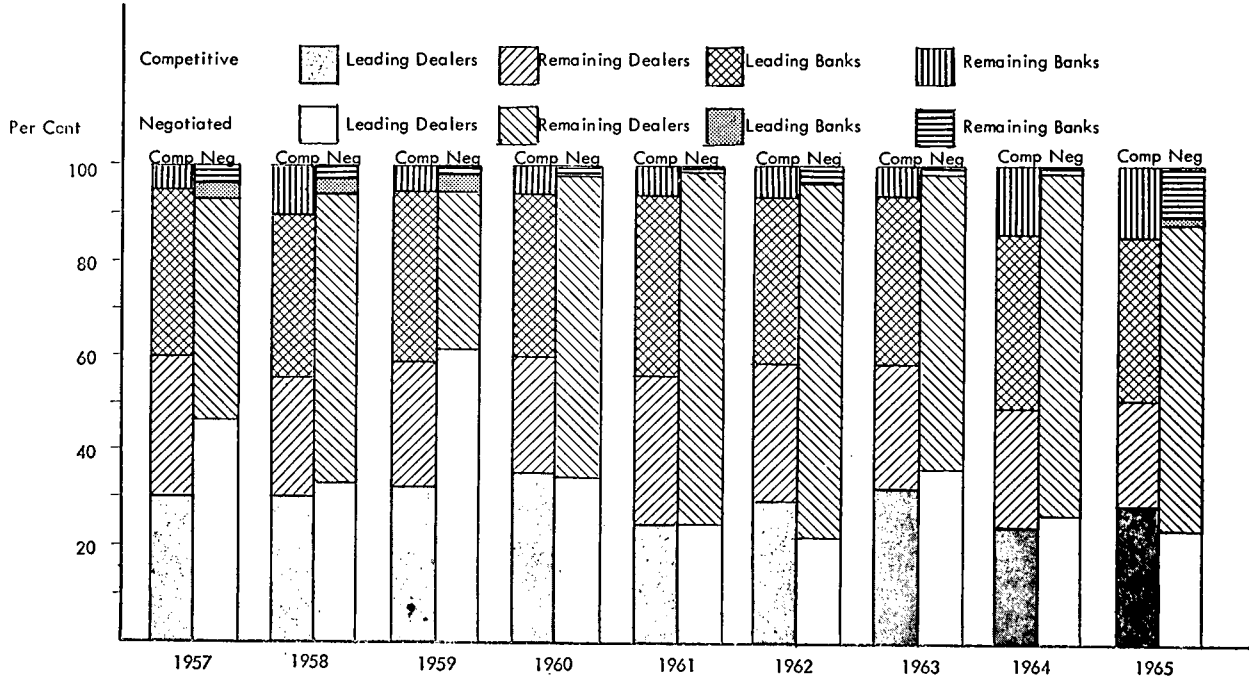
<sup>14</sup> Again, for lack of underwriting participation data, underwriting management figures are used.

The data in this section are taken from the underwriting management file maintained by the IBA.<sup>15</sup> In this file, dealers who are sole underwriters of an issue or managers of a syndicate are credited with the entire dollar amount of the issue. For co-managers, the amount of the issue is equally divided among the co-managers and each is credited with one issue. Due to incomplete information, some records were not used. Additionally, a few new issues of municipal bonds are not underwritten and thus are not included in the compilations. These two factors account for the difference in yearly totals when compared with the data in chapter 1.

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<sup>15</sup> The tabulations used as basic information are contained in the appendix.

CHART IV  
 PERCENTAGE DISTRIBUTION OF THE VALUE OF UNDERWRITTEN ISSUES  
 By Type Underwriter and Offering  
 All Bonds, 1957-1965



Source: Investment Bankers Association of America.

Chart IV is the percentage distribution of the dollar value of all bonds by type underwriter (dealers or dealer banks) and offering (competitive or negotiated). The left bar for each year is a distribution of competitively offered issues and the right bar is a distribution of negotiated issues.

Management of competitively bid bonds is equally divided (not by design, of course) between banks and dealers. Banks other than the 10 leading banks have grown in importance as underwriting managers of competitive issues. All dealers, as a group, have declined in this area. These relationships do not hold true for negotiated issues, however (the large increase for remaining banks in 1965 is not statistically significant). With the exception of 1965, dealers managed more than 90 percent of these issues. From 1957 through 1965, leading dealers declined in importance as the remaining dealers managed more of this form of financing.

Chart V compares the same characteristics but is measured by number of issues instead of dollar volume. The share of the market managed by other (remaining) banks of competitive issues has markedly increased during the past decade offset by a decline in management by other dealers. A comparison with chart IV shows that while leading dealers and banks manage much less than half of the competitively offered bonds, their percentage of the dollar volume is much larger. Thus, leading dealers and banks on the average manage larger issues than those issues managed by other dealers and banks.<sup>16</sup>

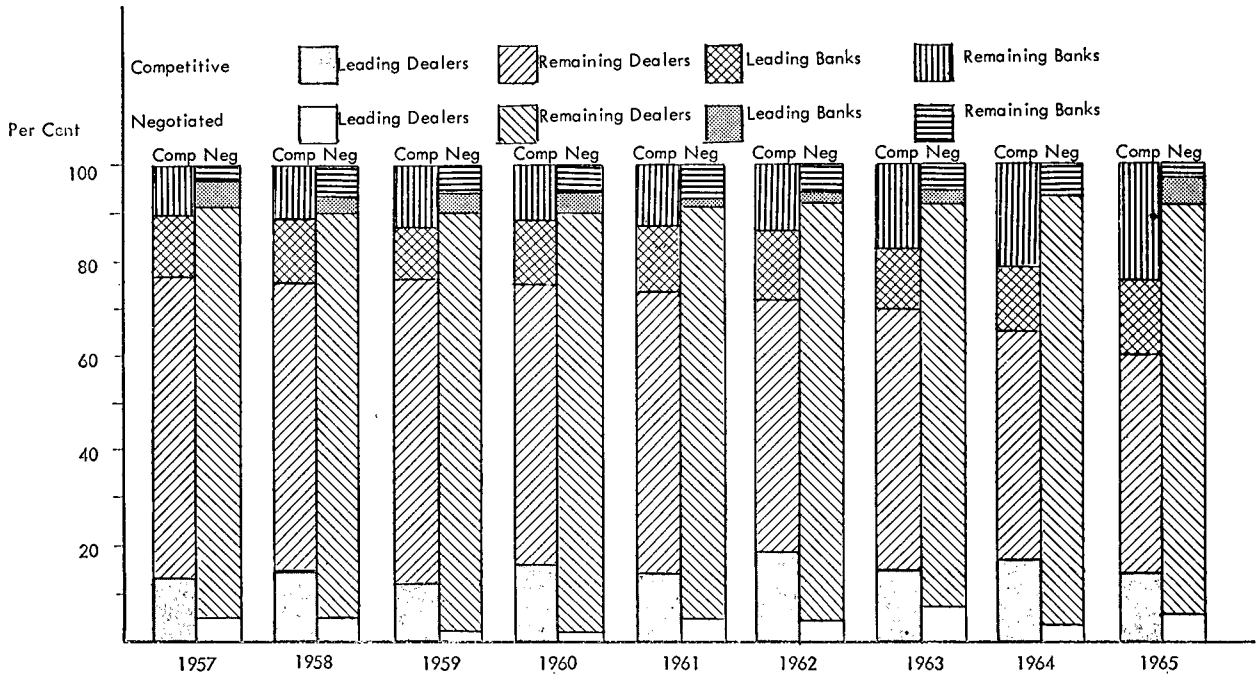
Other dealers have consistently managed a large majority of negotiated issues.

Chart VI examines the distribution of the dollar volume of general obligation bonds. A similar relationship exists for competitively bid issues of general obligation bonds as did for competitively bid issues of all bonds (chart III). This was to be expected due to the dominant role played by general obligations in a total listing of competitive issues. The variability within negotiated issues results from the relatively small volume in this category (less than 5 percent of general obligations) and, therefore, the large influence of a change in the management of a few issues.

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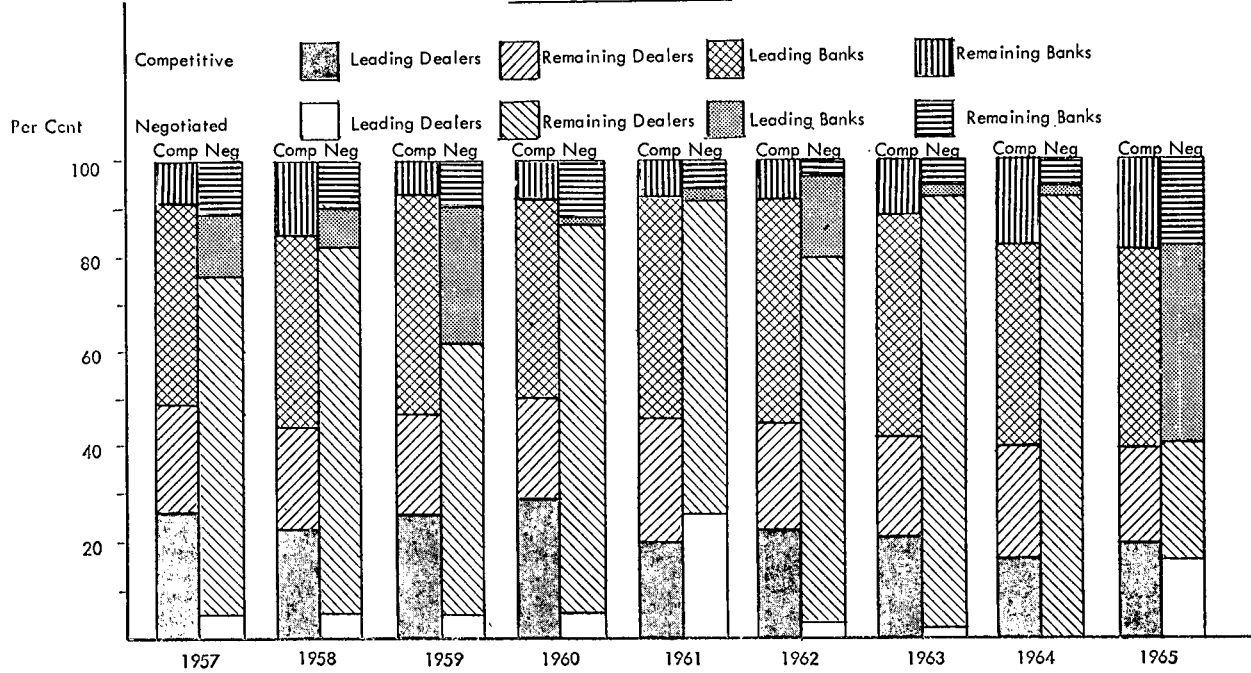
<sup>16</sup> Of course, they, as well as other underwriters, participate in many other issues both large and small in a capacity other than managerial.

CHART V  
 PERCENTAGE DISTRIBUTION OF THE NUMBER OF UNDERWRITTEN ISSUES  
 By Type Underwriter and Offering  
 All Bonds, 1957-1965



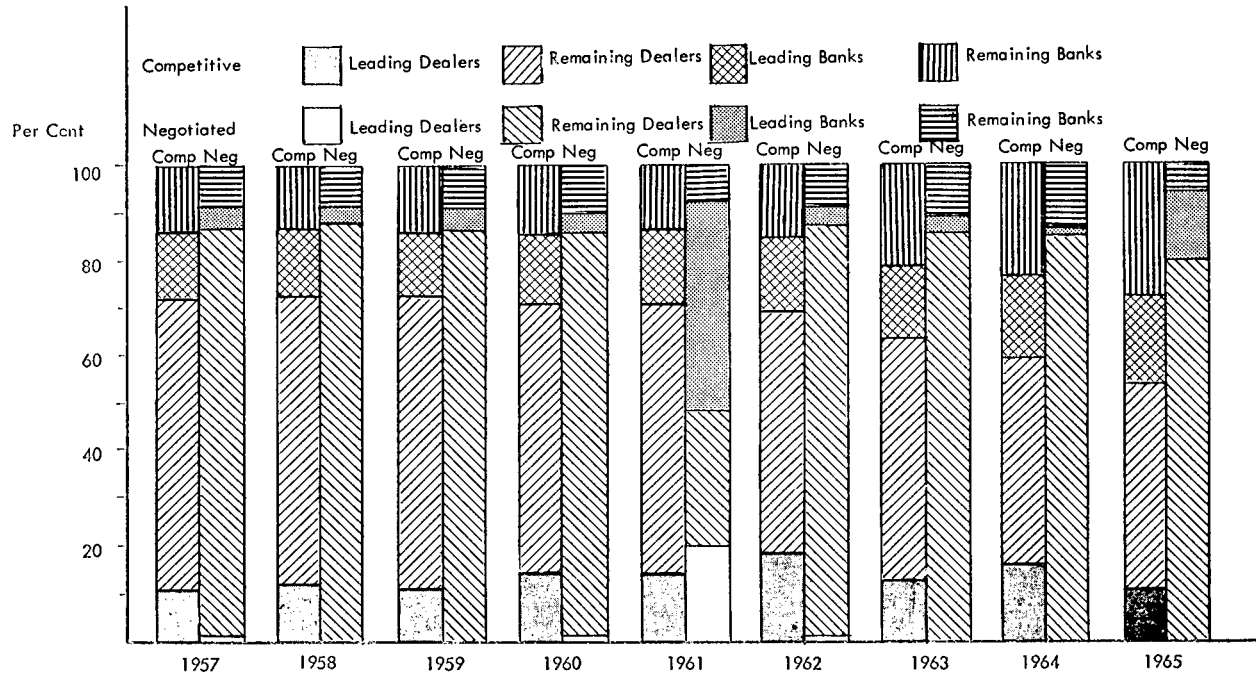
Source: Investment Bankers Association of America.

PERCENTAGE DISTRIBUTION OF THE VALUE OF UNDERWRITTEN ISSUES  
By Type Underwriter and Offering  
General Obligation Bonds, 1957-1965



Source: Investment Bankers Association of America.

CHART VII  
 PERCENTAGE DISTRIBUTION OF THE NUMBER OF UNDERWRITTEN ISSUES  
 By Type Underwriter and Offering  
 General Obligation Bonds, 1957-1965



Source: Investment Bankers Association of America.

Chart VII measures the management of the number of issues of general obligation bonds rather than the dollar volume. It reflects the same pattern as chart V (all bonds) with respect to competitive issues. Minor changes in the distribution of negotiated issues are not significant.

With the exception of a few issues, banks are not permitted to underwrite bonds classified in this chapter as revenue bonds (see footnote 12). Leading dealers have managed 50-60 percent of the dollar volume of competitively offered revenue issues with little change over the years (chart VIII). With respect to negotiated issues, however, the share of this group has declined noticeably.

As with negotiated issues of all bonds, other dealers manage the great majority of the issues of negotiated revenue bonds, averaging nearly 90 percent (chart IX). Again, on the average, leading dealers manage issues which are large relative to those managed by other dealers.

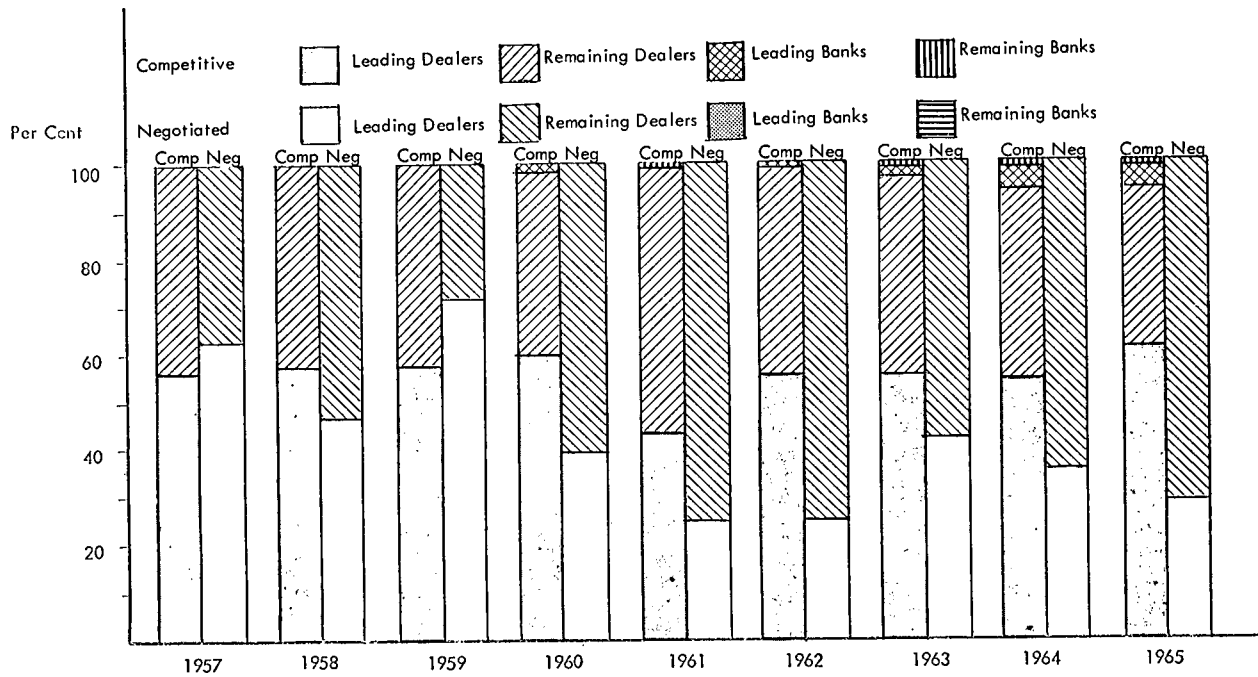
*Competitive bidding.*—Chapter 1 presented detailed information on the method of sale of new issues of municipal bonds. This information showed that competitive bidding accounts for about 95 percent of the dollar value of general obligation bonds and over 60 percent of revenue bonds sold. Overall, about 85 percent of new issues are sold through competitive bidding.

Table 6 is a tabulation of the average number of competitive bids per bond issues, based on available data maintained by the IBA. The information is grouped by dollar size of issue and covers the years 1957 through 1965. Much of the IBA data represents at least one less than the minimum number of bids.<sup>17</sup> As a result, the averages in the table are known to be too small. Because of the nature of data collection, the understatement should be greatest in those categories containing the greatest number of bids. One additional bias in the data concerns the number of issues. Due to data recording and processing procedures, a duplication in the number of issues appears to a limited extent in all categories, but more for the larger issues. There is no reason to believe that this affects the average number of bids, however.

<sup>17</sup> In recording the number of competitive bids, only the known bidders are utilized. Frequently it is known that there was at least one (usually more) additional bidder. Rather than estimate the additional number of bidders, only the known number is recorded.

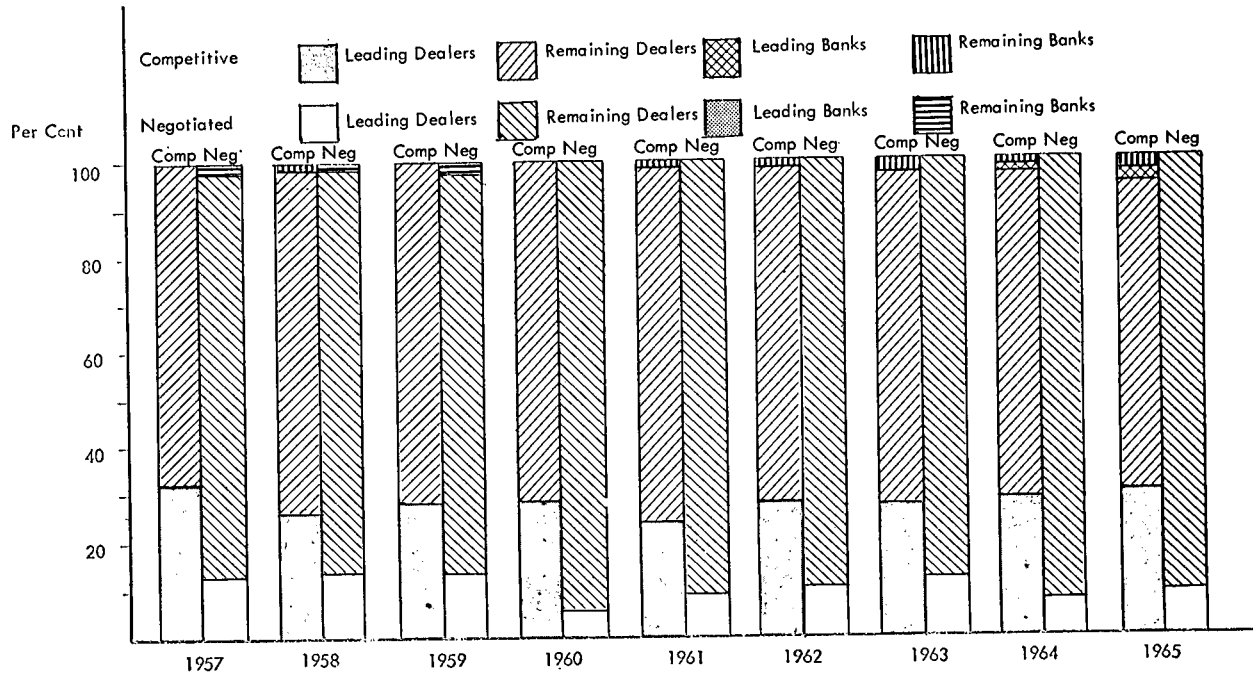


CHART VIII  
 PERCENTAGE DISTRIBUTION OF THE VALUE OF UNDERWRITTEN ISSUES  
 By Type Underwriter and Offering  
 Revenue Bonds, 1957-1965



Source: Investment Bankers Association of America.

CHART IX  
 PERCENTAGE DISTRIBUTION OF THE NUMBER OF UNDERWRITTEN ISSUES  
 By Type Underwriter and Offering  
 Revenue Bonds, 1957-1965



Source: Investment Bankers Association of America.

TABLE 5.—Average number of bids<sup>1</sup> for competitively offered issues: By size of issue, 1957-65

	Size of issue <sup>2</sup> (dollar amounts in millions)				
	0 to \$0.25	\$0.25 to \$0.50	\$0.5 to \$1	\$1 to \$5	\$5 and over
Year:					
1957.....	1.87 (1,571)	2.12 (670)	2.47 (551)	3.85 (756)	3.01 (306)
1958.....	2.26 (1,697)	2.68 (672)	3.36 (613)	4.29 (831)	2.76 (381)
1959.....	2.58 (1,566)	3.19 (608)	3.79 (619)	4.90 (844)	3.27 (251)
1960.....	2.56 (1,372)	3.52 (642)	3.89 (651)	5.07 (946)	3.50 (234)
1961.....	2.30 (1,295)	3.12 (678)	3.74 (659)	4.53 (1,321)	3.32 (425)
1962.....	2.45 (1,159)	3.22 (644)	3.67 (768)	5.08 (1,432)	3.92 (444)
1963.....	2.64 (1,121)	3.41 (663)	4.19 (664)	5.82 (1,144)	4.20 (493)
1964.....	3.13 (1,395)	4.21 (805)	4.44 (1,049)	5.60 (1,757)	5.87 (1,003)
1965.....	3.06 (1,262)	3.92 (794)	4.40 (820)	6.27 (1,981)	4.97 (1,024)

<sup>1</sup> Represents number of known bids. Actual number of bids higher but by an undeterminable amount.

<sup>2</sup> Number of issues in sample shown in parentheses.

Source: Investment Bankers Association of America.

Two prominent relationships relating to the number of competitive bids are demonstrated in table 5. First, the average number of bids increases as the size of the issue increases up to \$5 million but decreases for the category \$5 million or more. In all but one instance (1964 issues of \$5 million or more) this relationship has held for all categories. Secondly, a pronounced trend of increasing number of bids exists for all categories over the past 9 years. For all categories, the average number of competitive bids was at least 50 percent higher in 1965 than 1957.

*Underwriting spreads.*—Underwriting spread is the difference (per \$1,000 value of bonds) between the underwriter's purchase price and the price at which he offers these bonds for sale. It is an average for all of the bonds included in the issue, and will vary depending on the rating, average maturity, and other factors of the issue. For competitively purchased issues, it is the return to the underwriter for risk, distribution, and overhead expenses associated with bidding. For negotiated issues, it also includes a return for financial services required to organize and plan the issue (when such services are required for a competitively sold issue, this cost is borne separately by the issuer.)

Spread represents the anticipated gross return to the underwriter if all bonds are sold at the syndicate's agreed upon price level. In a favorable market all bonds are quickly sold and spread equals gross profit. In an unfavorable market it may be necessary for the syndicate to lower prices. In such a situation the hoped for spread will not be realized. Because of this "one way" (downward) price adjusting process, spreads tend to overstate gross profits.

Table 6 presents the average spread for the years 1958, 1959, 1963, 1964, and 1965 grouped by size of issue. The number of issues used to calculate the average spread is included in parentheses. The sample for the years 1958 and 1959 is particularly small but has been included to provide information on the long-run trend in spreads.<sup>18</sup>

<sup>18</sup> Because different methods were used to record data for these two periods (1958 and 1959 versus 1963 through 1965) minor differences in the data may exist.

TABLE 6.—Average spread<sup>1</sup> for underwritten issues: By size of issue, 1958-59, 1963-65

Year:	Size of issue <sup>2</sup> (dollar amounts in millions)				
	0 to \$0.25	\$0.25 to \$0.50	\$0.5 to \$1.0	\$1.0 to \$5.0	\$5.0 and over
1958.....	\$24.56 (70)	\$17.31 (47)	\$15.68 (41)	\$16.25 (94)	\$13.99 (113)
1959.....	22.29 (61)	19.50 (31)	22.90 (40)	16.61 (85)	17.98 (47)
1963.....	12.46 (307)	11.80 (248)	11.84 (292)	11.62 (482)	10.46 (103)
1964.....	12.33 (325)	11.99 (297)	11.05 (361)	11.31 (595)	10.07 (120)
1965.....	11.60 (272)	11.82 (260)	11.70 (298)	10.55 (580)	9.82 (118)

<sup>1</sup> On those issues for which data were available. See text for discussion of spread.

<sup>2</sup> Number of issues in sample shown in parentheses.

NOTE.—Spread is stated in dollars per \$1,000 of bonds.

Source: Investment Bankers Association of America.

The most noticeable relationship is the decrease in spread in all categories between the time periods 1958-59 and 1963-65. Even with the latter time period the trend remains downward. Thus, in 1958 a community borrowing \$250,000 to \$500,000 through the bond market would have paid the investment banker (on the average) \$4,327 to \$8,655 for his services. In 1965 these services would have cost \$2,955 to \$5,910.

A study conducted by the IBA in 1964<sup>19</sup> concluded that size was unimportant in determining spread. The fact that the larger issues are usually better rated accounts for much of the difference between large and small issues shown in table 6.

Spread is also the price paid by the issuer for underwriting services. Viewed from this perspective, the cost of these services to the issuer declined 30 to 40 percent from 1958 to 1965.

<sup>19</sup> IBA Statistical Bulletin, occasional paper No. 7, June 1964.

EXHIBIT 1

Typical Syndicate Agreement For an Undivided Account

GENTLEMEN:

We confirm the formation of an Account to bid for, and if such bid is accepted, to sell the above bonds subject to the following terms and conditions:

The present members of the Account, including yourselves, and their respective participations are set forth on the reverse hereof; but the Managers may, at any time prior to the submission of the bid, make any change in the membership of the Account or in the amounts of respective participations, and any such change will become effective notwithstanding that notice thereof may not be received by any member or members; provided, that the participation of a member shall not be increased without his consent. Your participation is for your own account and is not to be reoffered, subdivided, or transferred without the consent of the Managers. Each member hereby authorizes the Managers to bid any amount up to and including such member's maximum bid price, for the joint and/or several accounts of the members.

Should this Account be the successful bidder for the bonds, sales for the Account shall be made only by or through the Managers. Subject to confirmation by the Managers, members may purchase bonds from the Account at the terms fixed as hereinafter provided but any resales of bonds so purchased by a member shall be solely for his own account and not as agent for the Managers or for the Account. All sales of bonds shall reduce the liability of the members for any bonds remaining in the Account at its termination, proportionately to their participations in the Account. The terms of the offering, including concessions or commissions allowable to members and to others, shall be determined by the Managers with the consent of the members having a majority interest in the Account. Each member will be advised of such terms and of any changes therein and each member agrees to comply with the terms from time to time in effect during the life of the Account.

The undersigned will act as Account Managers, with the customary authority and discretion, including the right to represent the Account in bidding for the bonds, either directly or through a delegated agent. The Managers may require of the members prior to bidding or thereafter their proportionate shares of the good faith deposit and the Managers are authorized, on behalf of each member and either separately in his name or as part of like arrangements for other members, in the Account name or otherwise, without notice and upon such terms as the Managers deem appropriate, to borrow money and/or effect other arrangements, in order to pay for or carry such member's share of the bonds and to pay or provide for his share of any losses and expenses of the Account, and also to pledge any of the bonds as security and to sign any notes or loan agreements. Each member for whose account such loan or other arrangements are made shall, without the necessity of any determination, call or accounting by the Managers, be unconditionally obligated thereon directly to the lender for the full amount of liability incurred for his account and no more. At any time during the life of this Account the Managers may call upon each member to carry his proportionate share of any unsold or undelivered bonds or to margin his liability at a price and in the amount and manner as the Managers may determine. Upon termination of the Account the Managers may require the members to take up and pay for their proportionate shares of any remaining bonds at the net cost thereof to the Account. The net profits of the Account or the liability for any net losses shall be divided among the members in proportion to their participations in the Account, regardless of any purchases from the Account made by them.

If any member fails to perform in accordance with the terms of this agreement the Managers may, without legal proceedings, demand or notice, terminate or transfer to others his interest in the Account and, in the event of termination, sell, at public or private sale and upon such terms as the Managers shall elect, all or a part of the defaulting member's proportionate share of the bonds in this Account, the Managers on behalf of the Account and each member reserving the right to be a purchaser at any such sale; but such action on the part of the Managers shall not release any other member from obligations hereunder, and the defaulting member shall continue liable for his default and for his other liabilities hereunder. Any loss or expense resulting from any such default shall be charged to the Account and shall be borne by the remaining members in proportion to their respective participations, being collectible therefrom by the Managers at any time after the occurrence of such default, without the prior necessity of legal proceedings against the defaulting member.

The Account shall run for \_\_\_\_\_ days from the date the bonds are awarded to it, unless extended by mutual consent or terminated prior thereto by the Managers with the consent of the members having a majority interest in the Account; provided, however, that the members shall remain liable for their proportionate shares of any bonds sold for the Account until delivery thereof out of the Account by the Managers; provided, however, that the Managers alone may terminate the Account at any time after sale and delivery of all the bonds or extend the Account beyond the fixed or agreed date of termination to permit the delivery of bonds sold prior thereto. Notwithstanding any termination or settlement of this Account the members will be and remain liable in proportion to their respective participations for any further liabilities and expenses including any taxes which may from time to time be assessed against the Account as such.

The Managers may publish advertisements for the bonds with the names of any or all members of the Account, unless expressly requested by a member to omit his name. The Managers act hereunder solely as agent for the members and shall be under no liability with respect to the validity or value of the bonds or the correctness or completeness of anything contained therein or in any advertisement, prospectus or any other document prepared or used by the Managers, or for the acts of any agent selected with due care, or otherwise in connection herewith except for want of good faith. Members shall be liable for their proportionate shares of all expenses incurred in connection with this Account, provided that any member who withdraws from the Account prior to the submission of the bid shall be liable in the discretion of the Managers for his proportionate share of expenses incurred prior to the time of withdrawal. No member other than the Managers may incur any liability or expense for the Account without the consent of the Managers.

Please confirm your participation in and acceptance of the terms of this Account by signing and returning the enclosed duplicate of this letter to

Very truly yours,

Account Managers

We confirm our participation in this Account.

Name: .....

By: ..... Vice President

By: ..... Authorized Signature

Date: .....

## EXHIBIT 2.

Typical Syndicate Agreement For a Divided Account

## GENTLEMEN:

We confirm the formation of an Account to bid for, and if such bid is accepted, to sell the above bonds subject to the following terms and conditions:

The present members of the Account, including yourselves, and their respective participations are set forth on the reverse hereof; but the Managers may, at any time prior to the submission of the bid, make any change in the membership of the Account or in the amounts of respective participations, and any such change will become effective notwithstanding that notice thereof may not be received by any member or members; provided, that the participation of a member shall not be increased without his consent. Your participation is for your own account and is not to be reoffered, subdivided, or transferred without the consent of the Managers. Each member hereby authorizes the Managers to bid any amount up to and including such member's maximum bid price, for the joint and/or several accounts of the members.

Should this Account be the successful bidder for the bonds, sales for the Account shall be made only by or through the Manager. Subject to confirmation by the Managers, members may purchase bonds from the Account at the terms fixed as hereinafter provided but any sales of bonds so purchased by a member shall be solely for his own account and not as agent for the Managers or for the Account. Purchases of bonds from the Account by a member shall reduce such member's liability for any bonds remaining in the Account at its termination, to the extent of the bonds so purchased. All sales of bonds for Syndicate Account shall reduce the liability of the members for any bonds remaining in the Account at its termination, proportionately to their participation in the Account. On elimination of any member's liability by purchases and sales as above provided, any reduction of liability from the sale of bonds for Syndicate Account to which such member would otherwise have been entitled shall reduce the liability of other members, proportionately to their participations in the Account. The terms of the offering, including concessions or commissions allowable to members and to others, shall be determined by the Managers with the consent of the members having a majority interest in the Account and may be changed during the life of the Account only by unanimous consent. Each member will be advised of such terms and of any changes therein and each member agrees to comply with the terms from time to time in effect during the life of the Account.

The undersigned will act as Account Managers, with the customary authority and discretion, including the right to represent the Account in bidding for the bonds, either directly or through a delegated agent. The Managers may require of the members prior to bidding or thereafter their proportionate shares of the good faith deposit and the Managers are authorized, on behalf of each member and either separately in his name or as part of like arrangements for other members, in the Account name or otherwise, without notice and upon such terms as the Managers deem appropriate, to borrow money and/or effect other arrangements, in order to pay for or carry such member's share of the bonds and to pay or provide for his share of any losses and expenses of the Account, and also to pledge any of the bonds as security and to sign any notes or loan agreements. Each member for whose account such loan or other arrangements are made shall, without the necessity of any determination, call or accounting by the Managers, be unconditionally obligated thereon directly to the lender for the full amount of liability incurred for his account and no more. At any time during the life of this Account the Managers may call upon each member to carry his proportionate share of any unsold or undelivered bonds or to margin his liability at a price and in the amount and manner as the Managers may determine. Upon termination of the Account each member shall take up and pay for any remaining bonds representing his undischarged liability at the established terms of the Account. The net profits of the Account or the liability for any net losses shall be divided among the members in proportion to their participations in the Account.

If any member fails to perform in accordance with the terms of this agreement the Managers may, without legal proceedings, demand or notice, terminate or transfer to others his interest in the Account and, in the event of termination, sell, at public or private sale and upon such terms as the Managers shall elect, all or a part of the defaulting member's proportionate share of the bonds in this Account, the Managers on behalf of the Account and each member reserving the right to be a purchaser at any such sale; but such action on the part of the Managers shall not release any other member from obligations hereunder, and the defaulting member shall continue liable for his default and for his other liabilities hereunder. Any loss or expense resulting from any such default shall be charged to the Account and shall be borne by the remaining members in proportion to their respective participations, being collectible therefrom by the Managers at any time after the occurrence of such default, without the prior necessity of legal proceedings against the defaulting member.

The Account shall run for ..... days from the date the bonds are awarded to it, unless extended by mutual consent or terminated prior thereto by the Managers with the consent of the members having a majority interest in the Account; provided, however, that the members shall remain liable for their proportionate shares of any bonds sold for the Account until delivery thereof out of the Account by the Managers; provided, however, that the Managers alone may terminate the Account at any time after sale and delivery of all the bonds or extend the Account beyond the fixed or agreed date of termination to permit the delivery of bonds sold prior thereto. Notwithstanding any termination or settlement of this Account the members will be and remain liable in proportion to their respective participations for any further liabilities and expenses including any taxes which may from time to time be assessed against the Account as such.

The Managers may publish advertisements for the bonds with the names of any or all members of the Account, unless expressly requested by a member to omit his name. The Managers act hereunder solely as agent for the members and shall be under no liability with respect to the validity or value of the bonds or the correctness or completeness of anything contained therein or in any advertisement, prospectus or any other document prepared or used by the Managers, or for the acts of any agent selected with due care, or otherwise in connection herewith except for want of good faith. Members shall be liable for their proportionate shares of all expenses incurred in connection with this Account, provided that any member who withdraws from the Account prior to the submission of the bid shall be liable in the discretion of the Managers for his proportionate share of expenses incurred prior to the time of withdrawal. No member other than the Managers may incur any liability or expense for the Account without the consent of the Managers.

Please confirm your participation in and acceptance of the terms of this Account by signing and returning the enclosed duplicate of this letter to

Very truly yours,

We confirm our participation in this Account.

Account Managers

Name: .....

By: .....  
Authorized Signature

By: .....  
Vice-President

Date: .....

## APPENDIX

TABLE 1.—Distribution of underwritten issues: By type offering and dealer

[All bonds, 1957-65 (dollar amounts in millions)]

	Competitive		Negotiated		Total	
	Amount	Number	Amount	Number	Amount	Number
<b>1957:</b>						
Top 10 dealers <sup>1</sup> .....	\$1,446	632	\$367	41	\$1,813	673
All dealers.....	2,921	3,565	740	985	3,792	4,812
Top 10 banks <sup>1</sup> .....	1,711	611	27	37	1,738	648
All banks.....	2,029	1,139	53	102	2,082	1,241
Total.....	4,950	4,704	792	1,087	5,874	6,053
<b>1958:</b>						
Top 10 dealers <sup>1</sup> .....	1,935	689	206	45	2,141	734
All dealers.....	3,551	3,666	596	1,037	4,263	4,913
Top 10 banks <sup>1</sup> .....	2,186	653	17	46	2,203	699
All banks.....	2,959	1,218	37	113	2,999	1,333
Total.....	6,510	4,884	633	1,150	7,262	6,246
<b>1959:</b>						
Top 10 dealers <sup>1</sup> .....	1,910	585	803	21	2,714	607
All dealers.....	3,510	3,550	1,244	775	4,785	4,506
Top 10 banks <sup>1</sup> .....	2,188	524	57	27	2,245	551
All banks.....	2,503	1,132	82	89	2,590	1,225
Total.....	6,013	4,682	1,326	864	7,375	5,731
<b>1960:</b>						
Top 10 dealers <sup>1</sup> .....	2,120	779	331	17	2,451	796
All dealers.....	3,028	3,694	953	685	4,608	4,489
Top 10 banks <sup>1</sup> .....	2,133	622	3	21	2,158	645
All banks.....	2,492	1,223	20	78	2,533	1,303
Total.....	6,120	4,917	974	763	7,141	5,792
<b>1961:</b>						
Top 10 dealers <sup>1</sup> .....	1,663	875	259	33	1,922	908
All dealers.....	3,938	4,341	1,054	667	5,028	5,096
Top 10 banks <sup>1</sup> .....	2,621	850	3	15	2,625	865
All banks.....	3,044	1,584	14	65	3,058	1,650
Total.....	6,982	5,925	1,067	732	8,086	6,746
<b>1962:</b>						
Top 10 dealers <sup>1</sup> .....	2,105	1,137	162	23	2,266	1,160
All dealers.....	4,117	4,497	753	453	4,895	4,962
Top 10 banks <sup>1</sup> .....	2,531	883	20	11	2,551	894
All banks.....	3,028	1,707	24	32	3,052	1,743
Total.....	7,145	6,204	777	485	7,947	6,705
<b>1963:</b>						
Top 10 dealers <sup>1</sup> .....	\$2,497	763	\$656	70	\$3,206	837
All dealers.....	4,599	3,490	1,786	1,117	6,526	4,694
Top 10 banks <sup>1</sup> .....	2,579	724	5	20	2,764	744
All banks.....	3,384	1,583	18	86	3,403	1,672
Total.....	7,983	5,073	1,805	1,203	9,930	6,366
<b>1964:</b>						
Top 10 dealers <sup>1</sup> .....	1,811	1,042	265	25	2,077	1,068
All dealers.....	3,802	3,943	956	803	4,824	4,838
Top 10 banks <sup>1</sup> .....	2,810	947	4	6	2,814	953
All banks.....	3,899	2,285	14	62	3,912	2,347
Total.....	7,701	6,228	970	865	8,736	7,185
<b>1965:</b>						
Top 10 dealers <sup>1</sup> .....	2,500	793	195	34	2,721	831
All dealers.....	4,785	3,494	773	680	5,681	4,306
Top 10 banks <sup>1</sup> .....	3,358	946	11	46	3,369	992
All banks.....	4,812	2,395	69	68	4,941	2,468
Total.....	9,597	5,889	841	748	10,622	6,774

<sup>1</sup> The 10 dealers and 10 banks ranked highest in terms of management of new issues.

Source: Investment Bankers Association of America.

TABLE 2.—*Distribution of underwritten issues: By type offering and dealer*  
 [General obligation bonds, 1957-65 (dollar amounts in millions)]

	Competitive		Negotiated		Total	
	Amount	Number	Amount	Number	Amount	Number
1957:						
Top 10 dealers <sup>1</sup> .....	\$860	474	\$9	11	\$879	485
All dealers.....	1,865	3,041	155	732	2,084	4,016
Top 10 banks <sup>1</sup> .....	1,674	604	27	37	1,170	641
All banks.....	1,987	1,125	52	98	2,039	1,223
Total.....	3,852	4,166	207	830	4,123	5,239
1958:						
Top 10 dealers <sup>1</sup> .....	1,204	531	7	7	1,211	538
All dealers.....	2,297	3,083	162	735	2,525	3,998
Top 10 banks <sup>1</sup> .....	2,154	650	17	46	2,171	696
All banks.....	2,924	1,207	37	110	2,960	1,317
Total.....	5,220	4,290	199	845	5,485	5,315
1959:						
Top 10 dealers <sup>1</sup> .....	1,180	448	9	6	1,189	455
All dealers.....	2,239	3,035	126	551	2,384	3,749
Top 10 banks <sup>1</sup> .....	2,188	524	57	27	2,245	551
All banks.....	2,502	1,131	76	85	2,578	1,216
Total.....	4,741	4,166	202	636	4,962	4,965
1960:						
Top 10 dealers <sup>1</sup> .....	1,377	625	6	6	1,382	631
All dealers.....	2,407	3,139	118	457	2,536	3,691
Top 10 banks <sup>1</sup> .....	2,113	621	3	21	2,138	644
All banks.....	2,472	1,220	20	77	2,513	1,299
Total.....	4,878	4,359	138	534	5,048	4,990
1961:						
Top 10 dealers <sup>1</sup> .....	1,062	715	44	11	1,106	726
All dealers.....	2,555	3,651	156	394	2,721	4,125
Top 10 banks <sup>1</sup> .....	2,614	848	3	15	2,617	863
All banks.....	3,033	1,574	14	63	3,047	1,638
Total.....	5,588	5,225	170	457	5,768	5,763
1962:						
Top 10 dealers <sup>1</sup> .....	1,204	913	3	3	1,208	916
All dealers.....	2,493	3,679	90	221	2,585	3,910
Top 10 banks <sup>1</sup> .....	2,514	878	20	11	2,535	889
All banks.....	3,009	1,695	24	32	3,033	1,727
Total.....	5,502	5,374	114	253	5,618	5,637
1963:						
Top 10 dealers <sup>1</sup> .....	\$1,277	527	\$5	5	\$1,283	533
All dealers.....	2,429	2,579	211	550	2,679	3,189
Top 10 banks <sup>1</sup> .....	2,705	718	5	20	2,710	738
All banks.....	3,328	1,569	18	86	3,346	1,656
Total.....	5,756	4,148	229	636	6,025	4,845
1964:						
Top 10 dealers <sup>1</sup> .....	1,037	848	0	0	1,037	848
All dealers.....	2,462	3,269	182	379	2,659	3,724
Top 10 banks <sup>1</sup> .....	2,738	939	4	6	2,742	945
All banks.....	3,818	2,272	14	62	3,832	2,334
Total.....	6,281	5,541	195	441	6,491	6,058
1965:						
Top 10 dealers <sup>1</sup> .....	1,386	579	2	3	1,388	582
All dealers.....	3,066	2,797	99	272	3,207	3,158
Top 10 banks <sup>1</sup> .....	3,292	934	11	46	3,303	980
All banks.....	4,715	2,369	66	67	4,841	2,441
Total.....	7,782	5,166	165	339	8,048	5,599

<sup>1</sup> Includes PHA issues.

Source: Investment Bankers Association of America.



TABLE 3.—Distribution of underwritten issues: By type offering and dealer

[Revenue bonds, 1957-65 (dollar amounts in millions)]

	Competitive		Negotiated		Total	
	Amount	Number	Amount	Number	Amount	Number
1957:						
Top 10 dealers <sup>1</sup> .....	\$573	157	\$358	30	\$931	187
All dealers.....	1,030	489	581	248	1,678	756
Top 10 banks <sup>1</sup> .....	0	0	0	0	0	0
All banks.....	1	4	1	4	2	8
Total.....	1,031	493	581	252	1,680	764
1958:						
Top 10 dealers <sup>1</sup> .....	696	149	199	38	895	187
All dealers.....	1,210	556	429	297	1,689	883
Top 10 banks <sup>1</sup> .....	0	0	0	0	0	0
All banks.....	4	8	0	3	6	13
Total.....	1,213	564	430	300	1,695	896
1959:						
Top 10 dealers <sup>1</sup> .....	730	137	795	15	1,525	152
All dealers.....	1,272	515	1,118	224	2,402	757
Top 10 banks <sup>1</sup> .....	0	0	0	0	0	0
All banks.....	1	1	6	4	11	9
Total.....	1,272	516	1,125	228	2,413	766
1960:						
Top 10 dealers <sup>1</sup> .....	743	154	326	11	1,069	165
All dealers.....	1,219	553	835	228	2,069	796
Top 10 banks <sup>1</sup> .....	20	1	0	0	20	1
All banks.....	20	3	0	1	20	4
Total.....	1,239	556	835	229	2,089	800
1961:						
Top 10 dealers <sup>1</sup> .....	601	160	215	22	816	182
All dealers.....	1,384	690	897	273	2,307	971
Top 10 banks <sup>1</sup> .....	8	2	0	0	8	2
All banks.....	11	10	0	2	11	12
Total.....	1,394	700	897	275	2,317	983
1962:						
Top 10 dealers <sup>1</sup> .....	900	224	158	20	1,059	244
All dealers.....	1,624	818	663	232	2,310	1,052
Top 10 banks <sup>1</sup> .....	16	5	0	0	16	5
All banks.....	18	12	0	0	20	16
Total.....	1,642	830	663	232	2,329	1,068
1963:						
Top 10 dealers <sup>1</sup> .....	\$1,220	236	\$652	65	\$1,924	304
All dealers.....	2,170	911	1,576	567	3,847	1,505
Top 10 banks <sup>1</sup> .....	54	6	0	0	54	6
All banks.....	57	14	0	0	57	16
Total.....	2,227	925	1,576	567	3,904	1,521
1964:						
Top 10 dealers <sup>1</sup> .....	774	194	265	25	1,039	220
All dealers.....	1,340	674	774	424	2,164	1,114
Top 10 banks <sup>1</sup> .....	72	8	0	0	72	8
All banks.....	80	13	0	0	80	13
Total.....	1,420	687	774	424	2,245	1,127
1965:						
Top 10 dealers <sup>1</sup> .....	1,114	214	193	31	1,333	249
All dealers.....	1,719	697	674	408	2,475	1,148
Top 10 banks <sup>1</sup> .....	66	12	0	0	66	12
All banks.....	97	26	3	1	100	27
Total.....	1,816	723	677	409	2,574	1,175

<sup>1</sup> The 10 dealers and 10 banks ranked highest in terms of management of new issues.

Source: Investment Bankers Association of America.

## CHAPTER 10

### Municipal Financial Consultants\*

#### NATURE AND FUNCTIONS

Municipal finance consulting as a profession has its roots in the great depression of the 1930's. Since many municipalities had predicated borrowing during the late 1920's on a never-ending boom, the suddenly shrinking tax revenues of the early and midthirties brought many to the brink of default. Debt reorganization and refunding became the order of the day as local governments sought to bring debt service schedules in line with revenues. The municipal finance expert was called in to act as liaison between the bondholder and the issuer and work out a debt reorganization plan acceptable to both.

Since then municipal finance consulting owes its development to the increasingly complex and competitive nature of the business of marketing debt securities of State and local governments.

#### SCOPE OF DUTIES

The scope of duties performed by a municipal finance consultant vary considerably depending on the nature of the issue, its size, and the standing of the issuer. Generally, however, the consultant provides the following services:

- (a) Surveys issuer's debt structure and financial resources to determine borrowing capacity for future capital financing requirements.
- (b) Gathers all pertinent financial statistics and economic data such as debt retirement schedule, tax rates, overlapping debt, etc., that would affect or reflect on the issuer's ability and willingness to repay its obligations.
- (c) Advises on the time and method of marketing; terms of bond issues, including maturity schedule, interest payment dates, call features and bidding limitations.
- (d) Prepares an overall financing plan detailing the recommended approach and probable timetable.
- (e) Prepares, in cooperation with bond counsel, an official statement, notice of sale, and bid form and distributes same to all prospective underwriters and investors.
- (f) Assists the issuer in getting local public acceptance and support of the proposed financing.
- (g) Keeps in constant contact with the rating services to insure that they have all the information and data they require to properly evaluate the credit.

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\* Prepared by Arthur R. Guastella, executive vice president, Wainwright & Ramsey, Inc., New York, N.Y., with minor editing by committee staff.

- (h) Is present when sealed bids are opened and stands ready to advise on acceptability of bids.
- (i) Supervises the printing, signing, and delivery of the bonds.
- (j) Advises on investment of bond proceeds.

#### QUALIFICATIONS AND STANDARDS OF PERFORMANCE

In general, the municipal finance consultant should have a broad knowledge of municipal government, laws, and practices. He should also be fully conversant with the intricacies of underwriting and distributing municipal securities as well as investor preferences and prejudices. Finally, he must be capable of discerning and interpreting developments in the bond and money markets.

While there are no standards in performance as such, the professional services rendered must be of a consistently high caliber as the major portion of new business originates from the referrals of satisfied clients. Experience, reputation, and integrity are the consultant's major assets.

#### STRUCTURE OF THE INDUSTRY

At this point, a distinction should be drawn between the independent financial consultant and the investment banking firm acting as a consultant. The independent consultant renders professional service for a fee and he represents and acts for the issuer who has retained him. Investment banking firms, on the other hand, are primarily in the business of underwriting and distributing securities for a profit. While there is no question about the ability of a reputable investment banking firm to render competent advice and service—the two functions—acting as agent for the issuer and underwriting the issuer's bonds—have often raised questions of a conflict of interest. Accordingly, some investment banking firms, as a matter of policy, will not participate in the underwriting of an issue, if they are acting as consultant.

Commercial banks, by and large, limit themselves to providing general advice and guidance to governmental issuers. There are a few, however, which offer full consultant services. Attorneys, engineers, and accounting firms have also provided municipalities with advice on bond financing.

#### NUMBER, SIZE, AND DISTRIBUTION OF FIRMS

Research indicates that there are only six nationally recognized independent municipal finance consultants. One is headquartered in New York with branch offices in Florida and California and has a total of 20 employees. Another is headquartered in Chicago and serves governmental issuers through the Middle West. It has eight employees. Interestingly, there are three such firms in the Minneapolis-St. Paul area operating in Minnesota, Wisconsin, and North and South Dakota, with an estimated 40 employees. There is one independent consultant firm headquartered in California, with about four employees.

A similar tally of investment banking firms presents some problems since every investment banking firm with a municipal bond department is potentially a consultant. However, if consideration is limited to those firms which have one or more individuals actively and consistently engaged only in consulting service then there are at least 30 invest-

ment banking firms which would qualify. Most are headquartered in New York with the bulk of the remainder in Texas and California.

### RELATIONSHIPS WITH OTHER SEGMENTS OF THE INDUSTRY

Financing consultants are employed as agents for the municipality and render services for a fee. The municipality looks to the consultant for advice and guidance in all phases of financing municipal improvements. The consultant, acting as liaison between issuer and underwriters should anticipate and provide for all of the prospective underwriters' needs in the preparation of the bid.

The consultant should work to stimulate interest in the issuers securities among investors and also make sure that bondholders are kept fully informed.

The consultant should work very closely with other technical advisers such as bond counsel, engineers, and architects.

### REMUNERATION

Just as the type of services provided will vary from issuer to issuer, so too does the basis of contracts vary. The size and method of payment of fees will depend upon the type of issue, its size, and complexity.

An issuer who makes regular demands on the capital market may contract with a financial consultant on the basis of an annual retainer. The annual retainer is also preferred in the case of a unique or major project which may involve many years of work before any bonds are actually issued. The retainer may cover all services or it may be credited against a per bond fee, or it may be in addition to per bond fees. Such fees may or may not include expenses.

In a good many cases the fee is established on a per bond basis with charges for revenue bonds generally higher than those on straight general obligation bonds. Such fee schedules are on a sliding scale with the per bond charge decreasing as the size of the issue increases. On a \$1 million general obligation issue for example, the fee might be between \$2 and \$3 per \$1,000 bond, while on a \$10 million issue, it would only be about \$1 or \$1.50 per bond.

Revenue bond consulting fees show considerable variation because such issues are generally much more complex than issues backed by a governmental unit's full faith and taxing power. If the security provisions are relatively simple the per bond fee might be only about 25 percent higher than on a general obligation issue of the same size. On others, the fee schedule could be \$5 per bond on the first \$5 million and \$2.50 per bond over \$5 million. In certain special instances a per diem arrangement may be made.

As a practical matter, consulting fees can be fixed only after considering the individual bond issue and determining just how much work is involved. There are no pat formulas for putting a bond issue together. Governmental issuers are considerably diverse in their makeup, borrowing powers, etc., and their financing problems are equally diverse.

### FUTURE PROSPECTS

When a State or local government undertakes to borrow for a capital improvement, it binds its citizens to a financial obligation which will endure for a generation or more. Increasingly, State and local finance

officers are discovering that the planning, preparation, and execution of a bond issue creates responsibilities which cannot be superimposed on an already burdensome workload. In today's high-volume market, with so many issues competing for investor acceptance, a sloppily prepared or ill-conceived bond issue will result in unnecessarily high interest costs.

Two factors—the heightened competition for the investor's dollar and the increasingly complex nature of the debt instruments themselves—have caused more and more harassed public finance officers to take advantage of the specialized knowledge and broad experience offered by the professional municipal finance consultant.

The industry, while relatively small, is dynamic. All participants report heavy workloads but face one major impediment to expansion: the lack of qualified personnel.

## CHAPTER 11

### Municipal Bond Counsel\*

#### INTRODUCTION

The practice of employing experienced attorneys to render approving opinions respecting the validity of municipal bonds<sup>1</sup> originated as an aftermath to the disenchanting debacle of railway aid financing. Many public agencies engaged in the dubious competitive effort to attract railroad facilities by issuing municipal bonds to pay for subscriptions to railroad stock and to make donations for railroad construction. "This invention to aid the enterprises of private corporations," the eminent Judge John F. Dillon has written, "has proved itself baneful in the last degree \* \* \* and has undeniably been attended with very serious, and it is perhaps not too strong a statement to add, disastrous consequences." The Supreme Court of Illinois has stated that this "mania" for extending such public aid in the construction of railroads resulted in "poisonous byproducts" which far outweighed the temporary benefits. Not the least of such poisonous byproducts were the heavy losses suffered by investors in municipal bonds. Inevitably, the staggering burdens imposed on taxpayers through such extravagant financing precipitated widespread defaults. The lack of sound financial and legal advice in the issuance of the bonds provoked repudiation and litigation voiding numerous bond issues.

In the wake of such excesses, reform measures to prevent recurrences were invoked. Constitutional and charter provisions were adopted and laws were enacted imposing upon States, counties, cities, and other public agencies limitations upon the incurring of indebtedness, the levy of taxes, the granting of aid to private persons or corporations, and the use of public moneys for purposes not public in nature. Election and other restrictive procedural requirements were enacted, further augmenting the legal restrictions attending the issuance of municipal bonds.

The need for the services of bond attorneys thus emerged. Investors required assurances as to the validity of the bonds. In order to mitigate resistance to the purchase of municipal bonds, the practice developed whereby bond dealers used house counsel or retained bond attorneys to render approving opinions on bonds. Bids for the purchase of bonds were conditioned upon the approving opinion of a designated attorney. In such case the bond transcript would

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<sup>1</sup> Bonds issued by States and Puerto Rico and their municipal corporations and political subdivisions and by authorities, districts, and other public agencies.

be sent to the attorney after the award of the bonds had been made to a particular bidder. Pending the completion of the legal examination of such transcript, there was always uncertainty as to whether the bonds would be approved and delays in the delivery of the bonds. Delays were experienced in compiling the transcript and in amending and supplementing various papers and proceedings to meet the requirements of such attorney. Irregularities in bond elections discovered at the last moment were embarrassing impediments. Litigation occasionally resulted from efforts of public agencies to retain bid deposits or enforce accepted bids in situations where such attorneys failed to render approving opinions on the bonds. This early practice of dealers' employment of bond attorneys proved disadvantageous and is now largely supplanted by the practice of having the public agency issuing the bonds retain bond counsel. It is now customary for the issuing public agencies to offer approving opinions of bond counsel on practically all municipal bond issues. Underwriters and purchasers are thereby assured that the issuance of the bonds, from the initial inception to final delivery, conforms to constitutional, statutory, and charter requirements and that the bonds are otherwise valid and binding. In a publication relating to municipal bonds, one of the Nation's largest banks comments as follows:

The importance of a municipal bond attorney must never be underestimated. Because the procedure through which a unit of government may borrow for any purpose is specifically prescribed by law, the prospective bond purchaser must be assured that every step in the authorization process has been taken in strict observance of the law. This assurance is given to prospective investors by securing the unqualified approving legal opinion of a nationally recognized bond attorney. Municipal bonds are not generally marketable without such an opinion.

In striking contrast, no similar opinion of counsel is required for the sale of bonds of private corporations. The powers of private corporations to issue bonds are extremely broad and are not subject to substantive and procedural limitations of the type imposed upon municipal corporations. The validity of municipal bonds generally is dependent upon meticulous compliance with a maze of constitutional, statutory, and, in some cases, charter provisions and judicial opinions strictly limiting and circumscribing, both substantively and procedurally, the powers of public agencies to issue municipal bonds. In addition, the authority to issue municipal bonds is subject to the restrictive underlying legal principle that municipalities and other public agencies of a State may exercise only such powers as are expressly granted by law or are necessarily implied from powers expressly granted.

## 1. NATURE AND FUNCTIONS OF BOND COUNSEL

### (A) SCOPE OF DUTIES; SERVICES RENDERED

The branch of law in which bond counsels specialize comprises a vast array of general statutes, special laws, charters, constitutional provisions, opinions of State and Federal courts, and administrative and other rulings, pertaining to the authorization, description, terms, conditions, and procedures for the issuance of bonds of various types by the States, Puerto Rico, and many hundreds of counties, municipalities, and other public agencies. The scope of the duties of bond coun-

sel is delineated by the expanding limits of the municipal bond industry, now exceeding an annual volume of \$11 billion. The ambit of the bond attorney's services has been progressively extended with the changing scope, complexity, and increasing volume of municipal bond financing.

Specifically, the duties of bond counsel are broad as necessary to establish to his satisfaction the legality of the bonds when they are issued and delivered. He is expected to examine the applicable law and to review the bond proceedings, resolutions, ordinances, election documents, if any, and other documents to determine whether he can render an approving opinion as to the validity of the bonds. This basically and traditionally has been, and currently is, the principal function of bond counsel.

However, the role of bond counsel in connection with many bond issues, particularly revenue bond issues, is far more extensive. Population increases, urbanization, technological advancements, industrial and commercial expansion, educational, health, social and cultural developments and other factors have built up pressures for more and better public facilities and public services. The functions of bond counsel have expanded to keep pace with new methods and the added complexities of financing the public facilities and services demanded by a more sophisticated or, in any event, a more affluent citizenry. The challenge of coping with such demands has called forth the specialized knowledge and experience of bond attorneys to develop new, or to adapt old, legal concepts and techniques of public financing. In cooperation with legislators, public officials, underwriters, investors, engineers, and others, bond attorneys have engaged in drafting legislation, even constitutional amendments, devising new methods of financing, creating new public instrumentalities and preparing trust indentures, resolutions, ordinances, contracts, and other documents that have contributed to the acceptance by the investing public of an increasing volume of municipal bonds.

When employed in the initial stages of a proposed bond issue, bond counsel is in a position to offer suggestions for obviating delays and perhaps costly errors. Through conferences with public officials, underwriters, and financial consultants respecting the proposed financing, bond attorneys may advise as to the nature of the financing that is most suitable from a legal point of view and may outline the actions and proceedings required to effectuate such financing. He may determine that the enactment of additional legislation may be required, or that certain legal questions may have to be adjudicated, or, in certain instances, that a constitutional amendment may be necessary. He may prepare the additional legislation or the constitutional amendment, if found necessary, and in connection with any litigation to resolve legal questions, may frame the questions that are to be submitted for judicial determination and may prepare, or assist in the preparation of, pleadings, briefs, and other litigation papers and, occasionally, may appear in court.

The work of bond counsel, more prosaically, is marked by searching, meticulous, and detailed examinations of laws, legal instruments, and proceedings—work occasionally disparaged as “the dotting of the i's and the crossing of the t's” approach. Such deliberate approach and circumspection stem from bond counsel's overriding objective to estab-



lish to his satisfaction the legality of the proceedings and the validity of the bonds and also to minimize the risk of litigation on the bonds following their issuance. He recognizes that litigation, even if terminated favorably, is prejudicial to the interests of bondholders and that no buyer of bonds wants to buy a lawsuit.

Bond counsel's initial consideration is whether there is legal authority for the issuance of the bonds. This may entail a search for and a study of general statutes, local laws, charter provisions and constitutional provisions. The statutory or charter authority for the issuance of the bonds must be consistent with constitutional requirements and limitations. Journals of legislative bodies relating to the enactment of legislation occasionally must be examined to ascertain whether the enactment conforms to constitutional requirements. The opinions of State and Federal courts bearing upon the legality of the bonds have to be considered.

If satisfied that legal authority to issue the bonds is duly vested, bond counsel then prepares (or, in certain cases, reviews), in the light of applicable legal requirements and limitations, the proceedings for the issuance of the bonds, including the legal instruments necessary to authorize the issuance of the bonds and to describe the bonds and the security thereof. Ordinances, resolutions, and, particularly for revenue bond issues, trust indentures are usually the bond authorizing instruments.

In the preparation of such legal instruments, bond counsel is guided by forms and precedents previously used, but each bond issue requires a legal instrument specifically tailored to fit the particular factual and legal situation. Frequently, new and imaginative approaches to solve unique problems which constantly arise must be devised. A trust indenture of over 150 printed pages is not unusual in revenue bond financing. Its length, often facetiously attributed to the verbosity of lawyers, is essential for the proper delineation of the security for the bonds and for the protection of the interests of the public agency issuing the bonds, the purchasers of the bonds and the trustee administering the trust. Many of the provisions of the trust indenture have been developed to meet specific problems that have arisen or to satisfy suggestions of investors, underwriters, financial consultants, engineers, trustees, public agencies, and others. The trust indenture, an instrument that may remain in force for perhaps more than three or four decades, long after the participants in its drafting are departed, must specify clearly and in reasonable detail the description of the bonds authorized, the security of the bonds, the custody and application of the bond proceeds, the charging, collection, and administration of rates and charges, the creation of reserve funds and accounts, the safeguarding and application of revenues, the covenants respecting the operation, maintenance, repair, use, and insuring of the project being financed, the remedies of the bondholders in the event of default, the rights and duties of the trustee, and other requirements and procedures.

Notwithstanding a certain rigidity respecting provisions deemed fundamental, the form of trust indenture securing revenue bonds is still in the process of development. It must always remain flexible and readily adaptable to new conditions.

If a revenue bond issue is not secured by a trust indenture, bond counsel in drafting the bond ordinance or bond resolution may adapt and include many of the provisions otherwise contained in a trust indenture.

Following the initial preparation of the trust indenture, bond ordinance or bond resolution, such instrument is submitted for review by the interested parties. Conferences and discussions are usually required before bond counsel drafts in final form a legal instrument acceptable to all parties. When prepared in final form, the document is submitted for approval, adoption, and, if required, proper execution.

Bond counsel may also draft agreements of lease when rentals thereunder are pledged for the payment of revenue bonds and contracts for the purchase of existing facilities whose revenues are similarly pledged. Illustrative of bond counsel's expanded services under the complexities of modern day municipal financing are the services being performed by one firm of bond attorneys as "project attorney" on all the urban renewal projects in a State.

With respect to general obligation bonds payable from ad valorem taxes, the work of bond counsel generally is not as time consuming as that for revenue bonds. The forms of legal instruments therefor are not subject to the degree of continual revision typical for revenue bond issues and, moreover, general obligation bonds, unlike revenue bonds, offer little basis for discussions and agreements as to the security and other matters. Trust indentures usually are not involved. However, the constitutional and statutory limitations mentioned above are applicable and bond counsel must be satisfied that the general obligation bonds are within applicable debt limitations, that any applicable tax limitation as to rate or amount is observed and that any required elections respecting the bonds or the project financed thereby are called and held in conformity with law.

Special assessment bonds require a meticulous examination of a maze of technical legal requirements designed to protect property rights. Bond counsel must ascertain that the assessment or charges against the property benefited by the improvement financed have been duly assessed in conformity with the prescribed procedures, which may include the giving of due notice and the holding of public hearings. If such bonds under applicable law are additionally secured by ad valorem taxes, bond counsel must be assured that the legal requirements for the authorization and levy of such taxes are observed.

Bonds secured, in whole or in part, through pledges of excise taxes, such as motor fuel, cigarette or public utility taxes, or through rents payable from funds, appropriated periodically, present additional legal problems that must be resolved to the satisfaction of bond counsel.

Bond counsel's duties may also embrace the preparation of additional ordinances and resolutions, forms of minutes, certificates, affidavits, statements, and other legal instruments necessary or desirable to evidence the proper approval, authorization, and issuance of the bonds in conformity with applicable legal requirements and, if pertinent, the understandings or agreements of the interested parties, and to assure that the public agency can undertake, carry out, and finance the project in the manner proposed, that the bonds are issued and secured as permitted by law and will be marketable at reasonable rates

of interest, and that the purchasers and holders of such bonds are adequately protected. Bond counsel examines the rates of interest, the maturity schedule, the date and denomination of the bonds, the maturities, the registration privileges, the place of payment and also the printer's proofs of the bonds to make sure that they are properly printed by a firm qualified to do the work and operating under procedures of supervision and control as to eliminate duplicate or illegal bonds and to prevent counterfeiting and forgery of bonds.

The public agency issuing the bonds usually provides a prospectus or official statement relating to the bond issue and the agency issuing the bonds. Oftentimes such prospectus or statement is prepared by the financial consultant of the agency. Bond counsel must review the prospectus or official statement to make certain that the legal information is correct and that no material legal information has been omitted. The bond attorney also examines the transcript of the proceedings providing for the sale of the bonds to satisfy himself that the bonds have been legally sold. If a public sale is required, bond counsel must be satisfied that the sale has been properly advertised and that the bid accepted is legally acceptable. He must also be satisfied that the bonds are properly executed, and to that end he examines one of the executed bonds of each series (if more than one series).

Prior to the delivery of the bonds, the bond attorney must hold himself ready to answer inquiries respecting the bonds from rating services, institutional investors, underwriters, trustees, paying agents and others.

A date mutually satisfactory is set for the delivery of and payment for the bonds. If on such date bond counsel is satisfied that the certificates and other closing papers are in good order and all conditions precedent have been satisfied, the bonds are delivered and evidence of payment therefor in full is required. Simultaneously, the opinion of bond counsel approving the bonds is released.

Generally, it is the practice to deliver to a purchaser of municipal bonds a copy of the legal opinion rendered on such bonds. The practice has developed, upon the basis of a recommendation made in 1958 by the Investment Bankers Association, to have the complete final legal opinion, with the name of the attorney, printed on the back of each municipal bond with a certification, signed with a facsimile or manual signature by a paying agent or an official of the issuer, that the copy is a true and correct copy of the original opinion. However, the practice of printing a copy of the legal opinion on the back of municipal bonds does not extend to opinions, such as those on certain revenue bonds, that are too lengthy for such purpose.

The rendering of this final opinion may be the climax, but not necessarily the end, of the bond attorney's work on the bond issue. Questions may arise after the date of closing which the bond attorney is expected to resolve. Prospective purchasers of the bonds in the secondary market, the trustee, the consulting engineers, the accountants, the underwriters, and the issuing public agency often pose problems that require additional legal services. Bond attorneys usually perform such services as a part of their overall functions in connection with the bond issue.

## (B) BASIS OF CONTRACT

Bond attorneys, as indicated above, are generally employed by the public agencies issuing the bonds. However, in certain cases, particularly in connection with large revenue bond issues, the underwriters may employ bond counsel. Normally he works with the public agency issuing the bonds in the same manner as if he were directly employed by such agency.

Arrangements for the services of bond counsel are rather informal. An exchange of letters between the bond attorney and the client usually suffices to consummate the attorney-client relationship. If the public agency issuing the bonds employs the bond attorney, a resolution authorizing or approving the employment of counsel may be adopted. If the bond attorney has represented the public agency with respect to previous bond issues, there may not be any specific reference to legal fees as it will be assumed that the fees will generally be in line with previous charges. Oftentimes it may not be feasible to quote at the initial stages of the bond proceedings a definite fee. In such case, the determination of the fee is postponed until a proper evaluation of the work and responsibility involved can be made or, if otherwise necessary, the bond attorney may quote a maximum or minimum fee or a minimum and maximum range, with perhaps some qualification respecting unanticipated events, such as litigation. Fairly definite fees may be quoted early respecting certain types of bonds involving established types of proceedings.

In certain cases bond counsel may be employed by the public agency issuing the bonds subject to the requirement that the purchaser of the bonds shall pay bond counsel's fees. In such cases it is important that the prospective purchasers of the bonds know the amount of the fees prior to the submission of their proposals to purchase the bonds so that the fees may be reflected in their bids.

Occasionally, advertisements for the sale of bonds (primarily obligations guaranteed by the Federal Government) provide that bids may be conditioned upon the successful bidder's obtaining the approving opinion of recognized bond counsel of his choice, to be employed and paid by the bidder. Under this procedure the public agency issuing the bonds loses the advantage of having bond counsel employed early in the proceedings to assist in setting up the bond issue upon an acceptable basis and helping to resolve legal questions early in the proceedings. In addition, whether bond counsel is employed by the issuing public agency or whether the issuing public agency pays the fees of bond counsel directly, the ultimate result is that bond counsel's fees are reflected in the price paid for the bonds.

Many public agencies pursue the practice of employing the same firm of bond attorneys year after year. Generally, neither changes in the incumbency of office holders nor changes in the political affiliations of the administration of a particular State, county, or city affects the continuity of such employment of bond counsel. In consequence, such public agencies have the benefit of the services of legal specialists who have acquired a valuable background of knowledge and have become familiar with the financial and legal aspects of the financing of public improvements by such agencies.

The employment of bond counsel by an underwriter or the managers of a group of underwriters may be effected quite informally,

frequently by a telephone call or a letter. Fees may be agreed upon at the time of employment in connection usually with general obligation bonds sold through public bidding. As to certain bond issues that are to be purchased through negotiations, the question of fees may not be discussed until shortly before the actual purchase of the bonds by the underwriters.

#### (C) QUALIFICATIONS AND STANDARDS OF PERFORMANCE

The principal qualification of bond counsel is an established reputation in the municipal bond market. This is gained through high standards of performance in the approval of many bond issues over a span of years. Integrity, experience, a broad background in municipal bond law, familiarity with the needs of public agencies and the requirements of investors and underwriters, skill in drafting essential legal instruments, and an ability to perform his functions with imagination and at the same time with meticulous attention to detail, precision, and thoroughness—these are the attributes of a highly skilled specialist in the field of municipal bonds.

Bond counsel must determine whether a bond issue has been legally issued. The legality of the bond issue cannot be evaluated upon a basis of gradation. It is either legal or illegal. Unless bond counsel is fully satisfied that the bonds are legal, he will not render an approving opinion on such bonds.

Irrespective of who pays his legal fees, bond counsel bears the responsibility of protecting the interest of the ultimate purchaser of the bonds insofar as the legal aspects thereof are concerned. He actually functions as the lawyer for the ultimate purchaser of the bonds in the secondary market. Bond counsel recognizes that the purchaser of bonds is primarily concerned with the payment of the principal and interest on the bonds and that, accordingly, both the legality of the bond issue and the technical aspects thereof bearing upon the payment of principal and interest and the enforceability of the rights of the bondholders fall within bond counsel's functions.

In so filling his responsibility to the ultimate investor, bond counsel cannot, however, ignore safeguarding the rights and interest of the public agency issuing the bonds and those of the underwriters. The attainment of the objectives of the public agency and the marketing of the bonds by the underwriters with reasonable expectation of success cannot be subordinated. Bond counsel must balance equities among the various parties and seek to protect the proper interests of each party. Generally, there exists a compatibility of purpose among such parties.

## 2. SIZE AND STRUCTURE OF INDUSTRY

### (A) NUMBER OF FIRMS

The latest 1966 Directory of Municipal Bond Dealers of the United States, as published semiannually by The Bond Buyer, contains an appendix listing a total of 128 firms which are reported to have performed bond attorney work in the preceding calendar year. It is specifically stated therein that the list has been compiled upon the basis of reports to The Bond Buyer to the effect that the bond attorneys listed have rendered at least one legal opinion in the preceding calendar year upon an issue of State or municipal securities.

Several of the firms listed in such directory may be classified as "nationally recognized bond counsel," in the sense that their opinions upon municipal bonds issued in any jurisdiction are marketable; i.e., are acceptable to the investing public. The opinions of many other bond firms listed are acceptable nationally by the investing public with respect to bonds issued in the particular jurisdiction or region in which such firms are located. Many smaller issues are sold locally with what is known as a local opinion rendered by a bond attorney usually situated in the particular locality in which the bonds are issued.

The public agencies issuing bonds are in competition to attract the highest purchase price for their particular bonds. Each day many issues of municipal bonds are offered. The bond issues which appear most attractive and most desirable to the prospective purchasers will be sold at a better price. The reputation of the bond counsel selected to render the approving opinion on the bonds has a bearing upon the marketability of the bonds and, therefore, upon the purchase price. Larger bond issues supported by local opinions may encounter bidder resistance and higher interest costs. An essential question in issuing bonds is whether the opinion will be recognized as marketable.

Some issues may be marketed under the approving opinions of both a firm of nationally recognized bond counsel and a firm of bond attorneys not so recognized. Certain public agencies follow the practice of offering in support of their bonds the opinion of their local counsel and the opinion of nationally recognized bond counsel. Occasionally, the opinions of two nationally recognized firms of bond counsel may be rendered on a bond issue.

The law firms listed in the directory range from those which have been recently established or which render only one or two opinions upon the validity of bonds in a year to firms which have been established for a half century or more and annually render opinions upon scores of bond issues of various types and have rendered opinions during their existence upon literally billions of dollars of bonds. Many of the firms listed engage in other legal work in addition to municipal bond work. Other firms devote their full time exclusively to municipal bond matters and engage in no other legal work.

Bond attorneys are specialists in a rather narrow field of law. It is interesting to note, however, that many of the firms, through choice or historical reasons, are actually specialists within the specialty of municipal bond law. Certain firms confine their work solely to certain types of bonds, such as special assessment bonds or general obligation bonds. Other firms are specialists in revenue bonds, such as power, water, turnpike and bridge revenue bonds. Some firms specialize only in the bonds of a particular jurisdiction or perhaps a few jurisdictions and are unwilling to render opinions upon bonds issued in other jurisdictions in order to avoid a dilution of their talents and resources.

#### (B) SIZE OF FIRMS (NUMBER OF EMPLOYEES)

Approximately 500 partners and associates of the law firms listed in the directory are named as performing the work of bond attorneys. It is apparent that many of such lawyers do not devote their full time to municipal bond work. Also, some of the firms listed have rendered only one or two legal opinions on municipal bonds in the preceding

calendar year and, hence, the partners and associates in such firms named in the directory did not devote their full time to bond counsel work during such year.

Twenty-two of the firms listed in the directory have only one partner or associate listed as performing bond counsel work. One Illinois firm has 19 bond attorneys designated. An Ohio firm has 15 bond attorneys designated. A California firm has 14 attorneys listed as performing bond counsel work. Four other firms have 10 or more bond attorneys listed.

Aside from the listed firms of bond attorneys, bond work to a greater or less degree is performed, in conjunction with bond attorneys, by many legal officers of public agencies, including attorneys general, county attorneys, city attorneys, corporation counsel and general counsel, solicitors and attorneys for authorities, school districts and other special districts and political subdivisions.

(C) DISTRIBUTION BY STATES, MAJOR CITIES

The 128 firms of bond attorneys listed in the directory are located in 37 States and the District of Columbia. According to this directory, in each of 10 States there are 2 firms, in each of 4 States there are 3 firms, and in each of 14 States there are 4 or more firms. The Commonwealth of Pennsylvania with 21 firms listed in such Directory, 12 of them in the city of Philadelphia, leads the Nation in such category. The State of New York has 8 firms of bond attorneys, all located in the city of New York. Seven firms are located in Baltimore, Md.

The distribution of such firms is as follows :

States:	<i>Number of firms</i>	States:	<i>Number of firms</i>
Pennsylvania -----	21	Arizona, Colorado, Iowa,	
New York-----	8	Maine, Michigan, Missouri,	
Maryland, Texas-----	7	Nebraska, Tennessee, Utah,	
California, Kansas, Louisiana..	5	and West Virginia-----	2
Connecticut, Georgia, Illinois,		District of Columbia, Florida,	
Kentucky, Massachusetts,		Indiana, New Mexico, Ore-	
Minnesota, Washington-----	4	gon, South Carolina, South	
Alabama, Arkansas, Ohio, and		Dakota, Vermont, Virginia,	
Oklahoma -----	3	and Wisconsin-----	1

3. RELATIONSHIPS

(A) WITH BORROWERS

Usually a close working relationship between bond counsel and the public agency issuing the bonds is maintained. Such agency must communicate to bond counsel as clearly and as fully as practicable its objectives in issuing the bonds and the type of obligations to be issued and must furnish bond counsel information and numerous bond transcript documents as requested by bond counsel. Depending upon the type of bonds involved and the procedures and requirements under applicable law, bond counsel may request certified copies of proceedings, resolutions, ordinances, affidavits, opinions, reports and other documents and information. Oftentimes, the bond transcript is voluminous.

Bond counsel are very meticulous about details, and it is to the best interests of the public agency issuing the bonds to satisfy the requests for information and documents made by bond counsel, however unimportant that may appear to be to the layman. Bond counsel knows that full and meticulous observance of the requirements of the law is a protection to the public agency, the underwriters and the investing public.

(B) WITH BOND UNDERWRITERS

Bond attorneys also maintain close working relationships with underwriters. This is particularly true in connection with large revenue bond issues. Bond counsel frequently attended conferences of underwriters during the early stages of a proposed bond issue to discuss the type of security and any proposed methods of financing from a legal point of view. From these early stages to the final closing of the loan and beyond, bond counsel collaborates with the underwriters in setting up the bond issue to accord with the agreement of the public agency and the underwriters. Representatives of the underwriters and bond counsel from time to time confer with respect to provisions of the proposed trust indenture, the official statement and other legal papers. Bond counsel frequently attend underwriters' information meetings to discuss the legal aspects of the issue and to answer questions bearing upon such aspects. Bond counsel also may prepare for the underwriters other legal instruments pertaining to the bond issue, such as the contract of purchase of the bonds submitted by the underwriters to the public agency issuing the bonds.

(C) WITH LENDERS AND INSTITUTIONAL INVESTORS

Banks, insurance companies and other investors by telephone or letter often request bond counsel to furnish information or advice respecting a proposed bond issue. Occasionally, changes in the trust indenture are made at the suggestion of prospective investors. Additional transcript documents may be required in order to satisfy the requests of an insurance company or a bank. Some of the larger investors examine the bond transcript which is provided by bond counsel and occasionally raise questions respecting the sufficiency of the transcript or the interpretation of certain instruments included in the transcript. Bond counsel must at all times cooperate with such investors and provide the information desired to the fullest extent feasible.

After the loan has been closed, purchasers of the bonds may raise questions respecting the interpretation of some provision in the bond itself or in the trust indenture or other legal instrument authorizing the issuance of the bonds. In all such cases bond attorneys usually provide such services without charge as part of their overall responsibilities.

(D) WITH OTHER TECHNICAL ADVISERS—FINANCIAL ADVISERS, CONSULTING ENGINEERS

Bond attorneys work closely with the financial advisers of a public agency. The financial advisers consult with bond counsel respecting the legal aspects of projected plans of financing. Through such con-



ferences and discussions with bond counsel, the financial consultants formulate a method of financing and recommend the type of bonds to be issued. The legal instrument prepared by bond counsel for the authorization of the bonds, such as the bond ordinance, bond resolution, or trust indenture, is based on such recommendations, as accepted by the public agency, and referred to such financial advisers for suggestions and comments which, if legally acceptable, are incorporated in the legal instrument.

In connection with certain types of revenue bond issues two firms of consulting engineers may be employed, one to design and supervise the construction of the project to be financed and the other firm to make estimates of revenues, such as toll revenues on a turnpike or toll bridge, and other determinations and projections. Bond counsel may confer with such engineers and review the engineering reports to make certain that they include findings, determinations, and statements consistent with the requirements of law and the trust indenture.

Bond counsel also maintain a close working relationship with local counsel of the public agency. Bond attorneys normally are not substitutes for local counsel. In fact, local counsel facilitate the work of the bond attorneys. Such services as rendering day-to-day advice to the issuing body, attending its meetings, preparing certain types of legal papers, acquiring land, handling litigation, and otherwise guiding the bond proceedings at the local level can be more effectively performed by local counsel working in cooperation with bond counsel.

In drafting the trust indenture, bond counsel considers the suggestions and comments of the trustee and its lawyers. The trustee may frequently consult bond counsel respecting various legal aspects of the functions of the trustee.

#### 4. REMUNERATION

Bond counsel, like other attorneys, are compensated on the basis of legal services rendered. The fees of bond counsel are not governed by any schedule of fees suggested or agreed upon by bond attorneys or by any other group of attorneys. The volume of such type of legal work in any jurisdiction is so limited and the number of firms engaged therein is so small that, to my knowledge, no bar association has attempted to formulate a schedule of fees for bond counsel.

This, however, is not to say that bond counsel's fees do not conform to fair and reasonable standards. Foremost among the controlling factors are the reasonableness and integrity of the bond attorneys and the salutary effect of competition among them. Generally, their fees are much lower than the charges that would be made by lawyers who are not specialists in the field of municipal finance and are less experienced. The fairness and reasonableness of such fees are evidenced by the continuity of employment, as mentioned above, of a firm of bond attorneys by a public agency. The several factors that determine legal fees are the complexity of the work involved, the time devoted to the performance of such work, and the degree of responsibility assumed by the bond attorney. The degree of responsibility is related to the amount of bonds that are approved under his legal opinion and the complexities involved. The larger the bond issue, the greater is the lawyer's responsibility. Where the bond attorney's work consists merely of examining a bond transcript which is provided to him covering a simple bond issue, lower fees can, of course, be expected. Much

higher fees are justified for a more complicated or revenue bond type of financing. Extraordinary or novel methods of financing may entail extraordinary or unusual legal issues that have to be resolved by bond counsel and other additional services.

Occasionally, bond attorneys perform their legal services upon a contingent fee basis whereby the legal fees are payable only if the bond issue in question is sold and delivered. Work upon a contingent fee basis is performed in conformity with the prevailing code of ethics of the American Bar Association. As is to be expected, legal fees payable upon a contingency are larger than would be the case if no contingency were involved. Issuing authorities and underwriters usually prefer that the legal work be performed upon a contingent fee basis. If the bond issue is not sold in such case, no liability for the payment of the legal services is incurred. Generally, the bond attorney then recovers only his out-of-pocket expenses for travel, telephone calls, and similar disbursements.

The legal fees for opinions on general obligation bonds of the ordinary type payable from ad valorem taxes are usually based upon a certain amount per bond with a graduated scale providing for a lower per bond fee as the principal amount of bonds involved increases. The fees for such general obligation bond issues vary as among different bond counsel in different localities. Differences in legal requirements, such as election requirements, may account at least in part for such variances in charges.

Historical factors also play a part in determining legal fees. A bond attorney may be governed by fees that he may have charged a particular client for similar services over a long period of time, and he may be reluctant to increase such fees notwithstanding his increasing costs of operation.

In many instances bond counsel's fees are subject to review and approval by various governmental agencies. Fees pertaining to bond issues of public agencies in connection with loans made by the Federal Government are subject to approval both by the respective local agency issuing the bonds and by the Federal Government. Charges of bond attorneys in connection with other bond issues not involving a Federal loan are subject to approval by the appropriate officers or governing bodies of the State, county, city, or other public agency issuing the bonds. If the bond attorney is employed by the underwriters or the purchasers of the bonds, the fees of the bond attorney must be acceptable to such underwriters or purchasers.

## CHAPTER 12

### Consulting Engineers\*

#### 1. NATURE AND FUNCTIONS OF CONSULTING ENGINEERS

The consulting engineer is an individual or group of professional engineers who offer professional services in specialized engineering fields. The consulting engineer offers independent opinions and solutions to problems based on training and experience. The consulting engineer is available for engagement on engineering matters just as a medical doctor or an attorney is available in their respective fields.

Consulting engineers offer a wide variety of services, including preliminary reconnaissance and appraisal, planning and feasibility studies, engineering design, plans and specifications, construction coordination, supervision of operation, and consultation on special programs. These services are available under a wide variety of contractual agreements from qualified consultants.

##### A. SCOPE OF DUTIES, SERVICES RENDERED

(1) *Preliminary reconnaissance and appraisal.*—The consulting engineer provides independent and expert analysis of specific problems both for preliminary and for more detailed feasibility surveys to develop a definite course of action. The preliminary engineer report to the client may include estimates of construction costs, descriptions and sketches of various plans contemplated, and a review of the site. This phase is important to the client to assist in reaching a decision, but does not include broad comparisons or investigations.

(2) *Planning and feasibility studies.*—The consulting engineer's studies determine possible solutions to the engineering problems and the most economical solutions in terms of both short- and long-range planning as the needs of a situation require. The various engineering solutions available to the client are developed after careful analysis of the present and future needs, detailed costs and benefits, and financial capability of the client. The choices of possible solutions are explained to the client and a recommendation of the best choice is made based upon all relevant factors. Estimates for economical comparisons in these studies, including operating costs, overhead, financing consideration and rates, or expected revenue, may require extensive analysis of historical data and the projection of statistical estimates for future years. Long-range planning, functional studies, and analyses to determine the possibilities of future development are important parts of this phase of the consulting engineer's service.

(3) *Engineering design.*—Preparation of design plans and specifications involves the translation of brief outlines and sketches into

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\*Prepared by the Council of Consulting Engineers with minor editing by committee staff.

working drawings, and details and specifications for the guidance of construction. The design includes basic layout concept and development, calculations to determine strength and capacity requirements, and selection of equipment and materials. These engineering services insure safe, smooth, and effective construction.

(4) *Construction coordination.*—Coordination of construction includes engineering assistance and administration, as the agent of the client, in preparing contract documents, obtaining and evaluating construction contract bids, reviewing schedules and progress during project inspection, checking materials and equipment purchased, inspecting contractors' shop and working drawings, outlining test procedures, reviewing and approving changes, checking costs and payments, supervising final tests and inspection, and preparing record drawings. Engineering supervision may be on occasion an intermittent basis but is generally on a continuous basis for the entire construction period.

(5) *Supervision of operations.*—The consulting engineer provides this service for structure and facilities as well as for operating systems such as production lines, process plants, automated control installations, and other systems. The service may be necessary for several years after completion of the project. It combines experience gained in operating comparable equipment in other plants with related operating techniques.

(6) *Consultation on special problems.*—The consulting engineer offers services in such areas as utility rate studies, value of property, patents, technical expert testimony in litigation, research on methods, review of operating procedures, and assistance in financing.

#### B. BASIS OF CONTRACT

Professional services may be obtained by the client under a wide variety of contractual arrangements. These can be tailored to suit the particular requirements of the client or project.

Many public agencies and private organizations require professional advisory services on a continuing basis and find it advisable to enter into annual retainer agreements with professional services firms. The client is thus assured of a continuing contact with an engineering organization thoroughly familiar with operation and procedures advisory services available on short notice. The annual retainer agreement generally provides for a certain amount of professional service at a set rate, agreed to in advance.

The client may prefer to select a consulting engineer for a specific project, or bond issue, when and as needed. In either case, the individual consultant or consulting firm should be selected on the basis of past experience, available organization personnel, and other professional qualification. Several engineering organizations may be considered for each assignment, however, final negotiation should be limited to the individual or firm felt to be most qualified for the undertaking.

#### C. QUALIFICATIONS AND STANDARDS OF PERFORMANCE

Qualifications are demonstrated by professional registration and by the record of past accomplishments and extent of available professional personnel and experience in the fields involved.

Professional engineering registration is administered by the States. Registration of professional engineers, who have established qualifications and competence, is designed to protect the public health, safety, and welfare. The engineer in responsible charge of planning, design, and other engineering services is required, by law, to have obtained professional registration as a condition precedent to performing, or offering to perform, these services publicly.

Standards of performance are established by the profession itself. The nature and scope of services are established through negotiation between the engineer and the client, and are set forth in the terms of the professional services agreement. These services may include any or all of the following:

- Long-range or master planning.
- Investigations and technical reports.
- Expert witness services.
- Patent preparation assistance.
- Assistance with financing applications and sale of debt securities.
- Engineering and economic feasibility.
- Valuation of property.
- Municipal, urban, or land planning.
- Rate studies, ratemaking.
- Industrial process analysis.
- Time and motion studies.
- Materials testing, evaluation.
- Operations management.
- Market research.
- Project planning and design.
- Contract management.
- Engineering design details.
- Specifying processes, material, equipment.
- Assistance with permits, codes, right-of-way.
- Location studies.
- Soil analysis, foundation design.
- Surveying, mapping, photogrammetry.
- Drainage, water control.
- Materials testing and analysis.

Ethics demand that the professional engineer agree to undertake only those assignments which he is qualified by virtue of training and experience. To each phase of the assignment the engineer is obligated to bring complete and impartial review and analysis of all factors and considerations, employing all available and pertinent information. His recommendations, based on impartial consideration of relative costs, safety, performance, appearance and other results, are then presented to the client.

Standards of performance permit only a complete evaluation of each assignment in the light of all available information, followed by recommendations which will serve the needs of the client, considering safety, economy, and the desired end result.

## 2. SIZE AND STRUCTURE OF INDUSTRY

Consulting services in a wide range of engineering fields are offered by a number of firms and individuals distributed throughout the

United States. Joint ventures, when required, may provide expanded engineering capability.

#### A. CATEGORIES OF FIRMS

Firms provide a wide range of services covering all of the basic disciplines. Engineering firms may serve in one or more of the following fields:

Civil	Chemical
Mechanical	Industrial
Electrical	Metallurgical
Structural	Surveying

In addition, some firms provide architectural and other advisory services.

#### B. NUMBER OF FIRMS

It is estimated that there are 7,000 to 8,000 independent organizations offering engineering services.

#### C. SIZE OF FIRMS

Firms range in size from individual practitioners to organizations with more than 1,000 employees. Total employment in the private sector of the profession is estimated at 80,000 to 85,000 including an estimated 40,000 to 50,000 professional engineers.

#### D. DISTRIBUTION OF FIRMS

Consulting engineering firms are generally distributed evenly, throughout the United States, following general population distribution. There is some concentration of larger firms in the major cities.

#### E. DEGREE OF SPECIALIZATION AND INTERCHANGEABILITY

Many firms are highly specialized in such fields as chemical process engineering, industrial plant layout, metallurgy, structural design, power production, water supply, and sewerage. Others provide a complete range of services embracing all phases of project planning, economic and valuation studies, engineering and architectural design, and construction management.

There are few barriers to the participation of firms in projects with respect to size. Where project requirements are beyond the scope of a given firm, joint ventures involving two or more firms with the required capabilities may be formed. Consulting firms may work as associate professionals with other engineering firms or architects, and the same firms may act as prime professionals.

### 3. THE RELATIONSHIP OF THE CONSULTING ENGINEER IN THE MUNICIPAL SECURITIES MARKET

The marketing of municipal securities requires the efforts of a team of specialists. It requires the attorney, with experience in legal matters on security issues, who assures that the legal and statutory requirements are met and that covenant provisions incorporated are satisfactory both to the borrower and to the prospective investor. It certainly requires the consulting engineer, who is an informed specialist with technical training and experience to allow proper evaluation of the project, including projections of growth and ability to repay debt.

It also requires the bond underwriters, who have a vital interest in the conditions and feasibility of the issue, and who are actually the bidders for the securities. It requires the institutional investors and lenders—these are the investors who will purchase the securities from the bond underwriters, and in the interest of the buyer requires the evaluation of the merits of the securities by standards set in the market and through experience. There may also be other technical advisers such as financial consultants, who make available experience with similar matters, and who advise as to conditions of the issue, such as the scheduling of terms and amounts of payment, to fit other financial programs of the borrower.

The consulting engineer is responsible for the engineering concept and planning of the project, its design, and estimates of cost. He is also an informed specialist with experience and responsibility for growth projections and anticipated revenues over the life of the security issue. The experience and reputation of the consulting engineer is very important in connection with the given issue, since the other members of the team, and particularly those in connection with the purchasers, must be able to rely upon the consulting engineer's opinions.

#### A. ATTORNEY FOR THE BORROWER

It is the obligation of the attorney for the borrower to prepare contract documents in compliance with statutory requirements and practice which will be in the best interest of, and provide protection for both the borrower and the investor. The attorney must properly balance the many matters involved in the preparation of the contract to the best interests of all, and in so doing he will operate to the benefit of the issue and to the best sale of the security. The consulting engineer, as a member of the team of the marketing group, is available to furnish information and advice to the bond attorney, as an informed specialist in connection with engineering and economic matters entailed in preparing the bond contract. Experience has shown that it is advisable that the consulting engineer review the draft of the bond contract with regard to the effect of specific provisions from an engineering and economic standpoint. The engineer complements the attorney's legal expertise in matters in which the attorney cannot be expected to be informed. Matters of protective funds, life of the facility to be financed, anticipated availability of revenues, operating expenses, and other matters, are items in which the engineer should be consulted prior to completion of contract documents.

#### B. THE BORROWER

The borrower, prior to marketing a security issue, must have available a capital improvement program, the estimated cost of the improvements, a feasibility report outlining the necessity of the financing, and a comprehensive financial program. The borrower must make available in the information for bidders, or bond prospectus, an improvement and financial program as well as a presentation of his financial and legal position. The borrower looks to the consulting engineer for the preparation of the engineering and economic portions of these items. The consulting engineer generally prepares the original concept which brings about the scope of capital needs to be financed

and he prepares the economic studies of the feasibility of financing the project. The consulting engineer also recommends the basis and specific methods of obtaining revenues and other supporting sources of funds.

In serving the borrower the consulting engineer stakes his reputation on his representations in connection with the marketing of the issue. It is the engineer who presents the project and its cost and the part that the security issue plays in financing the project. If the engineer's estimates of capital improvements, or his projections of growth and subsequent revenues, expenses, maintenance, and other obligations, fail to materialize to the detriment of the ability of the security issue to pay out, then the engineer's reputation is affected. No other agent of the borrower can accept this responsibility, and the borrower looks to the consulting engineer for this purpose.

#### C. BOND UNDERWRITERS

Since the consulting engineer is the agent responsible for costs and economic projections indicating the feasibility of the issue, the bond underwriter looks to the engineer for information in the prospectus which will determine the marketability of the bonds and the risk element, and which will affect the rating which will be given to the bonds. The consulting engineer is often asked to furnish supplemental information, or to develop and explain points in regard to the showings in the prospectus. The underwriter's viewpoint of the issue is influenced by the experience and the reputation of the engineering firm certifying to the feasibility of the project.

#### D. LENDERS AND INSTITUTIONAL INVESTORS

The lenders and institutional investors are staffed with analysts of security offerings, or engage such services through rating agencies, and others. The analyst is particularly concerned with the elements making up the marketability of the bonds. Legal matters are highly important, and are expected to conform to practice in such matters. The engineering information offered is the variable which is a most important factor to the analyst, and again the degree of competency and reliability of the engineering information furnished will have a great deal to do with the marketability of the security issue in the eyes of the lenders and institutional investors.

The consulting engineer is often asked to meet with the representatives of the rating agencies, bond underwriters, and the institutional investors, to furnish additional information and to present facts and estimates with regard to the engineering economics of the issue.

#### E. OTHER TECHNICAL ADVISERS OR FINANCIAL ADVISERS

Where other advisers are involved, such as a financial adviser, the consulting engineer again is in the position of offering consultation on engineering matters which will supplement the financial or other capabilities of such advisers. In all of these matters the consulting engineer is an independent expert in his own field offering services of mutual benefit to others of the team to assist his client in making the best possible presentation of the security issue.



#### 4. REMUNERATION FOR CONSULTING ENGINEER'S SERVICES

Remuneration for engineering services in connection with security issue financing may be on various bases, depending on the circumstances. Where the project may be clearly defined, and the extent of work is known, the fee for the consulting engineer's services may be on a lump-sum basis. Often the engineer is engaged to prepare feasibility studies and data for security issue financing at a time when the extent of the project and the amount of services to be rendered cannot be fully defined.

In such instances it is advisable that the engagement be on a fee basis commensurate with the amount of service performed. In this instance, either a per diem or a cost-plus fee may be used, with or without a maximum limit, depending upon the situation.

The consulting engineer is often asked to review a project and offer opinions and recommendations with regard to the feasibility of a project which is being offered. At the initiation of the engagement, such reviews are not definable as to extent of services required since some reviews of work well prepared and well conceived may require comparatively little time on the part of the consulting engineer, but in instances of a marginal project extensive surveys, analysis, review, and revision may be required. On such occasions a variable cost basis will be of benefit of both the client and the consulting engineer.

The fee for consulting engineering services related to bond feasibility and financial studies is seldom tied to the bond fee, nor is it a percentage of the project construction cost, or of the amount of the security issue. Ordinarily, cost of engineering services bear little relationship to the amount of dollars involved in the financing. The fee will ordinarily be influenced by the complexity and scope of the project.

The consulting engineer's services should not be furnished on a contingent fee basis such such a basis of remuneration would give the engineer an interest in the feasibility of the project and could, at least in the eyes of others, affect his objectivity. For this reason, the basis of fees should be independent of the project feasibility or consummation. Consulting engineering services, taken on a firm basis, should result in lower fees than would be possible for the same engineer to undertake work on a contingent basis, since over a period of time the engineer's average fee basis would have to reflect the costs of contingent work, as well as engagements where the project sale was consummated.

## CHAPTER 13

### The Secondary Market in Municipal Bonds\*

#### 1. INTRODUCTION

The purchase of a new issue of municipal bonds from the issuer by an investment banker (or by a group of investment bankers in a syndicate) and the resale of the bonds by the investment banker or securities dealer constitutes the primary or new issue market. Any subsequent sale of the bonds by an investor or dealer is in the secondary market.

Like any other security there are times when the municipal bond must be disposed of before maturity. Heirs sell, institutions have different securities needs, and commercial banks see deposits and commercial loans rise and fall cyclically and so on. A change in money rates often will see an underwriting syndicate forced to break up and divide the unsold bonds among its members. What ever the reason, the bond returns to the market to be offered to the investigating public for the second time.

Hence, the term "secondary market." This secondary market is almost without exception far more voluminous at any given date than the primary (new issue) market.

#### 2. SIZE AND OPERATIONS OF THE SECONDARY MARKET

There are no accurate estimates of the annual volume of secondary market transactions in print but a check of many thoughtful and serious dealers and dealer banks who are active in this market leads us to the conclusion that approximately \$22 to \$25 billion is a reasonable estimate. When one considers that there are close to \$100 billion of municipal bonds outstanding and last year's new issue financing totaled \$11 billion this seems quite feasible.

An investor desiring to dispose of a block of bonds has a choice of a number of methods. If the amount is not large, his best method may be simply to sell the bonds to the investment banker from whom he purchased the bonds or to some other reputable dealer at a mutually satisfactory price. If the amount of bonds involved is large, the owner may prefer: (1) to give a selling order to a dealer with instructions to place the bonds with a municipal bond broker to sell at the best bid; (2) to give a selling order to a dealer to sell the bonds on an agency basis at a stated price; or (3) to contract with a dealer to advertise the bonds for competitive bidding over the dealer's name.

Municipal bond traders could be called secondary market specialists because traders are simply investment bankers who buy, sell, and trade

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municipal bonds in the secondary market. Trading transactions are usually purchases or sales of bonds for cash.

The bond trader must have an accurate knowledge of the location of blocks of particular bonds, both new issues and bonds available in the secondary market; current bond prices and local credit information, general market factors and recent developments affecting prices; the trend of the market; and the locations of buying interest for certain maturities or issues. The trading department of an investment banking firm usually trades alone, but occasionally a group of firms form a joint trading account to handle a large block of bonds which makes it desirable to spread the risk among two or more firms. Such joint trading accounts in the secondary market operate similarly to an underwriting account for a new issue, except that the agreement is often much less formal and in some cases is simply a verbal agreement.

Most investment banking firms with a municipal bond trading department fix a "position" limit which determines the amount ("position") of bonds which the department may hold at any one time. In small firms where the new issue underwriting and secondary market trading functions are handled by the same people a general "position" limit may be fixed on the aggregate amount of municipal bonds which the firm can hold in new issues and trading positions. These positions or holdings in the secondary market range from \$200,000 to well over \$25 million in the larger dealers and dealer banks.

Most of the dealers who maintain trading positions are capable and willing to bid their clients for their own accounts. They also bid other dealers and brokers competitively on blocks or even odd lots. This is one of the greatest contributions to the underlying strength in the municipal bonds secondary market.

The municipal bond broker confines his business solely to dealers and dealer banks. He never takes a position in municipal bonds, that is, he never buys municipal bonds for his own account, but always acts only as a broker for a commission. By accepted practice brokers trade bonds for a commission of one-eighth of a point (\$1.25 per \$1,000 bond) and one-fourth of a point (\$2.50 per \$1,000) on odd lots (\$10,000 or less) unless a different commission has been agreed upon previously.

It would not be unreasonable to assume that brokers trade 10 to 15 percent of the total volume in the secondary market or \$2½ to \$3 billion per annum.

Since both the trader and the broker must have up-to-the-minute information on current offerings of bonds and proposed new issues, they rely heavily on certain trade publications and rapid communication facilities. Many years ago most bond houses prepared a daily or weekly offering list of the bonds they owned and offered for sale, and traders and brokers were confronted with the task of tabulating the available bonds. Today the "Blue List" is published every business day carrying most of the current offerings of all dealer subscribers. The offerings (with prices) are listed under the general headings of each of the States with subheadings for certain special bonds. Thus, the "Blue List" is a central listing of all available municipal bonds that dealers are publicly offering, and it also carries advertisements of new issues. This of course includes unsold balances of recent new issues. Each day the "Blue List" carries the total of par value of all bonds listed the previous day and this figure is accepted as the best estimate of the floating supply of municipal bonds (although it is

recognized that dealers may withhold a part of their bond inventory from listing in the "Blue List").

The average daily volume offered in the "Blue List" for the first 4 months of 1966 was \$692 million.

The "Daily Bond Buyer," also published every business day, serves a similar purpose in presenting detailed information regarding proposed bond issues and the results of sales of new issues of municipal bonds, together with other statistical information regarding interest rates on municipal and U.S. Government bonds.

The "Daily Bond Buyer" has also offered on a subscription basis a wire service called "Munifacts." Via a private teletype circuit it helps to keep traders as well as underwriters advised on current news of pertinent importance in the municipal bond market.

One municipal broker maintains an extensive private teletype system for the simple purpose of exhibiting bonds which he has for bids to interested dealers. While this system covers over 200 dealers and dealer banks throughout the country, in reality it supplements the telephone and teletype calls which the broker generally must make in order to give complete service on the blocks of bonds which they have for sale.

### 3. CHANGES IN THE SECONDARY MARKET

How has the secondary market changed during the past 20 years? Using the same ratio exhibited in the first presentation, the new issues in 1946 comprised 1,876 issues with a dollar total of \$819 million; therefore it is not unreasonable to assume that the volume in the secondary was approximately \$1,800 million compared with our estimate of today's volume of \$22 billion or more. Incidentally, in 1965 new issues comprised 7,977 issues totalling a dollar volume of \$11,084 million. The number of firms advertising in the "Blue List" has risen from a total of 416 in 1946 to 664 in 1965 and we feel there are probably 100 additional firms who do not advertise in the "Blue List" and are active only in their own geographical areas. Once again their willingness to risk their own capital and effort to support the market on issues originating in their sections of our country are also strong factors contributing to the underlying strength of our market.

It is difficult once again to conduct any price research in the municipal bond secondary market since the tremendous number of issues, coupons and maturities prohibit any dollar price comparison. The range of "yields" or interest return (according to the "Bond Buyer Index") to the investor goes from a low of 1.35 percent in 1946 to a high of 3.56 percent in 1965.

Remember that "yields" go in inverse order to dollar prices.

The spread or profit margin on municipal bonds in the secondary market has declined from an average of \$12.50 per bond in 1946 to less than \$7.50 in 1965, in some cases as low as \$2.50. One should bear in mind that:

1. This is a potential gross profit and generally would be reduced by a reallowance to another recognized dealer of a fair commission for the latter's retailing bonds. This commission would in many cases be one-third or one-half of the potential gross profit.

2. Most municipal bonds are issues to be matured annually over a period of years. These "serial" issues are marketed at prices which

will return a specified yield to these maturities when bonds are offered in the secondary market they are usually offered for sale at prices competitive with current offerings of similar quality, quantity, and maturity.

#### 4. ENLARGING THE SECONDARY MARKET

The secondary market in municipal bonds time and again has given ample demonstration of its ability to support any liquidation from whatever source. Recently, in a period of steadily rising interest rates and no great cessation of new issues coupled with really substantial selling by larger holders it has absorbed this selling in orderly fashion.

We feel that perhaps the best way to expand the secondary market for municipals is to educate the investing public as to the liquid quality of this type of security, i.e., almost without exception State and municipal bonds can be sold on any given business day in a matter of minutes or if the customer prefers, in a few hours. In many cases "cash" trades can be effected thus arranging actual transferral of securities and funds as of the same date. A number of dealers have already taken steps in advertising by direct mail, newspaper, and magazine advertising in order to acquaint the public in this direction. The IBA through its education committee on municipal bonds has contributed greatly in fostering individual advertising.

## CHAPTER 14

### Municipal Bond Ratings\*

#### 1. NATURE—FUNCTIONS OF BOND RATINGS

In 1955 the volume of the tax exempt securities outstanding was \$42.8 billion. As of June 30, 1965, the total had reached \$97.8 billion. Annual new issue sales of \$10 or \$11 billion are now taken for granted.

Ratings have become indispensable as more issues come to the market. Each year, the dealer and investor in tax exempts is confronted by hundreds of unfamiliar names. They need to know the quality of a bond before they will purchase it. In some cases, firsthand information is readily obtainable. A simple issue, such as the tax secured bonds of a central school district in New York State, may be offered and explained through a nontechnical one-page circular. Many issues, however, because of their size, technical aspects and unusual security provisions require more study and detail. When an issue of Rocky Reach Hydro-Electric System revenue bonds was offered some 10 years ago, the offering was accompanied by a 68-page official statement, a 65-page volume of basic documents, three separate engineering reports totaling 130 pages covering the economic and financial feasibility and construction of the project, and a 40-page brochure describing the Northwest Power Pool. Clearly, few investors would have been willing or able to carefully investigate and evaluate the credit of the Rocky Reach offering. Rather, investors have come to depend upon the "quality" ratings issued by a number of major investment advisory services.

Ratings for municipal bonds are basically an outgrowth of corporate bond ratings. The first ratings for corporate bonds appeared in 1909 when Moody's began rating railroads. In 1914, Moody's expanded its services to cover public utilities and industrials. In 1922, Poor's began rating all industries, Standard Statistics and Fitch followed in 1924. Thus, four ratings were available for most large issues from 1924 through March 1941, when Poor's was merged with Standard Statistics. Three ratings were then usually available. Ratings were often not assigned by the agencies to small issues of little public interest, to private placements or situations in which sufficient information was not available.

Since 1909, when Moody's Investor Service began rating corporate bonds, ratings assigned by the various investment agencies have constituted an important device for evaluating the quality of corporate bonds. In the period 1924-35 ratings were assigned to over 98 percent of the total par amount of all straight corporate bond issues outstanding. Thereafter, with the growth of private placements (not usually rated by the agencies), the extent of coverage declined. Nevertheless,

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\*Prepared by James F. Reilly, partner, Goodbody & Co.

as late as 1944, more than 92 percent of the total par amount of all issues outstanding was rated by one or more of the agencies.

Moody's began rating municipal bonds in 1919; Standard & Poor's not until 1950. Until the great depression, Moody's rated most issues Aaa or Aa. Large numbers of defaults during the 1930's caused Moody's to reevaluate its standards and adopt a more conservative approach. It has been estimated that during the 1930's approximately 21½ percent of a total of 160,000 local governmental bodies were in default on some part of their interest or principal requirement. The aggregate loss of principal sustained by bondholders was approximately \$100 million, or two-thirds of 1 percent of total public debt. Of these, 48 percent of the number of defaulting issues in the 1930's were rated Aaa in 1929 and 78 percent of the defaulting issues were rated Aa or Aaa. The art of municipal bond analysis has come a long way since the predepression days when the rule of thumb was the number of railroads passing through a town. One railroad called for a single A, two for Aa and so forth.

Today, a determination of ability to pay involves analysis of a host of economic, social, political, and historic factors tempered in large measure by the analyst's own subjective, or even intuitive assessment.

Agency ratings are, in effect, graduated listings of bond issues according to investment quality; they are long run appraisals of the intrinsic quality of bond issues and reflect the ability of the issue to withstand default and capital loss over long periods of time in the future. Moody's ratings of municipal bond issues take the form of the same alphabet symbols as, and are thought to be comparable to, those which Moody's applies to corporate bonds. These range from Aaa—judged to be the finest quality—through Aa, A, Baa, Ba, B, Caa, Ca and finally C—issues regarded as having extremely poor prospects of ever attaining any real investment standing.

Though agencies do not divulge in detail the particular factors and weights used in assigning the individual ratings, it does appear from the manual descriptions that attention is given to such matters as earnings, coverage, lien, position, capital structure, and growth and stability of earnings. The primary aim of the ratings is to rank issues in the order of their relative freedom from default and capital losses arising therefrom. Thus, issues with the highest rating are those on which default is adjudged least likely to occur; issues with the lowest ratings are those already in default or on which default is imminent.

Moody's does not rate issues of less than \$600,000, nor obligations of enterprises without established earnings records, projects under construction, or issues where current financial data are lacking. More than 16,000 public bodies and 20,000 issues are presently included in Moody's Municipal and Government Manual.

The second major advisory service which rates municipal credits is Standard & Poor's Corp. S. & P. began rating municipals in 1950 and rates governmental bodies having at least \$1 million of debt outstanding, provided the availability of adequate information. Standard & Poor's also categorizes bonds into letter groupings. They are AAA (prime); AA (high grade); A (upper medium grade); BBB (medium grade); BB (lower medium grade); B, CCC and CC denote speculative issues with varying degrees of risk; C, DD, and D denote defaults. The investing public has come to consider Standard &

Poor's rating categories to be comparable to those of Moody's. Thus, Aaa is thought to be equivalent to AAA, Baa equivalent to BBB. Both Standard & Poor's and Moody's publish weekly booklets with data pertaining to municipal bonds. Unlike Moody's, Standard & Poor's does not publish a comprehensive annual volume of data, but does frequently issue publications of summarized financial data and ratings. Today Standard & Poor's rates in excess of 7,000 issues.

Dun & Bradstreet, Inc., does not rate municipal bonds per se. For many years, however, they have issued a series of credit surveys of the major issuers of tax secured bonds. In addition, the post-World War II growth of revenue-secured public bonds has been extensively analyzed by Dun & Bradstreet. In 1965, current information was available for more than 225 issues. Both tax and revenue-secured bonds are labeled either "above average," "favorable," "fair," "poor," etc., according to principal factors. For tax secured bonds these factors include economic or social characteristics, administration, debt obligations, and current operations. Revenue-secured bonds are examined according to the nature of the enterprise, sources of supply, debt obligations, debt structure, bond security, provisions, debt service coverage, debt history, rate structure, and policy operating trends, financial conditions, economic factors, and management. Numerical or alphabetical ratings are not given. It is Dun & Bradstreet's policy only to provide fullest information possible, and allow the investor to draw his own conclusions concerning an issue's overall quality.

Fitch Investor Service issues municipal bond ratings on a specific request basis.

Other agencies exist throughout the United States which either rate municipal bonds or provide detailed information on municipal credits, but each confines its activities within prescribed geographic areas. Among these agencies are the North Carolina Municipal Advisory Service, the Texas Municipal Advisory Council, and the Oklahoma Municipal Advisory Council.

## 2. EFFECT OF BOND RATINGS

### (A) ON INVESTORS

Ratings are usually given to large, widely known issues of municipal bonds prior to public sale by the issuer or underwriter. So attuned are investors to ratings, that almost automatically the rating will determine within rather broad limits, the interest rate the issuer must pay on its bonds. (For simplicity, all rated bonds are assigned to very few categories. As a result, there can be wide differences in yields available even within each category.) It is hardly necessary to note that the underwriter must keep this in mind. Many investors are bound by procedures and regulations which narrowly describe the breadth of investments possible. As the underwriter is aware of these requirements he can attempt to calculate his market for a particular issue. When a bond is not rated it becomes the task of the underwriter to evaluate the credit and convince his market that the bond is, in fact, comparable to one which has received a particular rating.

It is, of course, highly unlikely that all parties concerned with a bond will agree with the verdict of a rating agency. Issuers are often of the opinion that a rating is too low and interest costs unjustifiably



high. Underwriters investigate situations themselves, and commonly dispute ratings thought to be too low as well as these viewed as too high. The investor, once a purchase is made, only hopes the rating will not be lowered, for he too remembers the 1930's when events caused so many issues to be devalued and rating agencies adopt their lingering conservative attitudes.

Investor preferences are usually guided by ratings. In general, there is greatest demand for those issues rated A or better; unrated issues are preferred to those rated Ba or lower (unrated issues will usually carry higher yields than those rated issues believed to be comparable). A bonus awaits the analytical investor if he can take advantage of unrated issues or those which seem to be rated lower than justified by careful analysis.

As of June 30, 1965, commercial banks held more than \$31 billion of public bonds. One must, therefore, be careful to consider the preferences of investment officers and understand the rules and regulations under which banks are charged to operate by examining authorities.

National and State banks, which are members of the Federal Reserve System and Federal Deposit Insurance Corporation, must adhere to rules and regulations set forth by the Comptroller of the Currency. State banks which are not members of the Federal Reserve System are regulated by the FDIC. State banking authorities also examine banks within their States, and Federal Reserve banks may look into the affairs of State member banks within their respective districts. Most often, difficulties which could result from these overlapping jurisdictions are fortunately avoided by close cooperation among the several regulatory authorities.

In 1949, the Comptroller of the Currency, the FDIC, the Federal Reserve System and the Executive Committee of the National Association of Supervisory of State Banks issued a statement in which investment securities purchased by banks were divided into four categories:

Group I securities are marketable obligations in which the investment characteristics are not distinctly or predominantly speculative. This group includes general market obligations in the four highest grades and unrated securities of equivalent value.

Group II securities are those in which the investment characteristics are distinctly or predominantly speculative. This group includes general market obligations in grades below the four highest, and unrated securities of equivalent value.

Group III securities are those securities in default.

Group IV securities; stocks.

In an opinion of the Comptroller of the Currency it is stated that:

Although the rating services and investment counselors play an important part in the intelligent and informed acquisition of securities by banks, management may not under any circumstances delegate its responsibilities for maintaining a sound investment account to a rating service or any other individual or entity. Therefore, it is incumbent upon management to use all necessary and available sources of information to keep informed and the data obtained should be retained for ready reference.

Another opinion from the Comptroller regarding ratings states that:

Responsibility for proper investment of bank funds rests primarily with each bank's directors and this responsibility cannot be delegated to the rating services of others or be considered as having been fully performed merely by ascertaining that a particular security falls within a particular rating classification.

On the other hand, where securities are not included in one of the rating manuals, but the bank has evidence that the securities meet requirements as to marketability and are not distinctly and predominantly speculative, and the directors are satisfied that they meet the requirements of the statute and investment securities regulations, this office will not take exceptions to the securities merely from the standpoint of their rating (or absence of rating) in a rating manual. In the last analysis the burden of proof of eligibility rests upon the bank and such proof of eligibility should be on file in the bank and available to the examiner. However, it must be borne in mind that in determining the eligibility of securities not rated in one of the first brackets of recognized rating manuals, there will be a correspondingly greater burden upon the bank to satisfy the examiner that the particular security is in fact eligible.

In August 1957, the Comptroller of the Currency issued a ruling concerning bank investment in public bonds which:

(1) Specifies that an "investment security" must be a marketable obligation, i.e., it must be salable under ordinary circumstances with reasonable promptness at a fair value, and there must be present one or both of the following characteristics:

(a) A public distribution of the securities must have been provided for or made in a manner to protect or insure marketability of the issue; or,

(b) Other existing securities of the obligor must have such a public distribution as to protect or insure marketability of the issue under consideration;

(2) Provided, however, that special revenue obligations of States or local governments or of duly constituted public authorities thereof which possess a high degree of credit soundness, so as to assure sale under ordinary circumstances, with reasonable promptness at a fair value may also be considered to constitute investment securities even though they may not meet the above distribution standards;

(3) Prohibits the purchase of investment securities in which the investment characteristics are distinctly or predominantly speculative, or the purchase of securities which are in default, whether as to principal or interest;

(4) Requires that all investment securities shall be supported by adequate information in the files of the bank as to their investment quality. The Comptroller's Digest of Opinions states that retaining adequate financial information "is just as important with respect to general obligations of municipalities even though exempt from the restrictive provisions of Revised Statute 5136. The minimum information to be retained and analyzed in support of a proper credit judgment of municipal obligations is as follows:

(a) Statement of debt, including overlapping, floating and full faith, and credit obligations;

(b) Assessed valuation, including basis of assessment;

(c) Property tax rates;

(d) Tax collection record;

(e) Receipts and disbursements;

(f) Sinking fund operation and requirement;

(g) Future debt service requirement;

(h) Population (whether well balanced or otherwise);

(i) Economic background;

(j) Default record;

(k) Per capita debt.

Revenue bonds are not treated differently from general obligations, with the exception that not more than 10 percent of a bank's capital and surplus can be invested in the revenue bonds of a single issuer. According to the Comptroller, revenue bonds qualify as investment securities on the basis of actual earnings records. Where no historical earnings record exists, revenue bonds are ineligible for bank portfolios.

It would obviously be impossible for bank examiners to be familiar with the many thousands of public bond issues outstanding. It is, therefore, quite natural that, despite the Comptroller's exhortations, examiners should rely heavily upon the opinion of rating agencies. As a matter of expediency all public bonds rated Baa (BBB) or higher by either Moody's or Standard & Poor's have come to be eligible for bank investment as are all unrated but tax-secured bonds. All bonds rated below Baa and all unrated revenue bonds are ineligible for bank investment unless the banker has a file sufficient to convince a carefully scrutinizing bank examiner. Most large banks, as well as the major insurance companies are adequately staffed to make justifiable investment decisions independent of the rating agencies. The smaller bank must rely upon the rating agency. But, in any event, experience seems to indicate that most issues rated below Baa by both agencies are rejected out of hand for bank investment. The burden of proof is just too difficult to bear.

## (B) ON INTEREST RATE

The differences of a notch in a rating, or between similar rated and unrated issues is usually between 25 and 50 basis points. This, of course, depends upon prevailing market conditions. The following table shows the spread of yields on comparable new issues for six randomly selected days in 1966:

Rating date	Years to maturity	Issue	Rating	Yield
Jan. 10, 1966	20	Los Angeles sewer.....	Aa	3.50
Do.....	20	Burlington, Mass., various.....	A	3.60
Do.....	20	Fairfax County, Va., school office facilities.....	Baa	3.65
Feb. 7, 1966	20	State of Maine, various.....	Aaa	3.35c
Do.....	20	State of California, construction.....	Aa	3.60c
Do.....	20	State capital construction and improvement commission, Louisiana, sales tax revenue.....	A	3.80c
Do.....	20	Las Vegas Valley Water District, Nevada, water revenue.....	Baa	4.10c
Feb. 21, 1966	20	Durham, N. C., various.....	Aa	3.50
Do.....	20	Brandywine Area School Authority, Pennsylvania.....	A	3.85
Do.....	20	San Antonio, Tex., airport revenue.....	Baa	4.15c
Apr. 4, 1966	20	Riverside, Calif., electricity revenue.....	Aa	3.60
Do.....	20	King County, Wash., limited tax.....	A	3.75c
Do.....	20	North Bergen Township, N. J., sewer.....	Baa	4.00
Apr. 18, 1966	20	Los Angeles County Flood Control District, Calif.....	Aa	3.55
Do.....	20	Hempstead, N. Y., various.....	A	3.60
Do.....	20	State of Connecticut, highway.....	Aaa	3.37
Do.....	20	Western Kentucky State College, construction, education building, services D and E.....	Baa	4.00c
Apr. 25, 1966	20	East Lansing School District, Michigan.....	Aa	3.50
Do.....	20	Fairfield, Ohio, sewer system.....	N. R.	4.00c
Do.....	20	Washington Suburban Sanitary District Maryland, general construction, 1966, and water supply.....	A	3.60c
Do.....	20	Consumers Public Power District, Nebraska, Consolidated Eastern System, issue of 1966, revenue.....	Baa	3.90c

### 3. FACTORS TAKEN INTO ACCOUNT IN ASSIGNING RATINGS

"Ratings are not a reflection of bond maturity or marketability except in rare cases where the combination of maturity and marketability itself has a direct bearing on the prospects of payment. Security, or safety (relative certainty of the payment of interest and principal) remains as the principal, almost the sole ingredient of the ratings."<sup>1</sup> Agency ratings are not derived through the use of statistical formulas. Though statistics are used, great weight is given to numerous economic and nonfinancial factors which can effect the long-term future performance of the bonds. Ratings are reviewed periodically and changed whenever the rating agency is convinced that long-term risks have diminished or increased.

Bonds are appraised according to two basic risk factors. They are:

(1) *The risk that bond quality will be diluted by inordinate increase in debt.*—In recent years many States have come to relax or expand legal debt limits; special taxing districts and authorities are more frequently being used to finance projects beyond municipal limitations. For example, Moody's will be satisfied that bond quality will not be diluted by inordinate debt increases, only when municipal debt is modest and governmental facilities adequate for immediate and prospective needs.

(2) *The risk that ability to meet maturing bond principal and interest may be impaired under depressed business conditions.*—The investor wants assurance not only that a community is able to pay today, but also that it shall be able to meet obligations in the future. Though debt service may be secured by law, the whole community budget structure must be sound if a high credit standing is to be provided.

An appraisal of the role of management is still another important factor considered by rating agencies before a final rating is given. Management administrators present day policies and forms plans and policies which are to be followed in the future. Management's role is that of executor of debt proceeds and developer of the economy.

A city's history of debt policy and administration is a key to credit standing. How willing is management to face its responsibilities? How aggressive and how capable? Economic development very much depends upon the governmental environment created by city managers. To maintain and improve credit, agencies look to how well management attracts new business and residents and instills in them a social consciousness which can be called upon to shoulder community responsibilities. Communities must not be targets for exploitation. Business and residents will come when a community is known to give fair, equitable property assessments, provide adequate facilities, and insure that spending (and taxing) results only after careful and complete analysis.

Moody's expects effective management to be a good public relations officer. Information provided by managers is relied upon by bondholders, and for them, by Moody's. A former top Moody's official has stated, "Management is appraised by how well its reports tell its story, as well as by the story itself."

Moody's, particularly, asks management to tell its story through municipal records, histories, and statistics, as well as all documents

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<sup>1</sup> D. M. Ellinwood, former vice president, Moody's Investor Service, "Bond Ratings and Bond Prices," Public Works magazine, October 1965.

relating to the proposed bond issue. In addition, questionnaires are sent to municipal authorities which request figures on such things as assessed value of realty, personal property, net direct debt, tax collections over periods, etc. With this information, it is hoped that questions, such as the following, may be answered:

- (1) Is the population actually there, or is it only hoped for?
- (2) Is the total debt supportable by the present inhabitants under any foreseeable business conditions?
- (3) What additional financing is to be expected, either from the units under consideration or from any other unit taxing the same properties?
- (4) Are securities payable from unlimited taxes on all property in the community, or are there limitations which might prove troublesome at some future date?
- (5) Is there heavy dependence on a single plant or a single industry?
- (6) How vulnerable is the community to economic unsettlement?
- (7) Are there nearby towns in which the residents can find work?
- (8) Are industries likely to migrate and if so, are there factors that suggest the attraction of replacements?
- (9) Has the attitude of the administration been prodebtor or procreditor?
- (10) Do the laws and traditions lend themselves to debt evasion?

Since agency representatives have not been able to visit all of the many thousands of communities rated, these questionnaires and other information returned from the community must often form the basis for an eventual rating of that community's credit. Moreover, as the rating agencies readily admit, impressions and judgment, factors not susceptible to numerical measurement, always constitute an important part of that analysis which ultimately is transformed into a rating.

#### 4. BOND RATING OPERATIONS

Bond ratings are disseminated by the major rating services through their own publications as well as through the Bond Buyer and the Wall Street Journal. The publications prepared by Moody's and Standard & Poor's are as follows:

##### *Moody's:*

Municipal and Government Manual, published annually. Up-to-date information on financial characteristics and data on municipalities showing ratings where applicable. Also has descriptive paragraphs of municipalities.

Municipals and Government News, published biweekly. Includes details and ratings on securities offered, prospective offerings, Government and municipal calls, and a complete list of new calls.

Bond Survey, published weekly. Subjective opinions and analyses of corporates, municipals and foreigners.

Bond Record, published monthly. Covers outstanding issues and situations, and gives essential facts and statistical background.

##### *Standard & Poor's:*

Weekly Bond Outlook, published weekly. Subjective opinions and analyses of bond markets and trends, with respect to corporates, municipals and foreigners. Also includes list of current and proposed offerings with Standard & Poor ratings.

Municipal Bond Selector, published bimonthly. Gives essential data and statistics on outstanding municipal issues. Provides data on States, counties, and municipalities—population, debt, etc. In addition, historical and economic data are given. Such data provides for appraising bonds and comparing issues in various States or with similar characteristics.

Bond Outlook, published weekly. Covers only stocks and corporate bonds in subjective manner as well as market analyses and trends.

Moody's employs 13 people in its municipal bond department; Standard and Poor's employs 12.

Moody's charges subscribers \$150 per year for the Blue Book of Ratings (manual) and the Bi-Weekly Letter. The Bond Survey and Bond Record can be had for an additional \$150 per year.

Standard and Poor's charges \$240 per year for the Bond Outlook, the Weekly Bond Outlook, and the Municipal Bond Selector.

##### 5. RELATIVE IMPORTANCE OF BOND RATINGS

Almost despite the rating agencies, rulings from the Office of the Comptroller of the Currency, and their subsequent administration by bank examiners, have caused an overreliance to be placed upon rating agencies. Commercial banks are among the largest purchasers of municipal bonds and have increasingly bought according to ratings, spending less time evaluating issues themselves. This has caused some embarrassment to the rating agencies for, unwittingly, they have come to be looked upon by banks as well as by the public at large as "official agencies" serving a public rather than private purpose. But they are, of course, not official agencies. They receive no compensation from the U.S. Government nor from any of the communities rated. The cost of ratings is mainly covered through subscriptions and fees paid by customers for other services provided by the agencies. It is, therefore, natural that first responsibility be to these clients and not to the investing public. A high official at Standard & Poor's has said that, "since the amount which can be charged against any single rating is distinctly limited, we can only apply ourselves to those issues which are of interest to a number of clients or subscribers."

Moody's does not rate bonds outstanding in amounts less than \$600,000 nor bonds payable solely from special benefit assessments, bonds payable from the earnings of a hospital, university or other public, nonprofit institution which does not have an historical earnings record, or bonds in which there is a minimum of public interest. Moreover, bonds are not rated if sufficient information is not available. This includes bonds of municipalities which have failed to provide current information as well as bonds which are payable from the earnings of a project which has no earnings record. This last group includes all new construction projects, for engineers' estimates are not considered sufficient information.

Moody's and Standard & Poor's have, of necessity, limited their efforts to issuers with substantial bonded debt—a minimum of \$600,000, in the case of Moody's and \$1 million in the case of Standard & Poor's. It becomes apparent that as useful and important as these services are, a significant segment of the market is excluded by definition. There are over 92,000 issuers of municipal bonds. Moody's,

which considers more names because of its lower bonded debt requirement, had assigned approximately 20,000 ratings as of a recent date. This leaves thousands of issuers in the nonrated category.

The value of general obligation bonds sold in the 5-year period 1957 through 1961 amounted to \$26,752,648,000, with 29,019 issues. Approximately 70 percent of all issues rated by both Moody's and Standard & Poor's have similar ratings. These situations present no difficulties. But 20 percent of all issues receive higher ratings from Standard & Poor's, whereas 10 percent of all issues are given higher ratings by Moody's. Rated bonds accounted for 85 percent of the value but only 43 percent of the number of general obligations sold during this time. Thus, three out of five issues were not rated.

It might be assumed that the number of nonrated issues would decline in light of the increased volume mentioned previously. The fact that the average size of general obligation issues rose from \$868,000 in 1957 to \$1,102,000 in 1965, would give support to this theory. As a matter of fact, no such trend is apparent. The year to year variations are irregular; 1960, for instance, showed a higher percentage of nonrated issues than the 3 prior years. In 1965 nonrated bonds accounted for 12 percent of the dollar volume and 47 percent of the number of new issues.

#### 6. APPRAISAL OF RATINGS

Although professionals realize that the NR symbol beside a bond is in no way a reflection on its investment quality, the nonrated bond does pose special problems. Generally speaking, the nonrated bond is not as readily marketable as a rated bond. This consideration affects the issuer, the dealer and the investor. The average coupon on a nonrated bond usually falls between the "A" and "Baa" groups.

#### *Municipal bonds sold by issuer—1965*

	Amount (thousands)	Percent
States.....	\$2, 287, 654	20
Counties.....	715, 907	6
Municipalities.....	2, 534, 297	23
Townships.....	23, 102	2
School districts.....	1, 828, 130	16
Special districts.....	986, 992	9
Statutory authorities.....	2, 765, 094	24
Total.....	11, 141, 176	100

Source: IBA Statistical Bulletin, No. 38, March 1966.

*Municipal bonds sold, by type—1965*

[Thousands—par value]

Type	Amount	Number of issues
G.O.—unlimited tax.....	\$6, 730, 575	4, 515
G.O.—limited tax.....	429, 830	311
Total G.O.'s.....	7, 160, 405	4, 826
Utility revenues.....	1, 143, 610	594
Quasi-utility revenues.....	1, 542, 050	340
Special tax revenues.....	205, 062	56
Rental revenues.....	626, 004	260
Total revenues.....	3, 516, 726	1, 250
New Housing Authority.....	464, 045	127
Grand total.....	11, 141, 176	6, 203

Source: IBA Statistical Bulletin No. 38, March 1966.

Recently, agency ratings have come under close scrutiny by various members of the financial community. A major criticism has concerned the thousands of issues not rated each year. An official at Standard & Poor's has estimated the cost of rating a community to be in the neighborhood of \$2,000. It is understandable that Moody's and Standard & Poor's must make arbitrary decisions about which credits are to be rated. The rating agencies are not public institutions and are not supported as such. Unfortunately, however, they have come to be looked upon by the public as official agencies, for they do perform a public function. Often, the lack of a rating can seriously jeopardize a community's credit position. Funds may not be as readily available or as inexpensive to the unrated town as they are to its neighbor whose bonds do have a rating. A higher cost of borrowing is necessarily equated with a lesser amount of services a community may provide. Many feel that the agencies have neither the staffs nor the money necessary to insure that public financing always assured to qualified borrowers at equitable interest costs. Proper ratings will not alone determine this assurance, but no rating at all will certainly have a detrimental effect.

The rating agencies have also been criticized for the kind of information upon which ratings are based. The agencies are constantly asking municipalities to supply complete and current information. In the course of a year Moody's receives reports from over 12,000 municipalities. Ratings are not given and are withdrawn when information supplied is not complete enough so that an evaluation can be made. The agencies must, in large measure, rely upon fiscal officers. Unless an agency representative visits each community personally (an almost impossible task under present agency procedures), there can be no assurance that information supplied is complete and not biased, if only for lack of any uniform system for financial reporting among the several States. Two questions arise:

(1) With so many thousands of reports to cover and so few staff men to review them, can the agencies be sure that the information received is complete? Or can some information be left out and a rating still given?



(2) Can the agencies be sure that information judged complete is accurate?

A third criticism concerns possible conflicts of interest. Though Moody's and Standard & Poor's rate municipal bonds, this is not their primary function. Both are primarily investment advisory institutions. Thus, a conflict of interest may arise when a rating agency also acts as a financial consultant to governmental bodies. Moody's is known to operate in the dual capacity of rating agency and financial consultant.

Since public rather than private interests are involved, and since municipal finance is growing daily at increasing rates, the whole field of bond ratings deserves to be more closely studied to determine its proper value. As a first step, a group might be set up to develop a uniform municipal finance credit analysis. Such a group should include all interested segments of the market so as to produce an objective evaluation. The expected large volume market of tomorrow needs new ideas and new approaches today. We must be prepared to meet that expected larger volume. It is quickly coming upon us.

## CHAPTER 15

### Postwar Default Experience of Municipal Bonds\*

Post World War II experience with municipal bond defaults in the overall has been good. Prosperity, with some recessions, mild compared with the prewar period, and greatly improved municipal financial and debt management practices have made significant contributions to the generally favorable record. And this record has been achieved despite a rapid increase in the annual volume of municipal borrowing and a steadily mounting total of municipal bonds outstanding.

Even so, there have been municipal bond defaults, two monumentally big ones and a number of smaller ones. Unfortunate State legislation, poor planning, and unsound choice of a financing vehicle appear to lead the list of causes when there have been payment difficulties subsequent to the bond financing. Because these root causes remain, because of a continuing pressure on State and local governments to provide the services, and because of increasing experimentation in the invention of new and untried bond financing techniques, the likelihood is that municipal bond defaults will continue and, possibly, increase in numbers, if not in the relative portion of dollar value of municipal bonds outstanding.

#### GROWTH OF STATE AND LOCAL CAPITAL FINANCING

In the post World War II period bond financing by State and local governments has grown rapidly. Spurred by over a decade and a half of postponed capital construction and the demands of a prosperous economy, State and local units increased their annual borrowing from just under a billion dollars in 1946 to over \$10.3 billion in 1965, both amounts excluding refunding issues. These increases amounted to an average annual rate of growth of municipal bond issues of nearly 12.4 percent, considerably above the average annual growth of less than 4 percent in gross national product and well above the 5.3 percent average annual growth of corporate bonds. This rate of emission in new municipal securities brought the total volume of long-term debt outstanding to over \$92.4 billion by mid-1965, according to the Department of Commerce. With the increase in volume and number of issues the possibility of difficulties and defaults rose.

Pointing to possible future trouble was the change in the nature of security. From 1962 to mid-1965, for example, the volume of full faith and credit issues of State and local governments outstanding increased from \$48.3 billion to \$56.4 billion, an increase of 16.8 per-

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\*Prepared by Jackson Phillips, Assistant Director, and Roger Baum, Municipal Research Service, Dun & Bradstreet, Inc., with minor editing by committee staff.

cent. On the other hand, nonguaranteed issues outstanding increased from \$29.2 billion to \$37.8 billion, a rise of 29.4 percent. This shift, in evidence over the entire post World War II period, produced a mix of 60 percent full faith and credit obligations and 40 percent nonguaranteed obligations by 1965, compared with a mix of 62.3 percent full faith and 37.7 percent nonguaranteed in 1962. The persistence of this trend over a 20-year period is attributable to debt limitations and tax restrictions combined with continuing strong demand for capital construction. By devising means of nonguaranteed debt issuance, many State and local governments, and their elected officials, have found a way to satisfy their voters without unduly arousing their taxpayers. The significance of this practice for the future will be discussed later.

### WHAT IS A DEFAULT?

In general, a default is a failure to do what is required by law or by peculiar function, an omission of what ought to be done. More specifically, it is a failure to pay financial debts. Sometimes default is extended to mean any failure in fulfilling a contract or agreement. Thus, if a toll road agency agrees with its bondholders in a trust indenture to set toll rates at levels to produce a specified level of revenues, and does not do so, technically it is in default, even though it continues to meet all of its financial obligations. As used here, however, a default is the failure of a State or municipal government or other local subdivision to pay the principal of or the interest on its debt obligations at the time of maturity.

Information on State and local government bond defaults is not easy to obtain. Because of the generally good record of these bonds there has been little effort in the postwar years to compile comprehensive data on the subject, as was the case in the 1930's. So each default, by its very nature, is a secretive matter. If it is reported, details are minimized. Consequently, this discussion cannot be complete or pretend to be comprehensive. It covers only the better known situations and fragments of others.

### DEFAULT EXPERIENCE IN THE POSTWAR PERIOD

A search of primary sources of default experience reveals that in the postwar period there have been 30 instances of failure to pay principal or interest or both when due. By State, the reported defaults are as follows:

Arizona .....	2	Michigan .....	1
California .....	7	Nebraska .....	2
Florida .....	3	New Mexico.....	1
Idaho .....	1	South Carolina.....	2
Illinois .....	1	Tennessee .....	2
Kentucky .....	2	Vermont .....	1
Louisiana .....	2	West Virginia.....	3

In nearly every instance of default the bonds that were issued were special purpose, limited liability obligations. In several cases there was no loss to the bondholder as the cause of the difficulty was cured, or, in one instance, moneys were appropriated by a legislature to pay off the defaulted obligations. Most of the issues were relatively small in size and involved obscure, unknown issuers. Among the defaulting issuers at least two cases of alleged fraud were involved.

By purpose for which the bonds were originally issued the leading instance is toll road or toll bridge facilities. Classified by purpose or type of issue the defaulting situations were as follows:

Toll facilities (revenue)-----	7	Industrial aid (revenue)-----	2
Irrigation districts-----	6	Natural gas systems (revenue)---	2
Cities or counties-----	4	Fire district-----	1
Marina facilities (revenue)-----	3	College dormitory (revenue)-----	1
Water systems (revenue)-----	3	Aerial tramway (revenue)-----	1

The two major defaults in terms of dollar volume are the West Virginia Turnpike Commission, which issued a total of \$133 million revenue bonds, and the Chicago Skyway, which issued \$101 million. All of the other issues in difficulty were much smaller in size, all excepting a marina facility in California, the aerial tramway, and a toll bridge facility in West Virginia being under \$5 million in total amount of bonds issued. By far the type of security experiencing the most difficulty was the revenue bond, one supported solely by the revenues of a public or quasi-public service enterprise.

As to the seriousness of the defaults, 14 of the 30 cases cited resulted in the issuer filing for debt composition in the courts and loss to the bondholder on principal. All of the others, including so far the West Virginia Turnpike and the Chicago Skyway, represent failure to pay interest or principal when due. Some of these defaults in the latter category were only temporary in nature and have since been cured by resolution of the problem creating revenue insufficiencies. Others, including the West Virginia Turnpike and the Chicago Skyway, are situations in which some bondholders continue to nourish hope for an eventual cure. In these cases to date the bondholder has suffered little dollar loss, unless he was forced to liquidate his holdings at depressed market prices. Most of the temporarily defaulted issues pay interest on interest past due when paid.

#### MAJOR DEFAULTS

The major defaults in municipal securities in the postwar period have been associated with vehicular toll facilities and with revenue bond financing. Most conspicuous have been the West Virginia Turnpike, involving a dollar magnitude exceeded only by previous Russian and German Government bond defaults, and the Chicago Skyway. In both cases, high costs, limited liability financing, and low usage levels have combined to create the existing difficulty.

The West Virginia Turnpike is an 88-mile toll road extending from Charleston, W. Va., to Princeton, near the Virginia border. Financed by \$133 million revenue bonds payable solely from net revenues of the toll road, it was opened in 1954. By 1958, revenue deficiencies and complete absorption of financial reserves led to the postponement of the payment of the interest coupon due June 1, 1958, to October 1 of that year. Subsequent coupon maturities were also delayed, and now earning about 0.74 time interest requirements, the turnpike is behind on its last seven interest payments. Planned as a part of long distance route from the Great Lakes industrial area to the south, the turnpike serves its function only in small part. The hope is that eventual connection with Federal Interstate System will cure the basic difficulties of the turnpike.

The Chicago Skyway is a  $7\frac{3}{4}$ -mile facility, essentially a toll bridge, extending from the western terminus of the Indiana Toll Road into Chicago. It was financed by the issuance of \$101 million revenue bonds, payable solely from net revenues. In one instance the city of Chicago advanced \$2 million as a loan to prevent default, but the interest coupon due July 1, 1963, was not paid until October 25 of that year. Subsequent coupons have been delayed, and early in 1966 the city was behind in the payment of three coupon maturities. The skyway, now earning about 0.57 time interest requirements, suffers from competition from federally financed alternate routes and additionally bears the burdens of its high cost and low traffic generating capacity.

Other toll facilities which have suffered temporary default in the postwar period include two Nebraska-sponsored bridges across the Missouri River. In one case the approach routes were inadequate, in another the approach was nonexistent, the bridge having been built over dry land after the river shifted its course. Subsequent, but delayed, correction of the river's course cured the fundamental difficulty. A causeway in Florida suffered payment difficulties because of lack of development at one end, but this was eventually cured with the economic development of the area. Two toll bridges in West Virginia have also suffered payment difficulties because of limited liability financing, low usage, and economic depression in the local area.

In one State the basic law governing special district financing proved inadequate in preventing financial abuse and led directly to several instances of default. The charge was made, and probably justifiably, that "tax-exempt bonds are being used to give windfalls to promoters by paying for improvements which formerly have been considered an appropriate cost of a developer." This condition is not unique to this one State, and in varying degrees a number of States potentially face future difficulties from overly permissive legislation governing issuance of municipal bonds.

#### CONCLUSION AND OUTLOOK

A complete listing of local government bond defaults in the United States in the postwar period is not economically obtainable. A reasonable sampling, however, shows an excellent record for this type of security. Where there have been payment difficulties two major causes appear to prevail. One, there has been poor planning of the facilities constructed relative to the actual need for them. Two, judgment has been defective in the selection of the method of financing. The use of a limited liability obligation to finance economically marginal projects has been the cause of most difficulties. Tax-supported, general obligation financing has an unsurpassed record in the postwar period of prosperity. In a few cases default has resulted from allegedly fraudulent actions, but these are relatively few.

There are in the United States a number of State and local government bond issuers of a marginal nature, including general obligation issuers. These could be affected with financial stress and probable default in the event of a recession of any severity. Assuming the continuation of the general level of prosperity prevailing in the postwar period, however, difficulties of this kind appear minimal. More likely, municipal defaults will continue as they have in the postwar

period, few in number, scattered geographically, and usually traceable to a fairly obvious flaw in legislation or planning.

Difficulties with marginal projects financed through limited liability obligations very likely will continue and may worsen. Though not in default now and still possessing some financial reserves, three projects each with substantial debt are now considered by some to have a dubious financial future. Again these are net toll revenue bonds and include facilities in Massachusetts, Virginia, and New Jersey. Continued financing of high cost marginal facilities by use of limited liabilities and without adequate safeguards is certain to create additional burdens.

Continued experimentation with new types of financing could possibly add a new dimension of defaults at some future date. Industrial aid financing by local governments has increased markedly in the last few years. And a real danger could arise with a future extension of this device, particularly with the use of revenue bonds. The practice has become an increasingly competitive one, and when revenue bonds are employed, the municipal security essentially is only as sound as the company for which the plant is built. Borderline companies, then, could pose real future difficulty for a local government eager to expand its economic future and unable to assess properly the company's future.

## CHAPTER 16

### Credit Problems of Small Municipalities\*

#### THE MARKET FOR BOND ISSUES OF SMALL MUNICIPALITIES

Long-term municipal debt outstanding totals in excess of \$29 billion.<sup>1</sup> In the 9-year period 1957-65, such debt increased by approximately \$1.4 billion a year, and there is every indication that municipal debt outstanding will continue to increase at no less a rapid pace in the future.

With few exceptions, the Nation's cities, like its citizens, are compelled to borrow in order to obtain funds for the construction and acquisition of capital facilities. However, unlike private citizens who can secure loans with relative ease at fixed interest rates, small municipalities, particularly those having less than 10,000 inhabitants, often are penalized, solely on the basis of their size, in the rate of interest they must pay. This occurs in spite of the fact that the degree of credit risk involved is not an intrinsic characteristic directly attributable to size alone.

The average annual net interest costs of bonds in the A, B, and un-rated categories for municipalities having less than 10,000 inhabitants and for municipalities having 10,000 to 250,000 inhabitants are compared for the 5-year period 1961-65 in table I on the following page. In each year, the average annual interest costs paid by smaller municipalities exceeded the average costs paid by the larger municipalities.<sup>2</sup> Application, on a monthly basis, of the Bond Buyer index to the various categories of bonds shows that the time of sale is not a significant factor contributing to the consistently lower net interest costs enjoyed by the larger municipalities. Table II shows the difference, expressed in basis points,<sup>3</sup> between the average annual interest costs of small- and medium-sized municipalities as a deviation from the Bond Buyer index. In each case, the adjusted interest costs for the medium-sized municipalities are less than those for the small municipalities. The difference varies from 4 to 79.9 basis points, depending upon the year and the type of bonds.

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\*By David R. Berman and Lawrence A. Williams of the National League of Cities (formerly the American Municipal Association), with minor editing by committee staff.

<sup>1</sup> U.S. Bureau of Census, "City Government Finances in 1964-65," *Governmental Finances/GF No. 5* (Washington, D.C.: U.S. Government Printing Office, 1966), p. 6. Total long-term debt outstanding for all local government units amounted to \$68 billion in 1965. U.S. Bureau of Census, "Governmental Finances in 1964-65," *Governmental Finances/GF No. 6* (Washington, D.C.: U.S. Government Printing Office, 1966), p. 28.

<sup>2</sup> The Investment Bankers Association of America very kindly provided the raw data, on a monthly basis, for the preparation of table I. The data was converted to an annual basis because the number of issues marketed in some months provided too little material upon which to base conclusions. (See app. A at the end of this chapter for a presentation of the data on a monthly basis.)

<sup>3</sup> A "basis point" is one-hundredth of 1 percent of the bond yield. Each basis point constitutes \$0.10 in interest per year on a \$1,000 bond. On a \$500,000 bond issue, maturing serially over 20 years, an increase of 25 basis points in the interest rate increases interest payments by \$13,125.

TABLE I.—Average annual net interest costs of A, B,<sup>1</sup> and unrated bonds for small- and medium-sized municipalities, 1961-65

Year and type of bonds	Average maturity							
	Under 10 years				10 to 19 years			
	Population under 10,000	Number of issues	Population 10,000 to 250,000	Number of issues	Population under 10,000	Number of issues	Population 10,000 to 250,000	Number of issues
1961—A	3.023	60	2.967	428	3.451	126	3.335	658
B	3.149	26	3.115	345	3.788	115	3.635	792
Unrated	3.338	141	3.127	75	3.816	181	3.721	78
1962—A	2.757	36	2.668	371	3.086	91	3.030	541
B	3.543	26	2.749	290	3.386	99	3.188	599
Unrated	3.128	175	2.906	78	3.453	186	3.326	68
1963—A	2.861	42	2.732	407	3.066	92	3.021	611
B	3.036	41	2.832	374	3.361	104	3.176	761
Unrated	3.047	204	2.809	76	3.439	277	3.279	68
1964—A	3.038	60	2.944	357	3.234	118	3.180	589
B	3.315	26	3.055	267	3.509	118	3.339	651
Unrated	3.287	181	3.168	93	3.598	267	3.429	104
1965—A	3.169	48	3.093	332	3.335	77	3.233	613
B	3.376	36	3.184	293	3.503	89	3.386	666
Unrated	3.434	151	3.289	84	3.659	289	3.501	141

<sup>1</sup> Bonds rated Aaa, Aa and A and Baa, Ba and B, respectively.

Source: Investment Bankers Association of America.

TABLE II.—Average annual deviation of net interest costs from bond buyer's index for A, B, and unrated bonds for small and medium-sized municipalities, 1961-65

Year and type of bonds	Average maturity under 10 years		Difference <sup>1</sup>	Average maturity 10 to 19 years		Difference <sup>1</sup>
	Population under 10,000	Population 10,000 to 250,000		Population under 10,000	Population 10,000 to 250,000	
1961—A	-0.421	-0.493	7.2	0.008	-0.121	12.9
B	-.305	-.374	6.9	.328	.178	15.0
Unrated	-.079	-.334	25.5	.372	.280	9.2
1962—A	-.384	-.470	8.6	-.070	-.115	4.5
B	-.408	-.391	79.9	.242	.040	20.2
Unrated	-.019	-.153	13.4	.303	.215	8.8
1963—A	-.327	-.427	10.0	-.087	-.127	4.0
B	-.141	-.327	18.6	.213	.025	18.8
Unrated	-.111	-.340	22.9	.278	.133	14.5
1964—A	-.182	-.265	8.3	.018	-.039	5.7
B	.085	-.149	23.4	.288	.131	15.7
Unrated	.076	-.047	12.3	.385	.214	17.1
1965—A	-.091	-.170	7.9	.059	.000	5.9
B	-.101	-.072	17.3	.247	.153	9.4
Unrated	.145	-.024	16.9	.398	.246	15.2

<sup>1</sup> Expressed in basic points.

Source: Calculations based upon data provided by the Investment Bankers Association of America and from the Bond Buyer's Index of 20 Municipal Bonds.

#### FACTORS CAUSING DISCRIMINATORY TREATMENT

Several interrelated factors tend to cause such discriminatory treatment. First, small municipalities market bond issues at infrequent intervals, and these issues usually involve only a limited number of bonds of relatively small total dollar amounts. However, overhead costs incurred in marketing an issue of small dollar amount is not proportionally less than the cost incurred in marketing a sizable issue. As a consequence, market costs per bond are higher for small issues,



because the "spread"<sup>4</sup> is greater for a small issue than it is for a large issue. Major bond buyers, such as insurance companies and commercial banks, usually prefer to purchase bond issues that are large in total dollar amounts because larger issues are generally easier to trade. Thus, bond issues of small municipalities are relatively more costly to market, and less attractive to investors, than are the issues of large municipalities. Second, large municipalities generally can provide quickly and accurately the detailed financial information needed by bond dealers and buyers for an analysis of investment possibilities. Third, small municipalities usually cannot afford to employ the experienced legal and financial advisers necessary to guide the bond issue through the intricacies of the bond market smoothly and effectively. Finally, the influential bond rating services, that evaluate municipal fiscal responsibility, usually will not rate bonds of political subdivisions unless such units have at least a specified minimum of debt outstanding.<sup>5</sup> This policy probably reflects the general lack of interest in the bond issues of small municipalities, and the difficulty in securing detailed financial data from such units. The absence of a rating tends to decrease still further bond buying interest.

The lack of interest by the large, nationwide investors forces small municipalities to seek a market for their bonds in the immediate area, competing for the limited amount of local investment capital with other investments that yield greater returns than do tax-exempt municipals. A large number of small issues are sold to local bankers who feel that their local government should "get at least one decent bid."<sup>6</sup>

At other times:

A local investor with little expert investment knowledge and considerable mistrust of the central capital markets may be quite willing to invest in local municipal obligations even though his use of tax exemption is slight. Local pride and sentiment may support such action. \* \* \*

Usually only a few people in the community are in a high enough income bracket to take advantage of the tax-exempt feature. Thus, issues marketed locally frequently must offer a yield approximating the yield offered by taxable securities.<sup>8</sup>

#### THE NEED FOR ASSISTANCE

Certain factors affecting the sale of municipal issues, such as the availability of investment capital, the relative attractiveness of municipal bonds vis-a-vis common stocks, etc., are beyond the direct control of local officials. At the same time, several steps to improve the marketability of their bond issues can be taken by smaller municipalities. For example, accurate compilations of municipal credit and related financial data over extended periods of time should be maintained and made available to the bond market. A capital improve-

<sup>4</sup>The "spread" is the difference between the amount offered for the issue by the underwriters and the price of the issue to the issuer, and serves as compensation to the underwriters for the costs and risks of floating the issue.

<sup>5</sup>Moody's has followed a policy of not rating debt of governmental subdivisions unless debt outstanding totals \$600,000 or more. Standard & Poor's does not rate governmental subdivisions having less than \$1 million debt outstanding.

<sup>6</sup>Roland I. Robinson, "Postwar Market for State and Local Government Securities, National Bureau of Economic Research" (Princeton, N.J.: Princeton University Press, 1960), p. 104.

<sup>7</sup>Ibid., p. 80.

<sup>8</sup>Ibid., p. 104.

ments program, backed by a sound financial plan, should be developed and utilized to schedule and to coordinate expensive and long-lasting public works projects. In addition, small municipalities should attempt to time the sale of bond issues to favorable market conditions and to advertise any special characteristics that may indicate that the community is stable and a "sound" credit risk.

Smaller units of local government seldom have staffs versed in the specialized techniques involved in preparing and selling bond issues. Being a governmental official in a small municipality is often a part-time job. Many small localities do take advantage of consulting engineers and architects, bond counsels, and financial advisers. Others, however, do not enjoy ready access to these qualified advisers, or fail to recognize their importance.

There are many ways in which State and Federal Governments could assist small municipalities market their securities. A survey conducted in 1961 by the National League of Cities (then the American Municipal Association) pointed up that most municipalities felt that such assistance would be of value in: (1) preparing economic and financial data to support bond sales; (2) explaining terms and conditions governing loan repayment, establishment of reserves, and issuance of additional bonds; (3) comparing advantages of revenue and general obligation bonds, term and serial bonds, and factors affecting annual debt service costs; (4) explaining techniques and procedures involved in marketing bonds; and (5) scheduling and programming capital improvements.<sup>9</sup>

State and Federal Government responsibility for providing assistance and for strengthening the position of small local governments in the municipal bond market has often been expressed. The Advisory Commission on Intergovernmental Relations, for instance, has concluded:

States have an inescapable interest in and concern with the quality of the debt management practices of their local governments. Each community's practice is a matter of statewide concern because a blemish on its credit standing, perhaps on only a single bond issue, could affect the money markets' judgment of local bond issues in that State. The dramatic increase in local borrowing since the end of World War II also underscores the need for State concern with local debt practices.<sup>10</sup>

Federal assistance has been chiefly given through the public facilities loan program which, as amended in 1961, authorizes the establishment of technical advisory services to assist municipalities and other political subdivisions and instrumentalities in budgeting, financing, planning, and constructing community facilities.<sup>11</sup>

The remainder of this chapter will focus on what State and Federal Governments have done, and could do, to aid small municipalities prepare and market their bond issues.

<sup>9</sup> U.S. Congress, House Subcommittee on Housing of the Committee on Banking and Currency, Housing Act of 1961, 87th Cong., 1st sess. (Washington, D.C.: U.S. Government Printing Office, 1961), pp. 878-884.

<sup>10</sup> Advisory Commission on Intergovernmental Relations, "State Technical Assistance to Local Debt Management" (Washington, D.C.: U.S. Government Printing Office, January 1965), p. 1.

<sup>11</sup> Sec. 501(1) of Public Law 87-70, which added sec. 207 to the public facility loans legislation, title II of the Housing Amendments of 1955.

## THE ROLE OF THE STATES

## STATE CONCERN WITH MUNICIPAL CREDIT

State concern with municipal credit historically has been of a negative nature as evinced by the general imposition of constitutional and statutory restrictions. These restrictions generally involved establishment of municipal debt limits at fixed percentages of the assessed valuation, and requirements for voter approval of bonded debt, often by an extraordinary majority. Problems created by restrictive debt limits have been adequately treated elsewhere,<sup>12</sup> and, therefore, are not included in this discussion. It is sufficient to say that these debt restrictions frequently have impeded efforts by municipalities to provide needed community facilities. As a consequence, such restrictions have tended to encourage proliferation of independent, overlapping single-purpose districts, and utilization of costly and circuitous financing methods.

## STATE ADMINISTRATIVE SUPERVISION

Several States have attempted to provide guidance and assistance to municipalities by assigning responsibility for exercising administrative supervision over municipal debt, borrowing, and related fiscal operations to specific State agencies or officials. In such cases, the designated agencies, or officials, are responsible for examining, on a routine basis, the legality of proposed issues, and for assisting municipalities in eliminating inadequate or defective local borrowing procedures.<sup>13</sup> This approach can be constructive and flexible; in some States it has provided positive assistance to small municipalities attempting to market bond issues. The total kind and degree of supervision and assistance provided municipalities by such agencies varies from State to State. The following examples describe the assistance provided by six such State agencies with respect to municipal borrowing.

*Michigan.*—The Michigan Municipal Finance Commission was created in 1943 to “protect the credit of the State and its municipalities.”<sup>14</sup> The commission has been given the power to—

1. Approve or deny proposed municipal loans;
2. Aid, advise, and consult with municipalities relative to proposed or outstanding indebtedness;
3. Examine municipal books and records to determine if they comply with debt provisions established by the commission, by statute, by charter, or by ordinance;

<sup>12</sup> See, for example, Advisory Commission on Intergovernmental Relations, “State Constitutional and Statutory Restrictions on Local Government Debt” (Washington, D.C.: U.S. Government Printing Office, 1964).

<sup>13</sup> The attorney general’s office in Arizona, Kansas, New Mexico, Oklahoma, Texas, West Virginia, and Wisconsin perform this function. In Louisiana and Michigan, the State attorneys general are called upon to examine the legality of local issues in special cases, and in Missouri and Nebraska the State auditor has this responsibility. The same responsibility is assigned to the tax commissioner in Connecticut; the local finance office, department of finance, in Kentucky; director of accounts, department of corporations and taxation, bureau of accounts, in Massachusetts; the State bond attorney in Mississippi; the local government commission in North Carolina; the bureau of municipal affairs, department of internal affairs, in Pennsylvania; and the division of local and metropolitan government, department of administration in Rhode Island.

<sup>14</sup> Act 202, Public Acts of 1943.

4. Adopt rules and regulations and enforce compliance with such orders and with provisions of State law, charters, ordinances, and resolutions with respect to indebtedness, including the levy and collection of taxes for debt purposes, and the segregation, safekeeping, investment, and application of money for the payment of debt.<sup>15</sup>

Local units are advised with respect to the comparative advantage of revenue and general obligation bonds, factors affecting debt service costs, and techniques and procedures in marketing of bonds.

The commission collects data relative to interest rates, maturities, number of bids, and bond ratings on each bond issue. This information is not currently available for distribution.<sup>16</sup>

*New Jersey.*—The division of local government in the department of the treasury has general regulatory control over the fiscal affairs, including borrowing, of local governments in New Jersey. The duties of the division include:

1. Receiving and filing copies of annual audits of all municipalities and counties;
2. Receiving, filing, and certifying all local budgets;
3. Receiving, filing, and certifying all annual and supplemental debt statements;
4. Preparing an annual report of comparative financial statistics of local government units.<sup>17</sup>

The division and the local government board, a semiautonomous agency within the division, undertake studies in the field of municipal finance; publish reports, guides, and statistical data on local government finances; hold hearings on the extension of credit for school districts and municipalities; and give formal financial advice on written request from local units.

The primary activity of the division with respect to the marketing of municipal bond issues is the promulgation of rules and regulations for use by registered municipal accountants licensed by the State board of public accountants. Such accountants are employed by local units to prepare annual reports and to serve as financial advisers. They assist in the preparation of brochures prepared in connection with the sale of bonds and in the establishment of sound debt service retirement schedules.

Small municipalities in New Jersey have had little difficulty marketing bond issues. Usually such units receive bids from several bidders, and interest rates received generally compare favorably with those received by other jurisdictions.<sup>18</sup>

*North Carolina.*—The North Carolina Local Government Commission has two major responsibilities with respect to marketing municipal bond issues. First, the commission must approve all municipal bond issues and notes before issuance, and, second, it is responsible, by law, for marketing all municipal securities.

<sup>15</sup> See Municipal Finance Commission, *Municipal Finance Acts and Rules and Regulations* (Lansing, Mich., no date), ch. II.

<sup>16</sup> Letter from E. Boomie Mikrut, director of Michigan Municipal Finance Commission, Mar. 29, 1966. In addition to the services provided by the Michigan Finance Commission, the Michigan Municipal League offers to all municipalities in the State a financial consulting service on a fee basis. The service includes a complete advisory program with respect to marketing bond issues.

<sup>17</sup> George C. Skillman, division of local government, "New Jersey Municipalities," vol. XLI, No. 7 (October 1964), p. 11. Mr. Skillman was director of the division of local government.

<sup>18</sup> Letter from W. G. Coward, acting director, division of local government, Apr. 5, 1966.

Proposed municipal bond issues are reviewed by the commission with respect to both legality and fiscal burden imposed upon the municipality. In the investigation to determine the economic ability of a local unit to support a proposed bond issue, the commission staff gathers and analyzes data on all local financial matters, including existing local debt, tax levies, and assessments. The investigation seldom leads to the rejection of a proposed bond issue due, in large part, to the fact that municipalities, in anticipation of this review, consult frequently with the commission in the preliminary planning stages.<sup>19</sup>

State law requires that marketing of municipal securities shall be performed by the local government commission. In this connection, the commission publishes the prospectus providing extensive information about the local securities, and maintains financial files from which prospective buyers can secure additional information. Centralized control over the sale of bond issues is reported to result in substantial savings to municipal units because—

1. Bond issues can be held for sale until market conditions appear to be most favorable;
2. Bond issue sales can be given wider publicity by a State agency than is usually possible by a small municipality; and
3. Coordination of sales and wider publicity facilitates maximum participation of interested prospective buyers.<sup>20</sup>

The commission, in addition to these activities, offers assistance on capital improvements programing, regulates sinking fund management, oversees refunding operations and default adjustments, and supervises municipal accounting and reporting.

*Pennsylvania.*—State law in Pennsylvania requires that general obligation bonds be approved by the department of internal affairs before they may be delivered to the purchaser. The bond division of the bureau of municipal affairs within the department examines all features of the bond issue to determine whether provisions of the State constitution and municipal borrowing act have been met. If the requirements have not been met, approval is withheld until the defects are corrected.

The bond division assists municipalities in all legal matters relative to the issue, including the preparation of ordinances, resolutions, model proceedings, and related documents, and distribution of such material to municipal attorneys upon request. The division prepares a comprehensive checklist of all of the proceedings that must be submitted by the municipality for approval. The checklist and the model proceedings provide guidelines for local solicitors in the preparation of bond issues and prospectuses. These items are included in a publication prepared by the bond division entitled "A Guide to Pennsylvania's Municipal Borrowing Act," as are an analysis of State laws related to borrowing and sample election notices, bonds and bond coupons, and financial statements. In addition, the division will review drafts of proceedings, upon request, for errors or omissions before enactment, and before advertising costs are incurred. Most local solicitors are reported to take advantage of this offer, and, as a con-

<sup>19</sup> See Advisory Commission on Intergovernmental Relations, footnote 6, *supra*, pp. 21-22. A detailed account of the activity of the commission may be found in Robert S. Rankin, "The Government and Administration of North Carolina" (New York: Thomas Y. Crowell Co., 1955).

<sup>20</sup> Rankin, *op. cit.*, p. 386.

sequence, embarrassing and untimely delays in the delivery of bond issues to purchasers are avoided. Although the division is prepared to assist in any legal problems, it does not have the facilities or manpower to advise municipalities on marketing techniques or to prepare prospectuses.

The bond division maintains records of all general obligation bonds sold in Pennsylvania together with information relating to net interest costs, maturities, and conditions of sale. However, this information is not published in a report form.

The assistance offered by the bond division of this Pennsylvania department can be supplemented readily by access to private counsel. A number of law firms in Philadelphia and Pittsburgh specialize in marketing municipal issues. One or the other of these cities is accessible from any part of the Commonwealth, and, therefore, professional assistance is readily available if required, or sought, by a municipal solicitor. As a consequence, most bond issues marketed by Pennsylvania municipalities are done so under the supervision of a bond counsel.<sup>21</sup>

*Tennessee.*—Financial assistance in Tennessee is provided local units, on request, by the division of local finance in the office of the comptroller of the treasury. Services provided by the division, for a very nominal charge, include the preparation of economic and financial data, resolutions, notices of bond issue sale, prospectuses, and related technical assistance. Also, the division staff will (1) advise and assist with respect to debt retirement programs, (2) attend each bond sale, and (3) assist in arranging for the printing and delivery of bonds. The division emphasizes to local officials the importance of making available to the investment community accurate and complete financial reports and other requested data in order to secure high credit ratings that result in reduced costs.<sup>22</sup>

*Virginia.*—The Virginia State Commission on Local Debt offers substantial assistance to local units. It is empowered to advise local governments, on request, with respect to "all matters relating to the planning, preparation, and marketing" of local bonds, and to "assist the political subdivision in the sale of such bonds."<sup>23</sup> The commission, at no charge to the municipality, offers aid in all preliminary financial planning, including a determination of the ability to retire general obligation bonds from a tax levy and revenue bonds from the income of self-sustaining enterprises. It assists in the preparation of bond maturity schedules, prepares and prints bid forms, advises on the best time to offer bond issues for sale, handles the sale of the bond issue, and recommends acceptance or rejection of the best bid. In addition, the commission prepares, prints, and distributes a comprehensive brochure setting forth all information relating to each bond issue to approximately 300 investment bankers east of the Mississippi; and answers all inquiries from investment bankers relative to bond issues.

The commission, however, does not provide architectural, engineering, or legal services, nor does it extend financial aid for the performance of such services. Each political subdivision must pay the cost

<sup>21</sup> Letter from Ellen Marie Coggins, Esq., chief of bond division of bureau of municipal affairs, department of internal affairs, Commonwealth of Pennsylvania, Harrisburg, Pa., Apr. 4, 1966.

<sup>22</sup> Letter from W. R. Snodgrass, comptroller of the treasury, State of Tennessee, Apr. 12, 1966.

<sup>23</sup> Ch. 177 of the acts of the assembly, 1950.

of these services, as well as the costs connected with the publication of the notice of sale in a newspaper and the printing of bonds.<sup>24</sup>

With respect to Virginia, the Advisory Commission on Intergovernmental Relations found:

Local governments have profited from the activities of the Virginia Commission on local debt in the form of better prices for their bonds and some savings in consultants' fees. The centralization of local bond sales intensifies the competition for the offering, and the availability of detailed information on local finances tends to upgrade credit ratings.<sup>25</sup>

#### OTHER FORMS OF STATE ASSISTANCE

*Standards for notices of sale.*—A number of States prescribe minimum standards for data to be included in official statements on local debt offerings. New Jersey, for example, requires that the notice of sale for a bond issue contain the following basic data: (1) the principal amount, date, denomination, and maturities of the bonds offered for sale; (2) the rate or rates of interest to be borne by the bonds; (3) the terms and conditions of public sale; and (4) such other information as may be required by the governing body.<sup>26</sup> New Jersey law further provides that:

A public sale of bonds shall be advertised at least once \* \* \* seven days prior \* \* \* [to the sale] \* \* \* in a newspaper qualified for publication of a bond ordinance of the local unit and in a publication carrying municipal bond notices and devoted primarily to financial news or the subject of State and municipal bonds and published in the City of New York and New Jersey.<sup>27</sup>

New York statutes assign to the State comptroller responsibility for regulating the form, publication, and mailing of bond issue sale notices. Minimum information required by law to be contained in such notices includes: designation of the place where bids will be received and opened, the maximum rate of interest to be paid, conditions of sale, and method of bidding. Additional information may be required by the comptroller, if he deems it advisable.<sup>28</sup> In addition, the comptroller prescribes the standards and basic information that local governments must embody in a bond issue prospectus. Basic facts to be contained in each such prospectus include: a description of the community, financial experience for the preceding 5-year period, detailed information on tax collection, a summary statement of the assets of various city funds, a schedule of bond maturities, descriptive analysis of the finances of overlapping and coterminous government units, and related historical financial data.

*Publication of data.*—Approximately half the States require local governments to file debt reports as part of the auditing process. However, with few exceptions, States that do gather audit and financial reports fail both to "prescribe standard reporting classifications \* \* \*" and to " \* \* \* disseminate the information they gather in any meaning-

<sup>24</sup> "State Aid to Counties and Municipalities in Debt Services," address by J. Gordon Bennett, Virginia auditor of public accounts and member of the Virginia State Commission on Local Debt, municipal finance commission, annual seminar, Lansing, Mich., May 8, 1962.

<sup>25</sup> Advisory Commission on Intergovernmental Relations, *supra*, note 5, p. 58.

<sup>26</sup> "New Jersey Statutes Annotated," 1965 cumulative supplementary pamphlet, title 40A: 2-31.

<sup>27</sup> *Ibid.*, title 40A: 2-30.

<sup>28</sup> "Consolidated Laws of New York Annotated," book 33, secs. 57.00-59.00.

ful way on a current basis.”<sup>29</sup> Leading examples of sound reporting systems are found in California, New Jersey, and New York. These States not only require local governments to file detailed financial reports on standard forms, but they publish local financial data in detail. In California, for example, annual financial reports for local governments are issued by the State comptroller and contain detailed information on bonded debt, assessed values, capital outlays, and such other fiscal data as an investment analyst might require.

*Capital improvements programing.*—A capital improvements program constitutes an effective tool for a municipality to employ in financial planning and debt management, and for underwriters, investors, and security analysts to utilize in evaluating anticipated municipal expenditure patterns and fiscal capacity. Assistance in the preparation of capital improvement programs is available to municipalities in several States.<sup>30</sup> New Jersey goes so far as to make the adoption of capital improvement programs mandatory. Since June 15, 1964, all municipalities and counties in that State undertaking any capital improvements have been required to adopt and file a 6-year capital budget—capital improvements program—with the State division of local government.

A model form for reporting capital improvement programs has been drawn up by the division for the guidance of local units. Following this form, local officials establish a schedule of capital construction for each of the next 6 years, complete with cost estimates, identification of financing methods, and an analysis of the effect of the program on the credit rating and financial capacity of the unit. Discretion with respect to the procedures to be followed in preparing this program, and to determining project priorities is left to the local government units, but the program must be approved by the governing body. The requirement for capital improvements programs, and division assistance to local units in their preparation, have gone far toward providing information and planning necessary to support the marketing of bond issues.<sup>31</sup>

*Training.*—Few States have made serious efforts to promote local official training in bond marketing and debt management. State training programs for local government personnel usually have been confined to special functional areas in which the State has a direct financial and administrative interest, such as public health, welfare, and education.<sup>32</sup> State sponsored training programs offered through State universities often are of only limited usefulness. Finance officials of small municipalities, concerned primarily with a “how to do it” approach, frequently find that the university, or its extension division, does not offer the desired type of instruction, or that the local government will not, or cannot, finance the cost of instruction. The university sponsored training programs found in North Carolina and Tennessee have been of demonstrated value, however. The Institute of Government at the University of North Carolina provides assistance to local government units in the full range of services, including accounting and finance. In addition to answering inquiries and providing

<sup>29</sup> Advisory Commission on Intergovernmental Relations, *supra*, note 5, p. 31.

<sup>30</sup> See p. 254 above.

<sup>31</sup> Data based on interviews with George C. Skillman and William G. Coward of the division of local government, Feb. 5, 1965, and documents supplied by the division.

<sup>32</sup> The International City Managers' Association, “Post-Entry Training in the Local Public Service” (Chicago: the International City Managers' Association, 1963), p. 22.



field assistance to the various municipalities, the finance specialist on the institute staff conducts annual courses and prepares guidebooks for municipal and county finance officials.<sup>33</sup> In Tennessee, at the request of the Tennessee Municipal League and its member cities, the municipal technical advisory service was established in the University of Tennessee Extension Division. MTAS employs a number of staff specialists in the fields of finance and accounting, municipal management, codes and ordinances, and engineering. By law it is to furnish " \* \* \* technical, consultative, and field services to municipalities in problems relating to fiscal administration, accounting, tax assessment and collection, law enforcement, improvements and public works, and any and all matters relating to municipal government, \* \* \*" and to expend funds for " \* \* \* studies and research in municipal government, publications, educational conferences and attendance thereat \* \* \*."<sup>34</sup> Finally, State governments could alleviate this problem still further by encouraging participation of local finance officials in the programs sponsored by State municipal leagues and professional associations such as the Municipal Finance Officers Association.

#### POSSIBLE STATE ACTION

The mechanics of the bond market are exceedingly complex, and the public interest can best be protected by technically competent specialists experienced in its operations. Small and medium size municipalities cannot efficiently retain such specialists on their staffs. The need for State assistance to the Nation's municipalities, therefore, is generally recognized. A few States, notable examples being New Jersey, North Carolina, and Tennessee, have established effective programs of assistance in debt management.<sup>35</sup> Most States, however, have made no real constructive effort to provide small municipalities with much needed guidance in this field.<sup>36</sup> Various groups such as the National League of Cities, the Council of State Governments, and the Advisory Commission on Intergovernmental Relations have recommended for several years State enactment of legislation designed to improve local credit through positive programs of assistance in debt management practices. Such legislation would provide for modernization and codification of debt laws to remove obsolete restrictions imposed upon municipal governments, and for the establishment of an adequately staffed and financed agency to assist municipalities in the marketing of municipal bond issues. Such an agency would be empowered to—

1. Establish standard classifications and procedures for reporting essential minimum finance data, including current and historical records of revenues by source, expenditures by function and character, assessed valuation and true value of taxable property, tax rates, tax collections, and delinquencies, and debt outstanding and retired.

<sup>33</sup> William L. Frederick and Marilyn Gittell, "State Technical Assistance to Local Governments" (Chicago: the Council of State Governments, 1962), pp. 41-45.

<sup>34</sup> *Ibid.*, pp. 38-41.

<sup>35</sup> In addition to the State previously discussed, Delaware and Kentucky have established agencies to assist municipalities market their securities.

<sup>36</sup> Correspondence from officials in Alabama, Arizona, Connecticut, Florida, Georgia, Massachusetts, Mississippi, Montana, North Dakota, Oklahoma, South Carolina, South Dakota, and Washington indicates that these States have no established agencies responsible for providing positive assistance on a regular basis to municipalities attempting to market bond issues.

2. Maintain a central file of municipal finance data and distribute such data to bond underwriters, investors, and security analysts.

3. Provide, on request, technical assistance with respect to borrowing practices, methods of financing, size of bond issues, maturity schedules, timing of bond issue sales, and other matters related to debt management.

4. Establish standard forms for the preparation of bond issue prospectuses.

5. Make available to municipal officials and employees training in debt management procedures and practices in cooperation with State municipal leagues and professional associations.

6. Market, on request, municipal bond issue offerings in order to obtain the best terms available in a continually changing money market through advantageous timing and extensive advertising.

7. Review proposed municipal bond issues in terms of legality, and to conduct studies to determine economic ability to support the proposed debt burden. (The agency should not have authority to reject a proposed bond issue on the basis of economic soundness—a negative advisory report would provide, in most cases, a serious deterrent to the incurring of indebtedness.)

Adoption of these recommendations by the various States should contribute substantially to improvement in debt management and credit standing among the Nation's small municipalities.

## FEDERAL ASSISTANCE

### THE PUBLIC FACILITY LOAN PROGRAM

Federal assistance to facilitate the sale of bond issues by municipalities has been minimal. The only significant Federal program designed to assist municipalities market their securities is the public facility loan program, administered by the Department of Housing and Urban Development.<sup>37</sup> The Housing Act, as amended,<sup>38</sup> authorizes the Department to purchase the securities and obligations of, or make loans to, cities, towns, villages, townships, and counties with populations under 50,000, if such political subdivisions cannot secure credit at "reasonable terms and conditions" from private lending organizations.<sup>39</sup> Loans can be made for a variety of public works, including water, sewer, and gas distribution systems. Loans may be made for terms up to 40 years and up to 100 percent of the project cost, including land, right-of-way, site improvement, planning, construction, and engineering, architectural, and legal fees. The period of the loan is governed by the applicant's ability to pay and the estimated useful

<sup>37</sup> The Farmers Home Administration makes loans to public bodies and nonprofit organizations primarily serving rural residents to develop domestic water supply and waste disposal systems. In connection with this program, the Administration offers assistance to the applicants in determining the engineering feasibility, economic soundness, cost estimates, organization, financing, and management matters in connection with a proposed improvement. The recently organized Economic Development Administration, Department of Commerce, also offers, or plans to offer, technical assistance that will strengthen the bond issues of smaller local governments. The public facility loan program, however, has been most active in this area, particularly since the amendments of the Housing Act of 1961.

<sup>38</sup> Public Law 345, 84th Cong., 69 Stat. 642; 42 U.S.C. 1941.

<sup>39</sup> Political subdivisions having populations up to 150,000 may qualify if located in a redevelopment area designated by the Public Works and Economic Development Act of 1965. Population limits do not apply to communities located near a research or development installation of the National Aeronautics and Space Agency.

life of the project. Applicants are required to show that income will be available to repay the loan.

After a loan commitment from the Department of Housing and Urban Development has been received, the applicant political subdivision is required to secure the services of a bond counsel and to advertise its bond issue in financial publications to maximize the possibility of securing private financing. When possible, Department of Housing and Urban Development staff assist in the preparation and in the review of prospectus, advertising notices, and essential financial data related to the political subdivision. Department of Housing and Urban Development will purchase those portions of a bond issue for which there is no bid by private underwriters at interest rates deemed to be reasonable. Interest rates charged for public facility loans since 1962 are presented on the following page.

TABLE III.—Interest rates under public facility loan program

Fiscal year	Regular interest rate	Interest rate in designated redevelopment counties <sup>1</sup>
1962.....	3.75	3.50
1963.....	3.875	3.625
1964.....	4.00	3.75
1965.....	4.00	3.75
1966.....	4.00	3.75

<sup>1</sup> Counties, or county equivalents (including, Indian reservations, independent Virginia cities, territories, and cities of 250,000 meeting specified income, employment, or outmigration conditions), designated as redevelopment areas under the provisions of the Public Works and Economic Development Act.

#### EVALUATION OF THE PUBLIC FACILITY LOAN PROGRAM

The public facility loan program has proved beneficial to a limited number of local government units. Approximately a thousand loans have been made through this program since it began in fiscal 1956. These loans have been concentrated in the 16 Southern and Southwestern States in the Department of Housing and Urban Development regions III and V, as indicated in table IV below. Political subdivisions in these two regions have received approximately 80 percent of the loans approved since the program was inaugurated.

TABLE IV.—Geographical distribution and amount of approved loans from 1965 to date<sup>1</sup>

Region <sup>2</sup>	Number	Amount of loans
I.....	1	\$366,000
II.....	37	20,913,000
III.....	510	214,820,000
IV.....	74	32,013,000
V.....	313	65,113,000
VI.....	89	54,104,000
VII.....	2	330,000
Total.....	1,026	387,659,000

<sup>1</sup> Unofficial data obtained from the Public Facility Loan Division, Department of Housing and Urban Development.

<sup>2</sup> Distribution of States among the Department of Housing and Urban Development regions is as follows: region I: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont; region II: Delaware, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia, and the District of Columbia; region III: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee; region IV: Illinois, Indiana, Iowa, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; region V: Arkansas, Colorado, Kansas, Louisiana, Missouri, New Mexico, Oklahoma, and Texas; region VI: Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming; and region VII: Guam, Puerto Rico, and the Virgin Islands.

Table V, below, shows that in the last 5 fiscal years 707 loans, totaling just under \$300 million, were made to local political subdivisions. This number of loans is equal to only 1.25 percent of the number of municipalities, counties, townships, and special districts located by the 1962 U.S. Census of Governments. The amounts loaned each year through this program constitute less than 4 percent of the annual increase in long-term debt incurred in any of these years by all such political subdivisions.

TABLE V.—Number and amount of loans made under the public facility loan program<sup>1</sup>

Fiscal year	Number of loans	Amount of loans	Percent of increase in long term debt
1962.....	196	\$88,657,000	3.35
1963.....	242	60,400,000	1.48
1964.....	121	45,210,000	2.47
1965.....	79	75,271,000	1.98
1966.....	69	29,400,000	.....
Total.....	707	298,938,000	.....

<sup>1</sup>Data obtained from the Public Facility Loan Division, Department of Housing and Urban Development and U.S. Bureau of Census, "Governmental Finances," Governmental Finances G-GF61-No. 2, G-GF62-No. 2, G-GF63-No. 2, G-GF64-No. 1, and GF No. 6 (Washington, D.C., U.S. Government Printing Office (1962-66)).

The limited use of the public facility loan program by the Nation's local governments can be attributed to several factors. First, the program is not well known among potential users. The National League of Cities (American Municipal Association) survey referred to earlier, found that more than one-third of the municipalities responding had not heard of the program. This situation existed because neither the Washington nor the regional offices have made more than a minimum effort to publicize the program's existence. Second, financial limitations imposed act as constraints on the usefulness of the program. A total of \$650 million has been appropriated for the public facility loan revolving fund. Excluding \$50 million allocated for transportation facilities, and loans outstanding, there is now only \$233 million, approximately, available for future loans. The use of these funds was curtailed in 1966 by an allotment established by the Bureau of the Budget which could not be exceeded. However, probably a greater deterrent to the usefulness of the program is the fact that funds can generally be borrowed at more reasonable rates from private investors. Comparison of the average annual net interest costs charged small- and medium-size municipalities with interest rates charged political subdivisions under the public facility loan program<sup>40</sup> indicates that program rates, even those established for designated redevelopment counties, have been higher than the rates available in the public bond market for all categories of bonds during the last 5 years with the exception of the 1961 "B" and unrated bonds having an average maturity of 10 to 19 years.

<sup>40</sup> See tables I and III.

## APPENDIX A

*Average monthly net interest costs of A, B, and unrated bonds for small- and medium-sized municipalities in 1961*

### AVERAGE MATURITY UNDER 10 YEARS

Month	A bonds		B bonds		Unrated bonds	
	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000
January .....	3.009 (2)	2.803 (36)	3.240 (1)	3.011 (29)	3.405 (7)	2.865 (4)
February .....	3.161 (8)	2.873 (22)	3.154 (1)	3.006 (13)	3.336 (14)	2.853 (11)
March .....	2.890 (4)	3.009 (30)	----- (0)	3.254 (23)	3.431 (12)	3.062 (8)
April .....	3.289 (3)	3.160 (29)	----- (0)	3.185 (27)	3.439 (5)	2.648 (3)
May .....	2.918 (6)	2.890 (58)	3.057 (2)	3.044 (30)	3.239 (14)	2.796 (8)
June .....	3.006 (5)	3.071 (52)	3.043 (3)	3.123 (39)	3.461 (5)	3.191 (2)
July .....	2.958 (7)	3.042 (29)	2.827 (3)	3.147 (22)	3.740 (11)	3.303 (3)
August .....	3.094 (2)	3.016 (40)	3.572 (3)	3.308 (34)	3.149 (19)	3.358 (13)
September .....	3.556 (2)	2.941 (35)	3.350 (1)	3.136 (18)	3.255 (31)	3.494 (17)
October .....	2.840 (9)	2.858 (25)	2.683 (3)	3.062 (33)	3.580 (12)	2.687 (3)
November .....	2.991 (7)	2.936 (40)	3.239 (7)	2.998 (33)	3.988 (7)	3.091 (3)
December .....	3.112 (5)	2.984 (32)	3.481 (2)	3.089 (44)	3.237 (4)	----- (0)
Average .....	3.023 (60)	2.967 (428)	3.149 (26)	3.115 (345)	3.388 (141)	3.127 (75)

### AVERAGE MATURITY 10 TO 19 YEARS

January .....	3.475 (16)	3.349 (48)	3.793 (12)	3.627 (52)	3.689 (20)	3.722 (9)
February .....	3.300 (12)	3.157 (51)	3.701 (11)	3.385 (64)	3.627 (31)	3.585 (10)
March .....	3.350 (10)	3.300 (70)	3.496 (5)	3.635 (38)	3.663 (20)	3.720 (21)
April .....	3.449 (5)	3.430 (67)	3.856 (13)	3.514 (92)	3.823 (9)	4.010 (1)
May .....	3.451 (12)	3.248 (57)	3.698 (12)	3.430 (83)	3.676 (14)	4.257 (4)
June .....	3.494 (15)	3.364 (67)	3.840 (20)	3.498 (88)	3.931 (11)	3.944 (2)
July .....	3.565 (6)	3.424 (45)	3.891 (10)	3.541 (58)	3.907 (11)	4.178 (2)
August .....	3.547 (11)	3.397 (40)	3.855 (10)	3.609 (54)	3.936 (19)	3.891 (8)
September .....	3.588 (4)	3.427 (52)	3.859 (5)	3.530 (40)	4.043 (18)	3.682 (13)
October .....	3.385 (14)	3.320 (41)	3.728 (7)	3.549 (67)	3.887 (13)	3.745 (4)
November .....	3.340 (13)	3.335 (59)	3.738 (6)	3.504 (82)	3.789 (8)	2.861 (4)
December .....	3.429 (8)	3.273 (61)	3.814 (4)	3.412 (74)	3.956 (7)	----- (0)
Average .....	3.451 (126)	3.335 (658)	3.788 (115)	3.635 (792)	3.816 (181)	3.721 (78)

NOTE.—Figures in parentheses denote number of issues.

*Average monthly net interest costs of A, B, and unrated bonds for small- and medium-sized municipalities in 1962*

## AVERAGE MATURITY UNDER 10 YEARS

Month	A bonds		B bonds		Unrated bonds	
	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000
January	2.875 (4)	2.785 (21)	3.765 (2)	2.903 (25)	3.490 (11)	2.881 (1)
February	2.875 (2)	2.793 (29)	5.833 (3)	3.095 (24)	3.160 (19)	2.690 (10)
March	2.771 (2)	2.803 (45)	3.295 (3)	2.750 (18)	3.021 (21)	2.727 (6)
April	2.600 (3)	2.608 (46)	3.666 (3)	2.627 (43)	3.231 (18)	2.831 (6)
May	2.802 (6)	2.674 (49)	3.101 (2)	2.732 (45)	3.063 (10)	2.983 (10)
June	3.080 (4)	2.781 (33)	----- (0)	2.928 (25)	3.226 (5)	3.030 (4)
July	2.885 (2)	2.740 (24)	----- (0)	2.634 (15)	3.264 (16)	3.348 (5)
August	2.560 (1)	2.867 (18)	3.080 (4)	2.937 (19)	3.171 (19)	2.835 (8)
September	2.739 (2)	2.547 (31)	2.913 (3)	2.627 (14)	2.917 (10)	3.181 (8)
October	2.713 (3)	2.456 (13)	2.490 (1)	2.625 (8)	3.165 (7)	2.713 (3)
November	2.403 (3)	2.379 (33)	3.282 (4)	2.455 (33)	2.920 (14)	2.904 (2)
December	2.593 (4)	2.594 (29)	3.310 (1)	2.736 (21)	3.032 (25)	2.847 (15)
Average	2.757 (36)	2.668 (371)	3.543 (26)	2.749 (290)	3.128 (175)	2.906 (78)

## AVERAGE MATURITY 10 TO 19 YEARS

January	3.258 (14)	3.167 (45)	3.479 (10)	3.366 (63)	3.683 (13)	3.397 (5)
February	2.999 (4)	3.086 (85)	3.487 (13)	3.220 (99)	3.505 (35)	3.333 (6)
March	3.094 (4)	3.061 (88)	3.538 (8)	3.167 (96)	3.406 (32)	3.310 (9)
April	2.962 (12)	2.969 (78)	3.403 (9)	3.104 (77)	3.399 (21)	3.278 (9)
May	3.014 (14)	2.974 (63)	3.265 (21)	3.210 (78)	3.627 (6)	3.459 (8)
June	3.208 (12)	3.096 (36)	3.565 (6)	3.236 (43)	3.516 (16)	3.279 (2)
July	3.246 (5)	3.152 (18)	3.440 (4)	3.340 (7)	3.280 (2)	3.579 (3)
August	3.232 (2)	3.109 (17)	3.313 (3)	3.162 (14)	3.541 (11)	3.662 (2)
September	3.049 (7)	2.925 (16)	3.338 (7)	3.083 (17)	3.356 (6)	3.150 (2)
October	2.837 (4)	2.847 (16)	3.003 (3)	3.090 (14)	3.488 (5)	2.680 (1)
November	2.915 (4)	2.922 (29)	3.142 (4)	3.040 (34)	3.229 (8)	3.086 (6)
December	3.051 (8)	2.952 (50)	3.412 (11)	3.150 (57)	3.363 (31)	3.339 (15)
Average	3.086 (91)	3.030 (541)	3.386 (99)	3.188 (599)	3.453 (186)	3.326 (68)

NOTE.—Figures in parentheses denote number of issues.

## Average monthly net interest costs of A, B, and unrated bonds for small- and medium-sized municipalities in 1963

## AVERAGE MATURITY UNDER 10 YEARS

Month	A bonds		B bonds		Unrated bonds	
	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000
January .....	2.850 (6)	2.526 (15)	2.940 (1)	2.889 (13)	2.915 (9)	2.573 (12)
February .....	2.667 (3)	2.454 (14)	3.008 (5)	2.707 (25)	2.944 (13)	2.778 (4)
March .....	2.750 (3)	2.625 (35)	----- (0)	2.688 (42)	3.064 (12)	2.667 (7)
April .....	2.472 (2)	2.590 (43)	2.846 (6)	2.610 (28)	2.812 (33)	2.755 (5)
May .....	2.692 (1)	2.748 (62)	2.851 (8)	2.814 (70)	2.968 (24)	2.637 (6)
June .....	2.740 (3)	2.634 (41)	2.897 (4)	2.724 (29)	3.092 (27)	2.798 (8)
July .....	2.922 (7)	2.776 (62)	3.025 (4)	2.891 (58)	3.079 (22)	2.810 (10)
August .....	2.902 (4)	2.841 (32)	3.494 (5)	2.833 (14)	3.066 (14)	2.927 (9)
September .....	2.980 (2)	2.862 (28)	3.288 (2)	2.933 (20)	3.130 (16)	3.357 (5)
October .....	2.963 (5)	2.809 (40)	2.963 (2)	2.947 (36)	3.254 (17)	3.099 (5)
November .....	3.017 (6)	2.927 (32)	3.235 (4)	3.055 (38)	3.304 (16)	2.820 (5)
December .....	----- (0)	2.950 (3)	----- (0)	2.950 (3)	3.750 (1)	----- (0)
Average .....	2.861 (42)	2.732 (407)	3.036 (41)	2.832 (374)	3.047 (204)	2.809 (76)

## AVERAGE MATURITY 10 TO 19 YEARS

January .....	2.994 (12)	2.959 (55)	3.339 (15)	3.174 (67)	3.323 (19)	3.153 (11)
February .....	3.037 (8)	2.920 (55)	3.228 (10)	3.131 (57)	3.362 (21)	3.068 (7)
March .....	2.886 (7)	2.845 (76)	3.052 (5)	2.973 (102)	3.237 (11)	3.275 (5)
April .....	2.912 (9)	2.971 (75)	3.272 (17)	3.065 (96)	3.234 (39)	3.448 (4)
May .....	3.042 (7)	2.988 (39)	3.222 (9)	3.212 (43)	3.481 (28)	3.189 (11)
June .....	3.152 (9)	3.087 (67)	3.536 (7)	3.173 (88)	3.535 (40)	3.569 (3)
July .....	3.066 (5)	3.087 (49)	3.477 (5)	3.236 (49)	3.431 (32)	3.321 (13)
August .....	3.031 (9)	3.123 (59)	3.591 (9)	3.272 (63)	3.543 (15)	3.271 (3)
September .....	3.169 (7)	3.068 (39)	3.527 (6)	3.260 (45)	3.453 (24)	3.388 (5)
October .....	3.140 (10)	3.105 (51)	3.346 (11)	3.267 (74)	3.610 (27)	3.506 (4)
November .....	3.278 (9)	3.199 (45)	3.479 (10)	3.328 (70)	3.498 (18)	3.445 (2)
December .....	----- (0)	3.447 (3)	----- (0)	3.468 (7)	3.928 (3)	----- (0)
Average .....	3.066 (92)	3.021 (611)	3.361 (104)	3.176 (761)	3.439 (277)	3.279 (68)

NOTE.—Figures in parentheses denote number of issues.

## Average monthly net interest costs of A, B, and unrated bonds for small- and medium-sized municipalities in 1964

## AVERAGE MATURITY UNDER 10 YEARS

Month	A bonds		B bonds		Unrated bonds	
	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000
January .....	2.942 (5)	2.837 (20)	3.460 (3)	3.190 (8)	3.268 (6)	3.458 (9)
February .....	2.866 (2)	2.923 (18)	----- (0)	3.029 (21)	3.090 (13)	2.894 (6)
March .....	3.033 (8)	2.892 (13)	----- (0)	3.151 (13)	3.443 (14)	3.020 (8)
April .....	2.971 (9)	2.938 (31)	3.230 (8)	3.108 (14)	3.351 (26)	2.871 (9)
May .....	3.118 (7)	3.013 (15)	3.340 (1)	3.069 (20)	3.309 (13)	----- (0)
June .....	3.036 (4)	2.865 (27)	3.349 (3)	3.090 (11)	3.271 (25)	3.217 (11)
July .....	3.116 (3)	2.943 (66)	3.237 (3)	3.028 (45)	3.333 (13)	3.095 (8)
August .....	2.953 (6)	2.960 (36)	3.639 (1)	2.966 (27)	3.217 (12)	3.315 (9)
September .....	3.170 (1)	2.956 (22)	----- (0)	3.162 (13)	3.148 (10)	3.314 (6)
October .....	3.095 (4)	2.954 (39)	3.373 (2)	3.056 (30)	3.195 (13)	3.176 (12)
November .....	3.187 (3)	2.983 (40)	3.298 (5)	3.027 (38)	3.375 (15)	3.259 (9)
December .....	3.079 (8)	2.996 (30)	----- (0)	3.051 (27)	3.302 (21)	3.136 (6)
Average .....	3.038 (60)	2.944 (357)	3.315 (26)	3.055 (267)	3.287 (181)	3.168 (93)

## AVERAGE MATURITY 10 TO 19 YEARS

January .....	3.130 (10)	3.135 (51)	3.471 (12)	3.306 (67)	3.462 (18)	3.362 (12)
February .....	3.069 (8)	3.070 (70)	3.484 (11)	3.230 (103)	3.442 (17)	3.305 (3)
March .....	3.317 (9)	3.243 (58)	3.510 (15)	3.374 (64)	3.740 (26)	3.414 (13)
April .....	3.245 (16)	3.217 (58)	3.634 (11)	3.414 (70)	3.499 (24)	3.587 (7)
May .....	3.145 (6)	3.190 (42)	3.546 (10)	3.329 (40)	3.701 (16)	3.560 (9)
June .....	3.276 (16)	3.247 (46)	3.513 (12)	3.482 (51)	3.643 (29)	3.346 (8)
July .....	3.274 (9)	3.177 (46)	3.540 (6)	3.438 (41)	3.628 (17)	3.322 (12)
August .....	3.234 (4)	3.169 (33)	3.438 (5)	3.265 (26)	3.845 (10)	3.386 (8)
September .....	3.238 (6)	3.195 (41)	3.424 (7)	3.383 (34)	3.595 (9)	3.584 (5)
October .....	3.292 (12)	3.246 (36)	3.429 (17)	3.349 (49)	3.680 (34)	3.457 (7)
November .....	3.248 (13)	3.123 (47)	3.611 (6)	3.276 (44)	3.530 (39)	3.438 (11)
December .....	3.229 (9)	3.188 (61)	3.575 (6)	3.299 (62)	3.513 (26)	3.460 (9)
Average .....	3.234 (118)	3.180 (589)	3.509 (118)	3.339 (651)	3.598 (267)	3.429 (104)

NOTE.—Figures in parentheses denote number of issues.



## Average monthly net interest costs of A, B, and unrated bonds for small- and medium-sized municipalities in 1965

## AVERAGE MATURITY UNDER 10 YEARS

Month	A bonds		B bonds		Unrated bonds	
	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000	Population, under 10,000	Population, 10,000 to 250,000
January.....	2.965 (8)	2.902 (19)	----- (0)	2.914 (10)	3.674 (5)	2.756 (1)
February.....	2.974 (4)	2.902 (8)	3.243 (2)	3.103 (25)	3.331 (9)	3.170 (2)
March.....	3.148 (2)	2.907 (33)	3.207 (2)	3.106 (24)	3.188 (13)	3.193 (2)
April.....	3.036 (3)	2.990 (22)	3.221 (4)	3.062 (25)	3.405 (9)	3.189 (3)
May.....	3.077 (1)	3.018 (35)	3.065 (4)	3.075 (30)	3.484 (8)	3.248 (8)
June.....	3.105 (4)	3.096 (41)	3.343 (7)	3.186 (37)	3.179 (8)	3.392 (4)
July.....	3.191 (10)	3.067 (37)	3.525 (3)	3.125 (44)	3.261 (18)	3.148 (1)
August.....	3.055 (1)	3.069 (31)	----- (0)	3.158 (14)	3.386 (18)	3.171 (15)
September.....	3.139 (2)	3.173 (30)	3.415 (3)	3.256 (24)	3.475 (15)	3.262 (10)
October.....	3.440 (1)	3.280 (30)	3.537 (2)	3.811 (3)	3.482 (15)	3.371 (31)
November.....	3.380 (8)	3.244 (27)	3.518 (7)	3.356 (36)	3.629 (23)	3.218 (2)
December.....	3.462 (4)	3.375 (19)	3.750 (2)	3.455 (21)	3.722 (10)	3.476 (5)
Average.....	3.169 (48)	3.093 (332)	3.376 (36)	3.184 (293)	3.434 (151)	3.289 (84)

## AVERAGE MATURITY 10 TO 19 YEARS

January.....	3.164 (5)	3.091 (65)	3.495 (6)	3.242 (60)	3.414 (28)	3.251 (13)
February.....	3.258 (3)	3.042 (65)	3.686 (3)	3.135 (67)	3.434 (18)	3.355 (9)
March.....	3.169 (5)	3.185 (55)	3.602 (12)	3.324 (87)	3.617 (32)	3.476 (8)
April.....	3.132 (9)	3.162 (38)	3.473 (7)	3.276 (46)	3.520 (11)	3.474 (8)
May.....	3.413 (6)	3.185 (47)	3.452 (6)	3.347 (63)	3.567 (29)	3.344 (21)
June.....	3.376 (10)	3.245 (63)	3.589 (11)	3.360 (75)	3.731 (19)	3.554 (13)
July.....	3.237 (9)	3.240 (54)	3.682 (12)	3.393 (57)	3.709 (20)	3.529 (10)
August.....	3.228 (4)	3.176 (69)	3.575 (6)	3.361 (52)	3.608 (21)	3.274 (7)
September.....	3.171 (3)	3.363 (44)	3.628 (8)	3.633 (34)	3.805 (34)	3.554 (16)
October.....	3.445 (6)	3.405 (32)	3.594 (6)	3.539 (16)	3.753 (31)	3.698 (18)
November.....	3.533 (7)	3.446 (56)	3.731 (7)	3.599 (71)	3.787 (27)	3.611 (11)
December.....	3.596 (10)	3.587 (25)	3.868 (5)	3.774 (38)	3.857 (19)	3.972 (7)
Average.....	3.335 (77)	3.233 (613)	3.503 (89)	3.386 (666)	3.659 (289)	3.501 (141)

NOTE.—Figures in parentheses denotes number of issues.

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**PART III. MUNICIPAL BOND INTEREST RATES AND TAX  
EXEMPTION**

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## CHAPTER 17

**Factors Determining Municipal Bond Yields\***

**T**HE NEW ISSUE YIELDS OF MUNICIPAL BONDS are the result largely of the interaction of four groups of measurable market forces, as follows:

1. The prevailing yields at that time of similar taxable bonds.
2. The effective income tax rates then applicable to each of the various investor groups which regularly make fixed interest investments. These rates determine the value of tax exemption to each investor group.
3. The volume of new investible funds flowing to each of these investor groups. This determines the potential significance to the municipal market of the tax rates applicable to each investor group.
4. The volume of new bond financing desired by all states and municipalities at around prevailing yields.

To the above list of four specific measurable market forces must be added two more groups of forces which are far less specific and measurable.

5. **Expectations.** For example, the market might expect higher or lower tax rates generally or for specific types of investors. Alternatively, specific individuals or institutions might expect that their own brackets will rise or fall due to a change in their earnings. Again a change in the volume of tax-exempt financing might be expected or a change in the flow of new investible funds.

6. **Institutional restrictions.** Laws, customs, and liquidity needs limit the free interflow of investible funds from one department of the investment market to another solely for yield advantage. The best net after tax yield is an important guide to the allocation of loanable funds, but is far from the sole guide.

The market forces will first be discussed separately to see how they affected recent yields, and then in combination over a long period of years. First of all it will be useful to illustrate the effect of each at one recent point of time.

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\* Prepared by Sidney Homer, partner, Salomon Brothers & Hutzler, with minor editing by committee staff.

### ***Bond Yields in February 1966***

This date was picked because prime long new corporate bonds early in the month came to market to yield as much as 5% for the first time since 1960, and this is a good round number. Simultaneously, prime long municipals were selling to yield 3.60%. (In July '66, these yields are 5.50% and 3.85%, respectively.)

The following table shows the net after tax yield of these prime corporate bonds on that date to all principal investor groups. All those groups above the double rule probably preferred municipals on that date, and all those within and below the double rule probably preferred the corporate bonds. The two markets equated at the 28% (July 30%) bracket where both would give the same net yield if tax rates, or individual tax brackets, never changed (a big if).

**TABLE I**

**Net After Tax Yield of Prime New Corporate Bonds and Municipal Bonds to Various Investor Groups in February 1966**

	Gross Yield of Corporates	Tax Bracket	Net Yield of Corporates	Net Yield of Municipals
Top Bracket Private Investors .	5.00%	70%	1.50%	3.60%
Corporate Bracket: .....	5.00	48	2.60	3.60
Com'l. Banks .....				
Fire & Casualty Ins. Co. ...				
Business Corporations ....				
Medium Bracket Investors ...	5.00	40	3.00	3.60
Low Bracket Priv. Investors ..	5.00	28	3.60	3.60
Low Bracket .....	5.00	20	4.00	3.60
Many Life Ins. Cos. ....				
Many Savings Institutions ..				
Many Small Private Investors				
Non-Taxpayers .....	5.00	0	5.00	3.60
Pension Funds .....				
Public Retirement Funds ..				
Foundations .....				
Endowment Funds .....				
Political Agencies .....				

Municipal Yield as a % of Corporate Yield      72%      (July, 70%)

Municipal Yield Equated to Corporate Yield at the 28% bracket (July, 30%)

Prime long bonds are, of course, only one segment of the municipal bond market. Different sets of calculations would apply to lower quality or shorter maturity bonds, but the principle illustrated would be the same. Prime long bonds are used as an illustration of trends and relationships throughout the first part of this study because they are uniform in quality and maturity and their past yield history is readily available. Lower quality bonds and shorter maturity bonds are discussed at the end of this study.

### *Savings Flows According to Tax Bracket*

The above table suggests that municipals were and are a veritable bonanza for all investor groups in the corporate bracket or higher. To understand why the net yield of municipals was so high when tax exemption was seemingly so valuable to many investors, it is necessary to look at the volume and direction of the flow of new savings in recent years through the capital markets in terms of the applicable tax brackets. This is summarized in Table II below.

TABLE II

#### Net New Funds Invested in Bonds and Mortgages by Investor Groups Arranged by Tax Bracket

1960-64 Annual Average: Billions of Dollars					
	No Tax	20% Bracket	Corporate Bracket	Above 40% Bracket	Total
Foundations and Endowment Funds	?				?
Public Retirement Funds	\$2.3				\$ 2.3
Pension Funds	1.8				1.8
Savings & Loan Associations		10.2			10.2
Mutual Savings Banks		2.9			2.9
Life Insurance Companies		5.4			5.4
Fire & Casualty Insurance Companies			.9		.9
Total Non-Bank Institutions	4.1	18.5	.9	0	23.5
Com'l. Banks (Long-Term Funds Only)			7.4		7.4
All Institutions	4.1	18.5	8.3	0	30.9
Private Investors & Misc. (Direct Inv. in Bonds & Mortgages)	?	?	?	?	5.0
Total					\$35.9

(The tax brackets used are estimated averages. Within such groups as life insurance companies, savings banks, etc., there is a great variety of effective tax brackets, some higher and some lower than the estimated averages; some in these groups pay no tax.)

The table reveals the extraordinary consequences of our complicated tax laws. We start with a high graduated income tax and then enact a series of reductions or exemptions in order to avoid or soften double taxation on the individual saver who saves through pension funds, insurance companies, or savings banks. These complex laws, and the tendency of Americans to save through institutions, have resulted in an extraordinary concentration of savings in institutions which are subject to no tax or to a bracket less than half of the corporate bracket.

The table shows that of \$23.5+ billion of annual non-bank institutional savings flowing into bonds and mortgages, less than \$1 billion was subject to as much as the full corporate tax bracket. Out of the grand total of \$35.9 billion of annual bond flow only \$8.3 billion, or a fourth, was identifiably taxable at above 20%. Furthermore, almost all of this \$8.3 of fully taxable flow of savings was accounted for by commercial banks which in some years in the past have shown very little appetite for municipal bonds and whose investment funds are highly variable from year to year. Statistics unfortunately do not break down private investor savings by bracket, but it is probable that most dollar savings accrue to those in low or medium brackets.

### *Who Buys Municipals*

Table I and Table II, taken together, show why only a small part of our big annual flow of new bond investment money in recent years has been attracted to municipal bonds and why, therefore, municipal yields equate to taxable yields at a bracket as low as 28%. At the February 1966 yield ratio (municipals yielding 72% of corporates) corporate bonds (or mortgages) were much more attractive to pension funds, retirement funds, foundations, life insurance companies, savings banks, and savings and loan associations. Municipal bonds at this yield relationship were of interest only to three investor groups: commercial banks, fire and casualty insurance companies, and higher

bracket private investors. (Business corporations also would buy some short municipals at times when their reserve funds were growing.) The effect of these preferences on the municipal market is brought out clearly in Table III below.

TABLE III

**The Total Volume of Net New Issues of State & Municipal Bonds and  
the Volume Bought By Each Principal Investor Group**

	(Billions of Dollars)					
	1960	1961	1962	1963	1964	1965 Est.
Net New Issues of Municipals	4.0	5.0	5.3	6.3	5.6	6.8
Net Purchases of Municipals by:						
Pension Funds .....	0	0	0	0	0	0
Public Retirement Funds .....	.3	.1	-.4	-.6	-.6	-.4
Mutual Savings Banks .....	0	0	-.2	-.1	0	-.1
Savings & Loan Associations ..	0	0	0	0	0	0
Life Insurance Companies ....	.4	.3	.1	-.2	-.1	-.3
Fire & Casualty Ins. Companies	1.0	.9	.7	.8	.4	.4
Commercial Banks .....	.6	2.8	4.5	5.1	3.6	5.0
Business Corporations (Est.) ...	.2	.3	.1	.4	.4	.2
Individuals & Misc. ....	1.5	.6	.5	.9	1.9	2.0
Total .....	4.0	5.0	5.3	6.3	5.6	6.8

Table III above starts with the total net volume of new money raised by states and municipalities each year since 1960. In 1964, for example, gross new issues were \$10.5 billion, retirements were \$5.5 billion, other debt was \$.6 billion, and the net of these figures was an increase in outstandings of \$5.6 billion. The table also shows by how much each investor group increased or decreased its portfolio of municipals during each of these years.

Several groups which used to buy municipals have become net liquidators in recent years, and the reason, apparent from Table I, is that municipals now yield less than corporates to these investors; these are Retirement funds, Savings banks, and Life insurance companies. The table also shows that during recent years Commercial Banks have come to dominate the municipal market. Prior to 1961, when Regulation Q was changed, commercial banks rarely bought a dominant volume of municipals. In the 1950's,

the chief buyers of municipals were fire and casualty insurance companies, private investors, state and local retirement funds (many of these were then restricted to municipals and Treasuries), life insurance companies, and only in easy money periods, commercial banks. Today the sources of funds are radically different; commercial banks and private investors together account for more than the entire net volume of new issues.

### *The Volume of Municipal Financing Compared with Other Credit Demands*

Since most of the institutional investor groups in the United States have little or no interest in tax-exempts, it is fortunate for the municipal yield structure that the net volume of new municipal financing during recent years has not been very large. Each year the gross of new municipal issues sets a record and it is spoken of in the press as enormous, but in fact, considering the size of our capital markets, our economy, and of our municipal expenditures, net municipal capital requirements, as shown in the table below, can be called modest.

TABLE IV

#### Principal Net Demands for Credit in the United States

	(Billions of Dollars)					
	1960	1961	1962	1963	1964	1965
Real Estate Mortgages . . . .	\$14.8	\$18.9	\$24.9	\$30.2	\$30.2	\$29.4
Corporate Bonds . . . . .	5.0	5.1	4.9	5.6	6.6	8.1
Term Loans (SB&H Estimate)	0.9	1.0	1.4	2.0	2.8	5.3
State and Local Bonds . . . .	4.0	5.0	5.3	6.3	5.6	6.8
Foreign & Int'l. Bank Bonds	0.6	0.5	0.9	1.0	0.7	0.9
<b>Total Long-Term Demands</b>	<b>\$25.3</b>	<b>\$30.5</b>	<b>\$37.4</b>	<b>\$45.1</b>	<b>\$45.9</b>	<b>\$50.5</b>
Other Bank Loans . . . . .	5.1	4.6	8.6	9.1	10.8	15.0
Treasury & Agency Debt (Publicly Held) . . . . .	-2.7	5.8	6.1	2.5	3.2	0.5
<b>Grand Total of Demands</b>	<b>\$27.7</b>	<b>\$40.9</b>	<b>\$52.1</b>	<b>\$56.7</b>	<b>\$59.9</b>	<b>\$66.0</b>



### *The Cost of Borrowing*

One reason why the volume of municipal debt expansion has lagged economic growth is probably that municipal borrowing is not cheap and painless. The fact that the gross interest rate usually paid on tax exempts is well below other interest rates is often misinterpreted as an inducement to borrow large sums. However, when municipalities or states borrow they often have to find additional revenues to meet debt service — immediately, not 30 years hence. And they cannot deduct their interest payments as corporations can so that Uncle Sam pays half. They pay it all.

Table V below shows the net cost of borrowing after tax deductions to issuers of a variety of credit instruments. Looked at in this peculiar way it seems that Uncle Sam is the highest cost borrower on the list, and states and municipalities are the second highest cost borrowers.

TABLE V

The Net Cost of Borrowing After Tax Credits; February 1966

	Gross	Tax Rate	Net Cost After Tax
U. S. Treasury Notes .....	5.00%	0	5.00%
Prime Long Municipal Bonds .....	3.60	0	3.60
Medium Quality Municipal Bonds ....	4.00	0	4.00
Prime Long Corporate Bonds .....	5.00	48%	2.60
Medium Quality Corporate Bonds ....	5.50	48	2.86
Savings Banks .....	4.50	20	3.60
Commercial Bank c/d's .....	5.00	48	2.60
Conventional Mortgages to Individuals } .....	5.75	32	3.90
		70	1.72

Neither Table I (net after-tax yield to investors) nor Table V (net cost of borrowing to borrowers) tells a full story. I would not want to press these comparisons too far. For example, it can be argued that Uncle Sam recaptures some part of his interest expenditures in tax receipts while other borrowers do not. It can be argued that corporations not only deduct interest, but also wage payments and all other expenses and, therefore, to the extent that they operate as though labor is costing, say, \$3 an hour, money is

costing the full 5%, and just this would be true if operations were unprofitable. Nevertheless, Table V suggests that municipal interest payments are not relatively cheap. Furthermore, principal must be repaid as well as interest.

Almost every real estate taxpayer knows that municipal borrowing is not painless. Uncle Sam can borrow and refund at maturity and, thus, carry a constantly rising debt provided it does not rise too fast. (The postwar rise of publicly held Treasury debt has in fact been very moderate.) States and municipalities on the contrary usually sell serial issues and start repaying principal next year. These principal repayments may come to 3% or 5% of the new debt and total debt service thus may thus run 6% to 9% a year on the sum borrowed. In contrast, utility companies borrow at lower net cost for 20-30 years and enjoy the use of the money for this full period of time, taking care only to provide thru depreciation for ultimate repayment.

Thus, a new school, or a new sewer costs taxpayers dearly, and they know it. No doubt, this explains why municipal debt has not grown much faster than it has and why it probably will not soar.

A basic rule of economics is that "human wants are infinite." Nobody thinks of estimating next year's Gross National Product by adding up everything that everybody will want. Similarly it can be said that "Capital requirements are infinite," or that "State and municipal requirements are infinite." The determining factor of the volume of new facilities that will be created is not need; the limiting factor always is somebody's ability and willingness to finance new facilities and somebody else's ability and willingness to service the debt. Facilities are very expensive. Taxes are already high. Construction on credit costs vastly more than pay-as-you-go construction. Therefore, in explaining the moderate volume of state and municipal financing in recent years and in estimating its future volume, a catalogue of needs or wants (while useful) is

not as important as an estimate of the future taxability of the community and the cost and availability of credit.

We will now turn to the history of tax-exempt yields over a long period of years, the ratio of tax-exempt yields to taxable yields, and the reasons for changes in this ratio. Next we will consider the future of this ratio and say a word about the future of the entire yield structure. Finally we will discuss the yields of lower quality and shorter maturity municipals.

### *The History of Municipal Bond Yields.*

Appendix A shows the history of high grade long-term municipal bond yields from 1900 to 1966 as estimated by several acceptable sources. These are annual averages or annual highs and lows.

Chart I on page 12 summarizes prime long municipal yields in terms of annual averages from 1900 to date. Yields are inverted so that the line provides a price index of constant 30 year bonds. Chart I also summarizes the yields of prime long corporate bonds in the same way so that the eye can quickly compare these two markets. Since these are all annual averages, the chart obscures or minimizes important inter-year and cyclical fluctuations, but it shows the major trends clearly enough.

The chart shows that all yields tended to rise from 1900 to 1921. They then fell most of the time until 1946. They then rose most of the time until 1960, stabilized for five years, and then recently started to rise again.

The chart shows that municipal yields almost always fluctuated in the same direction as corporate bond yields, but between 1930 and 1955 the municipal yield fluctuations were much larger than the corporate yield fluctuations. This was, no doubt, due to the growing effect of the tax structure. In the 1940's the bull market in municipals far exceeded the bull market in corporates. Again after 1946 the bear market in municipals far exceeded the bear market in corporates. Since 1955 however, the two markets have fluctuated similarly.

The chart shows that early in the century prime municipals and prime corporates usually yielded about the same. This was before the income tax. As tax rates grew the municipal index pulled away from the corporate index and when tax rates became very high a huge yield gap developed.

However, we cannot explain the changing differential between these two markets entirely in terms of tax rates. For example, from 1946 to 1952 the differential narrowed strikingly, but during those years tax rates did not come down. The explanation of these large shifts in municipal yields relative to taxable yields requires an examination of the money flows into the bond market according to tax bracket in a manner similar to that discussed under Table II.

### *The History of the Ratio Between Municipal Bond Yields and Taxable Bond Yields*

Chart II on page 13 shows the ratio of the prime long municipal bond yields to the yields of prime long seasoned corporate bonds annually since 1900.\* The data are from Appendix B. The chart also shows the history of two important income tax rates. These are inverted so that the line traces the per cent of the corporate bond yields retained by two taxpayer groups: full corporate taxpayers and top bracket private investors.

The heavy ratio line shows that early in the century, when there was little or no income tax, the municipal yields were about the same as the corporate yields and for a spell around 1913 rose to be slightly higher than the corporate yields. During World War I, when corporate income tax rates rose to 12% and individual top bracket rates to 75%, a spread developed in favor of corporate yields and by 1930 the municipal-corporate yield ratio had declined to 90%.

(\* Note that Chart II and Appendix B are based on a comparison of seasoned corporate bond yields with new municipal bond yields and thus the yields and ratios are slightly different from those in Table I, which compares new issues with new issues.)

The ratio has never been higher since that time. Comparison of this municipal yield ratio with the tax ratios shows that in the 1920's municipals usually gave corporate taxpayers a small advantage over corporate bonds, but gave top bracket private investors an enormous advantage over corporate bonds. Tax free institutions, nevertheless, continued their established practice of buying municipals.

When tax rates rose in the 1930's, the chart shows that the municipal-corporate ratio tended downward as might be expected. In fact the ratio followed the inverse of the corporate tax rate closely, so that it was usually a matter of indifference to corporate taxpayers whether they bought taxable or tax-exempt bonds. By 1941 both ratios had fallen to about 60%.

During World War II a remarkable distortion developed. Although corporate tax rates rose no higher (except for the excess profits tax), the municipal-corporate yield ratio fell to 41%. This was when municipals had their own special bull market and rose far faster in price than all other types of high grade bonds. Long prime municipal yields then actually fell below 1% and short municipal yields fell to around .25% or lower. Municipals became highly unattractive to many corporate taxpayers and many of them sold out, as did insurance companies and savings banks.

This extraordinary fluctuation occurred, no doubt, because during the war years new municipal financing virtually ceased, maturing bonds were paid off, and total debt actually declined. Nevertheless, some trustees and a few top bracket private investors thought it worthwhile to buy long municipals at 1% instead of long corporates or Governments at around 2½% which equated to less than .25% after tax. Also the acute scarcity of new tax-exempt bonds contrasted with a flood of new taxable Treasury bonds. Thus, analysis only of tax rate changes does not explain this extraordinary market episode. Its cause must be sought in a flow of funds analysis similar to that illustrated in Tables I, II, and III.

CHART I

**Prime Long Municipal and Corporate Bonds; Inverted Yields and Index Prices**  
 Price scale at right is for a fixed maturity non-callable 30 year 4% bond

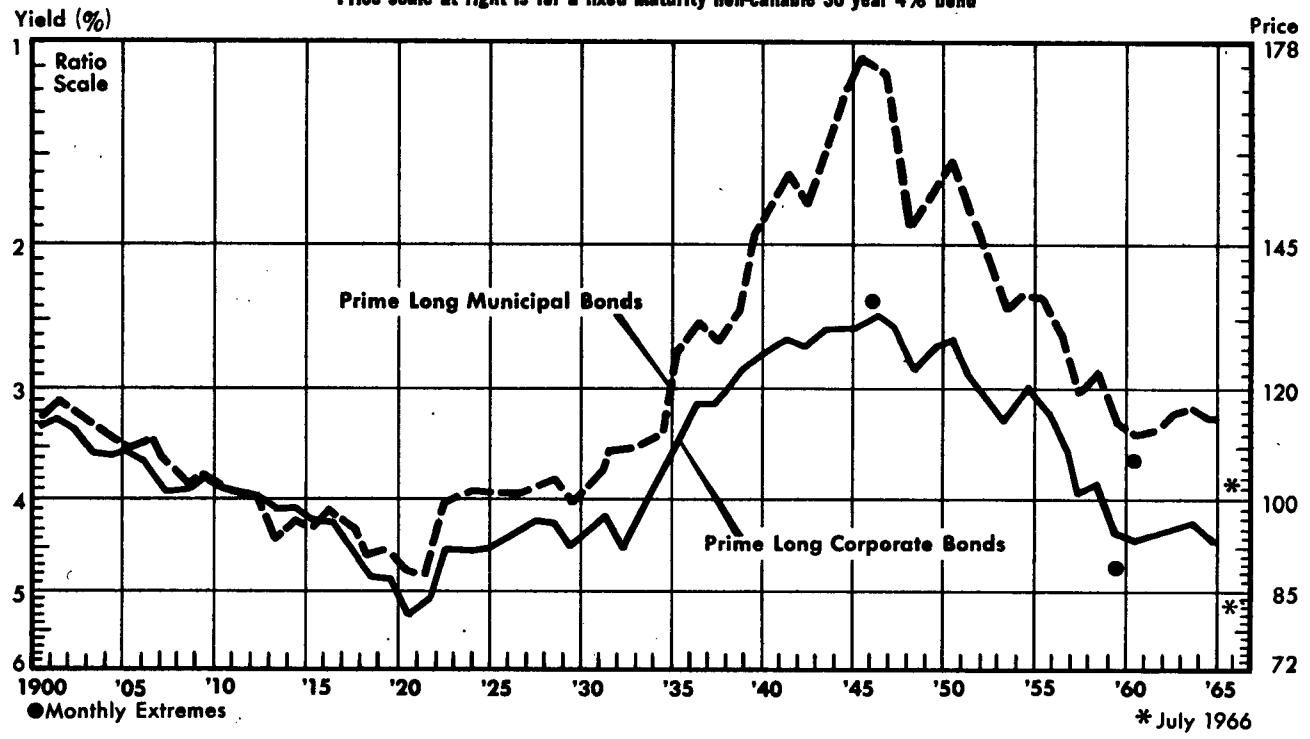
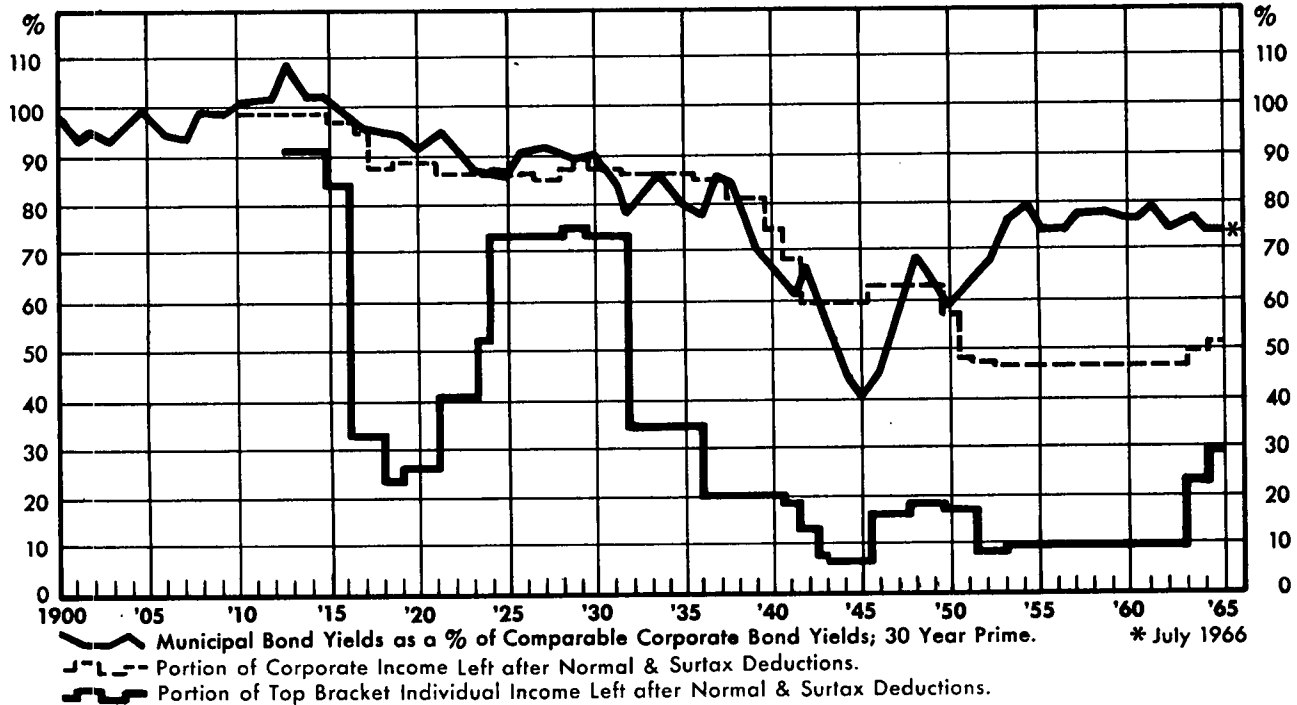


CHART 11

Ratio of Municipal Bond Yields to Corporate Bond Yields and Inverted Income Tax Rates



From 1946 through 1954, as Chart II shows, the municipal-corporate ratio again swung violently, this time up from 41% to 79%. Furthermore, during these years corporate tax rates actually increased. Here we see positive proof that tax trends are not enough to explain the municipal-corporate yield ratio. The following flow of funds analysis, however, makes the events understandable.

In these postwar years the volume of net new municipal financing grew from below zero to over \$5 billion a year. As early as 1947 the flood of new municipal issues swamped the new funds of high-bracket private investors. Bond dealers had to seek lower bracket investors and especially institutions. By 1948 the municipal ratio was up from 40% to above 62%, and this equated to the prevailing 38% corporate tax rate, the point of indifference for fire and casualty insurance companies and banks. But this was not enough to attract a large enough volume of such institutional funds into the municipal market and municipal prices continued to plunge much faster than corporate bond prices. By 1954 the ratio had reached 79% and this large differential from the 48% corporate tax residual was enough. Municipals were then (as now) a bonanza for all corporate taxpayers and for many medium bracket private investors. Medium grade municipals were attractive even to low tax bracket life insurance companies.

At the 79% ratio the large volume of new municipals met with excellent demand, and the ratio soon declined to around 75%. It remained close to 75% ever since (July 66 — 75%) which means that municipals since 1955 have fluctuated closely in line with corporates. (Very recently corporate new issue yields have risen faster than new municipal yields.) At these ratios the chart shows that municipals are still a bonanza to corporate taxpayers. As a result commercial banks in recent years, as we saw in Table IV, stepped in and bought most of the available new volume; recently however with money very tight their volume of purchases has declined.



### *The Future of the Ratio of Municipal Yields to Taxable Yields*

The future of municipal yields will be discussed in four parts: 1) The outlook for the ratio of prime long municipal yields to similar taxable bond yields; 2) The outlook for prime long taxable bond yields; 3) The outlook for the municipal risk factor; and 4) The outlook for the municipal yield curve according to maturity.

Since 80-90% of all new credit instruments are taxable (see Table IV), it is the taxable yields which dominate the trends of the bond market as a whole. Municipal yields adjust to taxable yields. The size of the adjustment depends partly on the volume of new municipal financing, partly on tax rates, but most importantly on the volume and direction of savings flows — whether they flow to higher bracket investors or to lower bracket investors, and by how much.

It seems reasonable to believe that in the decade ahead the volume of new municipal financing will continue to grow, but it will not grow as fast as the economy as a whole or as the total of capital market expansion. This lag is assumed partly because it has been noticeable for several years and partly because municipal financing will continue to be high cost financing and, therefore, politically unpopular. There will continue to be efforts to find easier ways to finance desirable projects.

Furthermore, the tables seem to show clearly that if by chance there is a rapid increase in the volume of municipal credit demands (for example, from an increase in industrial issues), the funds of the investor groups who are now buying would soon be inadequate. If so, municipals would have to be repriced — maybe up to 90% of corporate yields. This means 4.50% for prime municipals if corporates are 5%, and probably 5.40% for second grades if second grade corporates are 6%. These higher yields would be necessary to attract large funds from lower bracket life insurance companies and savings insti-

tutions. But these higher yields would themselves discourage many municipal projects and, thus, reduce the volume of demand. Therefore, volume is not apt to increase dynamically.

I shall make no effort to forecast changes in tax rates. Let us suppose they decline. At present the two markets equate at the 30% bracket, while the corporate bracket is a long way off at 48%. Therefore, reductions in the tax rate would still leave municipals far more attractive to corporate taxpayers than taxables. For this reason, moderately lower tax rates probably would not by themselves divert much funds, or raise the ratio much.

Suppose tax rates increase. This would, of course, enhance the attractiveness of municipals to corporate taxpayers, but the margin of attraction (tax rate vs. yield ratio) is today so great that these institutions are already putting all the bond funds they very well can into municipals. Therefore, tax increases by themselves probably would not lower the ratio importantly.

More important than tax rate changes probably will be changes in the volume and direction of the flow of new savings and the related question of internal revenue regulations. Monetary policy action or changes in the rules which would divert commercial banks away from municipal bonds would have an unfavorable effect on the municipal market which has recently been dependent on banks for three fourths or so of its new funds. If bank purchases were reduced from \$5 billion a year to \$1 billion, for example, other buyers for the \$4 billion of bonds would be hard to find. This could mean seeking to sell more municipals to the 20% bracket investors. This would raise the ratio to 85% and probably to 90%.

I seriously doubt that our regulatory authorities would find it advantageous to place municipal financing under such a permanent handicap. However, monetary authorities, in times of inflationary expansion of total bank credit, will find it necessary for temporary periods to force banks

to curtail all investments. Something like this is now actually happening. Nevertheless, at present ratios municipals are so attractive to banks that they are apt to return to the municipal market as soon as monetary policy permits, and stringent monetary policies are not apt to last for long periods of time. Therefore, I expect banks will in the average year be large municipal investors over the decade ahead.

Who else is apt to increase their purchases of tax-exempts? At present yield ratios, not life insurance companies or the other 20% bracket savings institutions and certainly not the tax free pension and retirement funds.

There is one important investor group that could become large purchasers of municipal bonds — namely, medium bracket private investors. High bracket private investors do not ordinarily command a large enough annual new money flow to play a major role in the \$6-\$7 billion municipal market, but the army of medium bracket individuals do command vast and growing sums. Much of it is today flowing into institutions. Savings accounts are very convenient to such people while security purchase programs are mysterious and cumbersome and seem risky. New techniques, such as tax-exempt common trust funds or tax-exempt mutual funds (if managed funds were legalized), could ultimately divert a vital \$2 billion or more a year into municipals. Finally experience shows that with any large step up in yield private investors as a group buy municipals in volume. Just this is happening on a large scale today.

I must conclude that the municipal-corporate yield ratio is apt to remain in a bonanza area where it exerts a strong attraction on corporate taxpayers. I can see no solid reason to forecast an important lasting decline in the ratio over the next decade. On the contrary I believe it should rise again to 80%. This means that pricewise municipals will decline more or advance less than taxable bonds. Nevertheless like all prime bonds, prime municipals today are in a very attractive range.

### *The Future of Taxable Bond Yields*

The yields of high grade long-term bonds in a free economy are the end product of thousands of separate decisions by an army of borrowers and an army of investors. These decisions are influenced by every important political and economic event the world over. For example, an elderly politician in Asia with a beard called Ho Chi Minh probably had more to do with the recent sharp rise in bond yields than any other single individual in the world; far more, for example, than Chairman Martin.

Short-term interest rates are often closely controlled by monetary or fiscal policy, but long-term yields are only influenced by policy, not controlled. Long-term yields can only be controlled by policy in wartime when controls are also extended over wages, prices, the allocation of scarce materials, and investment.

Looking back over the history of prime bond yields we find two interesting correlations which should be helpful in judging the future:

1. Since 1790 all of the great sustained periods of rising yields have roughly coincided with major wars — just before, during, or just after. One centered around the War of 1812, one centered around the Civil War, one centered around World War I, while the most recent bear bond market (still underway) was postponed by controls during World War II, but followed soon after and was accentuated by Korea and Viet Nam. In periods of real peace, yields have usually declined. They declined in the 1880's and 1890's, and in the 1920's in spite of great growth and prosperity during those decades.
2. Also since 1790 all of the great periods of commodity price inflation have coincided with the same major wars. There have been no peacetime inflations in the sense of a sustained rise in commodity prices. Therefore, the great bear bond markets have coincided roughly with the great commodity price inflations.

It has been argued from this coincidence that the destruction of major wars creates inflation and that inflation raises

interest rates. There are many reasons to believe that such a sequence of cause and effect is valid.

If so, a forecaster of the level of interest rates in say 1975 must have a clear pre-vision of the state of world politics — war or peace, or neither. Little else really counts. Therefore, right here I must make some assumptions and in doing so really beg the whole question. I will assume 1) no major war; 2) a gradual discouragement and diminution of the type of fringe warfare which we now see in Viet Nam; 3) reasonable success for American international policies of peace, cooperation, and trade; 4) a successful defense of the dollar; 5) a reasonable degree of political unity within the United States.

I have thus removed, by the simple process of assumption, the chief forces which are just now pushing up commodity prices and hence interest rates. But of course, although we have never had a sustained peacetime inflation and hence a sustained peacetime bear bond market, we could have both in the years ahead. Many believe, for example, that the Great Society program promises peacetime inflation. I do not believe that the present obvious overheating of our economy can be said to prove this point. This is the sixth year of the greatest of all business booms and we are in a war at the same time. Thus, it may turn out that we are now experiencing only a cyclical rise in commodity prices and a cyclical fall in bond prices, both without too much long range significance.

A key question affecting broad interest rate trends in the decade ahead will be the degree of cyclicity in the economy. Before World War II we had great cycles. Every few decades we had a runaway boom followed by a deep depression. We also had small cycles in between, but nobody remembers them. Since World War II we have had a succession of small cycles and no real superbloom or depression. Now, however, with the "new economics" we are told that even minor recessions are to be prevented. Naturally with such a rosy outlook businessmen are hastening to complete their expansion plans in as short a time as

possible. They are borrowing all they can and trying to buy each other out. This is the very stuff of booms and if long continued could lead to major depression. Fortunately, however, our Government is already putting on the brakes.

Now, therefore, I will make one more optimistic assumption: the brakes will be applied in time, this boom will not go to great excess, and it will, therefore, be followed (whenever there is peace) not by a major depression but rather by a recession. If so, the decade ahead will be marked by several more small cycles and no great boom and bust. This is optimistic because it may already be too late to check this boom without serious trouble.

With the benefit of these cheerful assumptions, I think we can draw some conclusion on interest rate trends. The present bear bond market is already 20 years old. It has carried yields up to a very high level: they have averaged higher than at present in only two years since 1880. For the time being nevertheless they are trending higher and money is getting even tighter. My assumptions suggest that the great forces behind this bear bond market (the aftereffects of World War II, the effects of the Viet Nam War, and the effects of this superboom) will weaken or vanish in the years ahead. If so, a trend towards more moderate yields could set in. Present pressures and tensions seem too acute to last indefinitely.

It is argued, however, that mere peacetime prosperity and economic growth, will promote high yields. I do not think so. Peacetime growth is in a sense self-financing. This is a heavy saving economy with vast and growing productivity, an abundance of labor, and a high degree of political stability. We can see today that our productivity is not enough to sustain a boom on top of a war, but according to my assumptions this coincidence of forces is not to be typical of the economy over the next decade. If my assumptions are wrong, if this is to be a mobilized decade, then interest rates may be held down by capital market rationing. If it is to be a decade of increasing peace, interest rates should return to more moderate levels.

### *The Yields of Lower Quality Municipals*

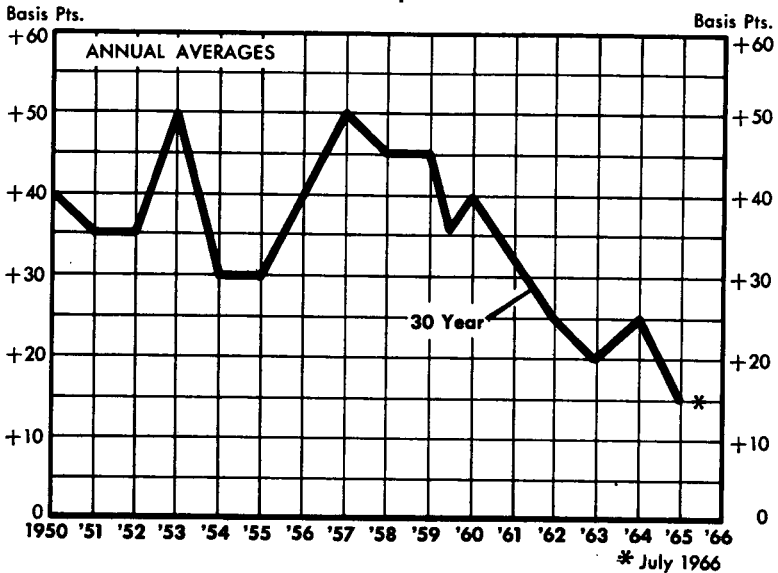
The above analysis has been based entirely on the yields and yield prospects for long-term prime municipals. Most bonds, however, are rated less than prime and many are of distinctly secondary quality. Lower grade municipals naturally yield more than prime municipals of the same maturity. However, this quality differential is highly variable.

Table I in Appendix C reports the estimated yields for new issues of two quality groups of municipal bonds in all of the principal maturities. These quality groups are primes and so-called "good grades." These latter are, generally speaking, the best medium grade bonds. Table II in Appendix C lists the differentials between these two quality groups. It will be seen that, for the longest maturity, the primes have at times yielded 50 basis points less than the good grades, whereas recently this quality differential has come down to only 15 basis points. For the short maturities, the differential has been as wide as 30 basis points and as narrow as 5 basis points. Chart III on Page 22 shows the 30 year maturity quality differential over a period of years. It is apparent that the quality differential has declined almost steadily since 1957 and by 1965 it had almost vanished.

The decline in the quality differential is, no doubt, attributable largely to two factors: 1) Long years of prosperity have caused investors to forget the financial problems which many communities suffered in earlier times. After all for several decades the debt payment record of mediocre credits has been exactly as good as the debt payment record of prime credits. 2) During the past four or five years there has been intensive competition between institutional investors, mostly commercial banks, for maximum yield in order to offset the high cost of deposit money. This has led portfolio managers to accept progressively lower yield differentials in order to improve their current income performance.

CHART III

**Municipal Yield Spreads — Good Grade vs Prime**  
(in basis points)



The yield comparisons made by Chart III, however, do not extend to truly second grade municipal bonds, but are confined to two quality groups within the broad field of quality investments. However, there are many municipals of quality well below the "good grade," and these yield still more. Nevertheless, even in the case of outright second grades the differentials have narrowed strikingly in recent years. In the depression years of the 1930's for example, there were times when the bonds of shaky cities sold to yield 6% or more, while simultaneously the bonds of prime credits were selling to yield below 3%. At one time New York City (medium grade) long 4's were selling at 60, while simultaneously New York State (prime) long 4's were selling at twice the price, i.e., 120.

For the future, it seems probable that the differentials between prime and lower quality municipals will again widen. Furthermore, if municipal debt increases too rapidly in the years ahead, it is certain that at least a few



municipalities will become dangerously overextended. In such an event, it would only take one large default to bring about a drastic revision of investor sentiment adverse to all types of lower quality municipals. This would quickly result in drastic repricing of lower and medium quality municipals to wider or perhaps very wide spreads from prime municipals. In this way the new issues of industrial bonds or risky revenue bonds could damage the market for a very wide range of general obligations.

Medium quality and low quality municipals will in the years ahead be importantly influenced by the fluctuations discussed above for prime municipals, but they will also be influenced by changes in the market's appraisal of the risk factor. Since at present the risk differential is at a minimum, it is apt to widen. This means that the market for medium grade and second grade municipals should do distinctly worse than the market for primes.

### *Shorter Maturity Municipals*

The yields of municipal bonds differ not only because of differences in quality but also because of differences in maturity. This is again illustrated by Table I in Appendix C, while the yield spreads according to maturity are tabulated in Table III of Appendix C and are charted in Chart IV on page 24.

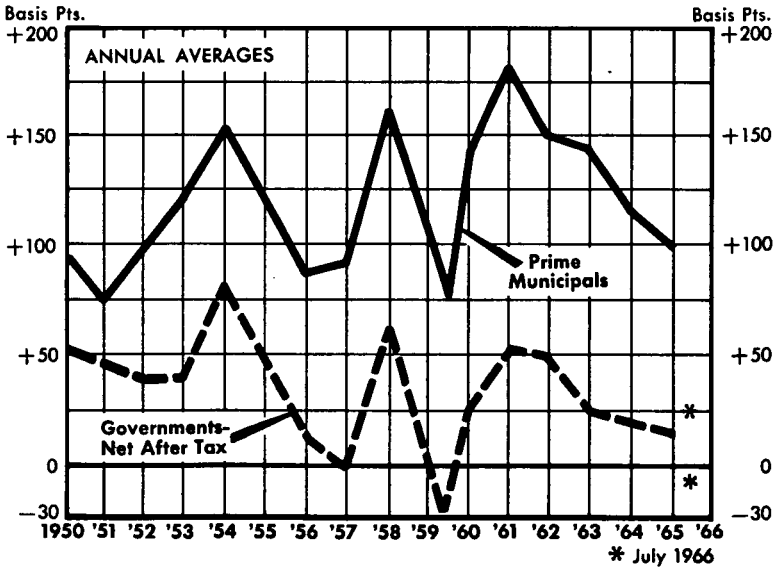
It will be seen that prime 30 year maturity municipals have usually sold to yield 100-185 basis points more than one year municipals of the same quality and that this differential was usually spread over the entire yield curve so that two year bonds yielded more than one year bonds, and five year bonds more than two year bonds, etc. It will also be seen in Table III that this differential by maturity has come down sharply during the past two years and has now all but vanished. The table also shows that the differential by maturity for good grade bonds has usually been even larger than the differential for prime bonds and it has also come down sharply during recent years.

Thus, the basic pattern of the entire municipal market has usually been: the longer the maturity, the higher the yield. However, the slope of this "yield curve" is highly variable. The curve tends to become flatter when money is tight and all yields are rising as, for example, in 1957, 1959, and currently, while it tends to become steeper in periods of easy money. This shift in the slope of the yield curve is due to the fact that short yields are much more sensitive to changes in the money market than are long yields and, therefore, fluctuate over a wider area. When all yields are rising, short yields usually rise more than long yields; when all yields are falling, short yields fall more.

Chart IV shows the history of the yield curve for prime municipals in terms only of the differential between the shortest and the longest maturities. It also shows the history of the U. S. Government yield curve, net after income tax. The chart shows that in the case of Govern-

CHART IV

**Yield Curves: 30 Year vs 1 Year Prime Municipals  
30 Year vs 1 Year Governments Net After Tax**



ments the differential actually became negative in 1957, 1959, and currently when money was very tight; a negative curve meant that the shorts actually yielded more than the longs. The municipal curve, on the other hand, until very recently, was always positive. The chart also shows that the ups and downs of these two yield curves, i.e., municipals and Governments, have been closely synchronized most of the time, but that the municipal differential between longest and shortest has always been substantially larger than the Government differential net after tax. Evidently at all times and even in periods of intensive money market pressures, there has been a greater investor preference for shorter maturities in the municipal market than has been the case in the Government market.

These tables suggest that the analysis of long prime municipal yield trends contained in the first part of this study should in general terms also be applicable to shorter maturity municipals with this qualification: shorter maturity yields should fluctuate with long maturity yields, but should cover a wider range. This means that if yields rise further shorts will yield more than longs and if and when the present intense pressures on the money market relax and long prime municipal yields decline, shorter prime municipal yields will decline even more to levels far below long yields.

This history of the yield curve provides the investor with important guidance for his maturity selection: the best time to buy the long maturities is when the yield curve is flattest, i.e., when longs yield very little more than shorts (or even yield less than shorts). This pattern is typical of high yield low priced markets. The worst time to buy long maturities is when they yield far more than shorts; this pattern is typical of low yield high priced markets.

## APPENDIX A—High Grade Municipal Bond Yields, 1900-1965

Year	New England		Standard & Poors		Bond Buyer, High Grade	
	Annual Average	Annual Average	Low	High	Annual Average	
1899						
1900	3.15	3.12	3.08	3.13	3.25	
1901	3.12	3.13	3.08	3.19	3.10	
1902	3.21	3.20	3.15	3.25	3.18	
1903	3.37	3.38	3.26	3.49	3.30	
1904	3.45	3.45	3.39	3.52	3.40	
1905	3.43	3.40	3.37	3.44	3.48	
1906	3.60	3.57	3.44	3.70	3.43	
1907	3.90	3.86	3.68	4.17	3.67	
1908	4.02	3.92	4.79	4.17	3.87	
1909	3.85	3.79	3.72	3.85	3.76	
10-yr. av.	3.51	3.48			3.44	
1910	4.00	3.97	3.87	4.04	3.91	
1911	4.00	3.98	3.96	4.01	3.98	
1912	4.07	4.03	3.99	4.09	4.01	
1913	4.40	4.22	4.08	4.36	4.45	
1914	4.37	4.12	4.09	4.17	4.16	
1915		4.16	4.02	4.23	4.24	
1916		3.93	3.84	3.99	4.05	
1917		4.21	3.82	4.51	4.23	
1918		4.50	4.36	4.59	4.57	
1919		4.46	4.43	4.53	4.50	
10-yr. av.		4.15			4.21	

Year	Prime New Issues			Moody's Aaa			Bond Buyer, High Grade		
	Annual Average	Low	High	Annual Average	Low	High	Annual Average	Low	High
1920	4.80	4.80					4.97	4.53	5.25
1921	4.70	5.00					5.02	4.48	5.16
1922	3.80	4.30					4.19	4.05	4.37
1923	3.80	4.15					4.23	4.10	4.38
1924	3.70	4.15					4.19	4.07	4.35
1925	3.75	4.05					4.09	3.98	4.23
1926	3.80	4.10					4.08	4.05	4.13
1927	3.70	4.00					3.97	3.91	4.10
1928	3.65	3.95					3.98	3.83	4.15
1929	3.95	4.10					4.29	4.13	4.47
10-yr. av.	3.97	4.26					4.30		

Year	Prime New Issues			Moody's Aaa			Bond Buyer, High Grade		
	Annual Average	Low	High	Annual Average	Low	High	Annual Average	Low	High
1930		3.65	4.10				4.08	3.92	4.25
1931		3.20	3.85				3.88	3.60	4.23
1932		3.15	3.95				4.33	4.02	4.66
1933		3.05	3.85				4.30	3.81	4.90
1934		2.90	3.85				3.73	3.38	4.50
1935		2.35	3.00				2.99	2.79	3.30
1936		2.25	2.65				2.63	2.35	2.84
1937		2.35	3.00	2.50	2.18	2.81	2.67	2.35	2.90
1938		2.30	2.60	2.24	2.14	2.45	2.58	2.42	2.75
1939		1.75	2.10	2.07	1.90	2.32	2.42	2.26	2.94
10-yr. av.		2.70	3.30				3.36		
1940		1.60	2.00	1.83	1.56	2.06	2.20	1.82	2.66
1941	1.60	1.35	1.80	1.52	1.39	1.71	1.80	1.57	2.13
1942	1.82	1.70	2.00	1.63	1.54	1.84	1.88	1.72	2.19
1943	1.47	1.25	1.75	1.38	1.25	1.56	1.58	1.35	1.80
1944	1.15	1.10	1.20	1.16	1.14	1.21	1.34	1.30	1.44
1945	1.05	0.95	1.20	1.08	0.95	1.22	1.21	1.06	1.43
1946	1.12	0.90	1.50	1.10	0.91	1.38	1.23	1.04	1.66
1947	1.46	1.35	1.80	1.45	1.35	1.69	1.63	1.56	1.85
1948	1.91	1.70	2.15	1.87	1.75	1.96	2.16	2.00	2.25
1949	1.65	1.60	1.70	1.66	1.61	1.71	1.92	1.84	1.99
10-yr. av.	1.50			1.47			1.70		
1950	1.52	1.40	1.65	1.57	1.42	1.66	1.74	1.58	1.86
1951	1.79	1.40	2.00	1.60	1.30	1.78	1.75	1.43	2.02
1952	2.02	1.85	2.25	1.79	1.67	1.99	1.98	1.84	2.20
1953	2.45	2.25	2.75	2.31	2.04	2.64	2.50	2.21	2.85
1954	2.32	2.15	2.45	2.03	1.93	2.18	2.24	2.10	2.37
1955	2.34	2.25	2.40	2.17	2.06	2.29	2.33	2.24	2.50
1956	2.54	2.30	2.85	2.50	2.19	3.04	2.62	2.34	3.10
1957	3.05	2.70	3.25	3.10	2.79	3.43	3.15	2.89	3.43
1958	2.87	2.65	3.30	2.92	2.69	3.28	3.05	2.80	3.51
1959	3.31	3.10	3.65	3.35	3.06	3.60	3.43	3.15	3.70
10-yr. av.	2.42			2.33			2.48		
1960	3.40	3.10	3.65	3.26	2.99	3.53	3.37	3.12	3.65
1961	3.38	3.25	3.40	3.27	3.12	3.37	3.35	3.16	3.44
1962	3.21	3.10	3.35	3.03	2.88	3.26	3.10	2.92	3.28
1963	3.19	3.10	3.30	3.06	2.93	3.18	3.10	2.95	3.24
1964	3.26	3.20	3.35	3.09	2.99	3.16	3.15	3.06	3.25
1965	3.28	3.15	3.50	3.15	2.94	3.40	3.20	2.99	3.47
July '66			3.85			3.77			3.85

**Sources**

New England municipals from Macaulay's "Bond Yields, Interest Rates and Stock Prices," National Bureau of Economic Research, 1938, page A 142ff.

Standard & Poor's, Moody's Aaa, and Bond Buyer averages are from those publications. The new issue yields are derived from a privately prepared series reflecting the twenty-year maturity yields of all substantial prime new issues that sold reasonably well through 1950 and, thereafter, the thirty-year maturity yields of the same.

### APPENDIX B—A Comparison Between Long-Term Prime Municipal Yields and Long-Term Prime Corporate Bond Yields

Year	Long-Term Municipal Bonds* vs. Prime 30-Year Corporate Bonds, Annual Averages		Year	Long-Term Municipal Bonds* vs. Prime 30-Year Corporate Bonds, Annual Averages	
	Yield Spreads, Basis Points	Municipal Yields as % of Corporate Yields		Yield Spreads, Basis Points	Municipal Yields as % of Corporate Yields
1900	- 6	98	1934	- 46	87
1901	- 18	94	1935	- 76	81
1902	- 16	95	1936	- 66	78
1903	- 25	93	1937	- 44	86
1904	- 17	95	1938	- 45	84
1905	- 3	99	1939	- 85	70
1906	- 22	94			
1907	- 25	93	10-yr. av.	- 65	82
1908	- 3	99			
1909	- 2	99	1940	- 90	67
10-yr. av.	- 13	96	1941	- 99	62
1910	+ 4	101	1942	- 84	68
1911	+ 5	101	1943	-108	58
1912	+ 6	102	1944	-139	45
1913	+ 31	108	1945	-149	41
1914	+ 5	102	1946	-133	46
1915	+ 6	102	1947	-111	57
1916	- 5	99	1948	- 91	68
1917	- 18	96	1949	-103	61
1918	- 25	95	10-yr. av.	-111	58
1919	- 34	93			
10-yr. av.	- 3	99	1950	-110	58
1920	- 47	91	1951	-111	62
1921	- 31	94	1952	-101	67
1922	- 44	91	1953	- 82	75
1923	- 53	88	1954	- 65	79
1924	- 59	87	1955	- 76	76
1925	- 60	87	1956	- 81	76
1926	- 41	91	1957	- 88	78
1927	- 33	92	1958	- 94	78
1928	- 39	91	1959	-105	76
1929	- 45	90	10-yr. av.	- 91	73
10-yr. av.	- 45	90			
1930	- 44	90	1960	- 99	77
1931	- 62	85	1961	- 94	78
1932	-106	78	1962	-111	74
1933	- 74	82	1963	-104	75
			1964	-110	75
			1965	-115	74
			July '66	-128	75

**\*Sources**

Corporate yields are 30-yr. Durand Basic Yields (National Bureau of Economic Research). Municipals are Bond Buyer, High-Grade to 1920; New York State to 1940; thereafter, long-term prime new issues (see Appendix A).

## APPENDIX C

**TABLE I**  
Annual Averages of Municipal Yield Scales

	PRIME						GOOD GRADE					
	Maturity in Years						Maturity in Years					
	1	2	5	10	20	30	1	2	5	10	20	30
1950	.75	.80	1.00	1.20	1.55	1.70	.90	.95	1.20	1.50	1.90	2.10
1951	1.00	1.05	1.20	1.40	1.60	1.80	1.10	1.10	1.40	1.60	1.95	2.15
1952	1.00	1.05	1.20	1.45	1.75	2.00	1.10	1.15	1.40	1.70	2.10	2.35
1953	1.30	1.35	1.55	1.80	2.20	2.45	1.45	1.50	1.85	2.25	2.70	2.95
1954	0.75	0.90	1.15	1.50	2.00	2.30	0.85	1.00	1.30	1.75	2.30	2.60
1955	1.15	1.25	1.55	1.80	2.15	2.35	1.35	1.45	1.80	2.15	2.50	2.65
1956	1.70	1.90	2.10	2.25	2.40	2.55	1.90	2.10	2.40	2.65	2.80	2.95
1957	2.15	2.30	2.55	2.75	2.95	3.05	2.45	2.60	2.95	3.25	3.45	3.55
1958	1.30	1.50	2.00	2.40	2.80	2.95	1.50	1.75	2.30	2.80	3.30	3.40
1959	2.20	2.35	2.65	2.95	3.20	3.35	2.45	2.55	2.95	3.35	3.65	3.80
1960	2.05	2.30	2.60	2.90	3.20	3.40	2.30	2.50	2.90	3.30	3.65	3.80
1961	1.50	1.75	2.20	2.75	3.15	3.35	1.70	1.95	2.50	3.05	3.55	3.70
1962	1.60	1.75	2.15	2.55	3.00	3.20	1.75	1.90	2.30	2.75	3.20	3.45
1963	1.75	1.90	2.25	2.60	3.00	3.20	1.85	2.00	2.40	2.80	3.20	3.40
1964	2.10	2.25	2.55	2.80	3.05	3.25	2.20	2.35	2.75	2.95	3.30	3.50
1965	2.35	2.50	2.75	2.90	3.10	3.30	2.40	2.55	2.85	3.00	3.25	3.45
July '66	3.60	3.60	3.60	3.65	3.75	3.85	3.70	3.70	3.80	3.85	3.95	4.00

**TABLE II**  
Yield Spreads Between Annual Averages of Good Grade  
and Prime Municipal Scales

	Maturity in Years					
	1	2	5	10	20	30
— in basis points —						
1950	15	15	20	30	35	40
1951	10	5	20	20	35	35
1952	10	10	20	25	35	35
1953	15	15	30	45	50	50
1954	10	10	15	25	30	30
1955	20	20	25	35	35	30
1956	20	20	30	40	40	40
1957	30	30	40	50	50	50
1958	20	25	30	40	50	45
1959	25	20	30	40	45	45
1960	25	20	30	40	45	40
1961	20	20	30	30	40	35
1962	15	15	15	20	20	25
1963	10	10	15	20	20	20
1964	10	10	20	15	25	25
1965	5	5	10	10	15	15
July '66	10	10	20	20	20	15

**TABLE III**  
**Yield Spreads Between Maturity Groups of Municipal Yield Scales**  
**Annual Averages**

	PRIME						GOOD GRADE					
	Maturity in Years						Maturity in Years					
	2 to 1	5 to 2	10 to 5	20 to 10	30 to 20	30 to 1	2 to 1	5 to 2	10 to 5	20 to 10	30 to 20	30 to 1
1950	5	20	20	35	15	95	5	25	30	40	20	120
1951	5	15	20	20	20	80	0	30	20	35	20	105
1952	5	15	25	30	25	100	5	25	30	40	25	125
1953	5	20	25	40	25	115	5	35	40	45	25	150
1954	15	25	35	50	30	155	15	30	45	55	30	175
1955	10	30	25	35	20	120	10	35	35	35	15	130
1956	20	20	15	15	15	85	20	30	25	15	15	105
1957	15	25	20	20	10	90	15	35	30	20	10	110
1958	20	50	40	40	15	165	25	55	50	50	10	190
1959	15	30	30	25	15	115	10	40	40	30	15	135
1960	25	30	30	30	20	135	20	40	40	35	15	150
1961	25	45	55	40	20	185	25	55	55	50	15	200
1962	15	40	40	45	20	160	15	40	45	45	25	170
1963	15	35	35	40	20	145	15	40	40	40	20	155
1964	15	30	25	25	20	115	15	40	20	35	20	130
1965	15	25	15	20	20	95	15	30	15	25	20	105
July '66	0	0	5	10	10	25	0	10	5	10	5	30



## CHAPTER 18

# The Effect of Credit Conditions on State and Local Bond Sales and Capital Outlays Since World War II\*

### INTRODUCTION AND SUMMARY

This paper is divided into two sections. The first reviews the literature on postwar interactions among overall credit conditions, State and local borrowing, and State and local capital outlays. The second section explains in nontechnical language the writer's own regression model and findings on the market for State and local bond issues since 1951. The regression model is based on two theoretical models, one for borrowers and one for lenders. It tests indexes of State and local needs for structures, interest rates and rate spreads, and "institutional" variables such as fluctuations in the wealth of high-tax-bracket savers for their power and reasonableness in explaining State-local bond sales. A technical appendix presents the model in the manner familiar to econometricians and explains certain deviations from what may already be called the classical lagged stock adjustment model.

Findings may be summarized as follows. The literature reviewed agrees, in general, that interest rates paid on State and local bonds affects the timing of gross new issues and may have an impact on the amount of issues placed in the long run. But the latter is probably of very moderate size, relative to total issues, and may well be of a one-shot nature (after initial changes in borrowing, States and municipalities adjust their tax rates to provide for changing interest costs rather than permanently raising or lowering their borrowing targets). The evidence for a significant impact of interest rates on State and local construction is weak, but this may reflect deficiencies in the very few studies focusing on this variable rather than the "true" state of affairs.

The writer's regression model explains up to four-fifths of fluctuations in semiannual State and local bond issues (including federally guaranteed ones) around a trend of wealth and taxing power which is represented by permanent income. The lagged stock-adjustment coefficient, which is the mean of the unknown actual ones for borrowers and for lenders, is of the correct negative sign and of a size according quite well with reasonable assumptions on the reaction speeds of bond buyers and State and local borrowers. The interest rate coefficients are interpreted as meaning that State and local borrowers do form and act upon expectations on future interest rates, while buyers of new issues are more influenced by current changes in the spread yields on

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\* Prepared by Paul F. McGouldrick, Division of Research and Statistics, Board of Governors of the Federal Reserve System, with minor editing by committee staff. The author wants to acknowledge the stimulating criticisms and suggestions offered by Frank deLeeuw and Edward Gramlich of the Board of Governors of the Federal Reserve System. Editorial assistance was also provided by Mrs. Mary Ray of the Board of Governors and by Paul McGann. The author, of course, takes responsibility for all errors of omission and commission.

State-local bonds and yields on taxable securities (for which the U.S. Government bond yield is a proxy).

Also influencing the demand for borrowed money are Federal grants-in-aid (having a positive effect) and an index of needs for new construction. The supply of funds has been positively affected by special movements in the wealth of high-tax-bracket individuals (measured by the ratio of the Standard & Poor's stock price index to total wealth) and by increases in the share of total wealth held in the form of time deposits at commercial banks. A possible weakness in the model and therefore in the findings may be the inadequacy of the variable used to measure total human and nonhuman wealth as well as the tax base (permanent income).

### (1) REVIEW OF THE LITERATURE

In a *Journal of Finance* article written in 1960,<sup>1</sup> Frank Morris found a definite, although moderate, inverse cyclical association between interest rates on State and local securities and State and local bond issues, for the 1952-59 period. A more uncertain inverse relationship was also found between the same interest rates and the start of State and local outlays measured by contract awards. However, two types of bond sales and contract awards were found to be cyclically insensitive to interest rate fluctuations: those for educational buildings and facilities and those for water and sewer systems. Countercyclical fluctuations in sales and awards were therefore concentrated in the "other" category of each, which includes highways and bridges, hospitals and other social welfare institutions, and administrative buildings.

These conclusions were derived by comparison of fluctuations around trend in centered 12-month moving averages of bond sales, contract awards, and construction put in place, on the one hand, and fluctuations around trend in the Moody's index of AAA bond yields (not smoother by a moving average), on the other hand. The upward trends in the three smoothed series were ascribed to the growth of needs for State and local services, so that interest rate impacts could be measured by examining their correspondence with deviations from trends. Moving averages were used to isolate cycles in bond sales and contract awards because of the very large irregular components of both monthly series. On charts 1, 2, and 3, the two series plus construction put in place are updated to 1965, using contract award and construction data revised since this article. These series are then compared with his index of interest rates (Moody's AAA municipal bond yields).

Morris' implicit model—that factors underlying the demand for funds by State and local governments are cyclically insensitive, while the supply of funds and State and local adjustments to that supply are cyclically sensitive—is quite defensible as a rough approximation to a complex reality. Such indexes of "real" needs for publicly owned

<sup>1</sup> Frank Morris, "Impact of Monetary Policy on State and Local Governments: an Empirical Study," *Journal of Finance*, May 1960.

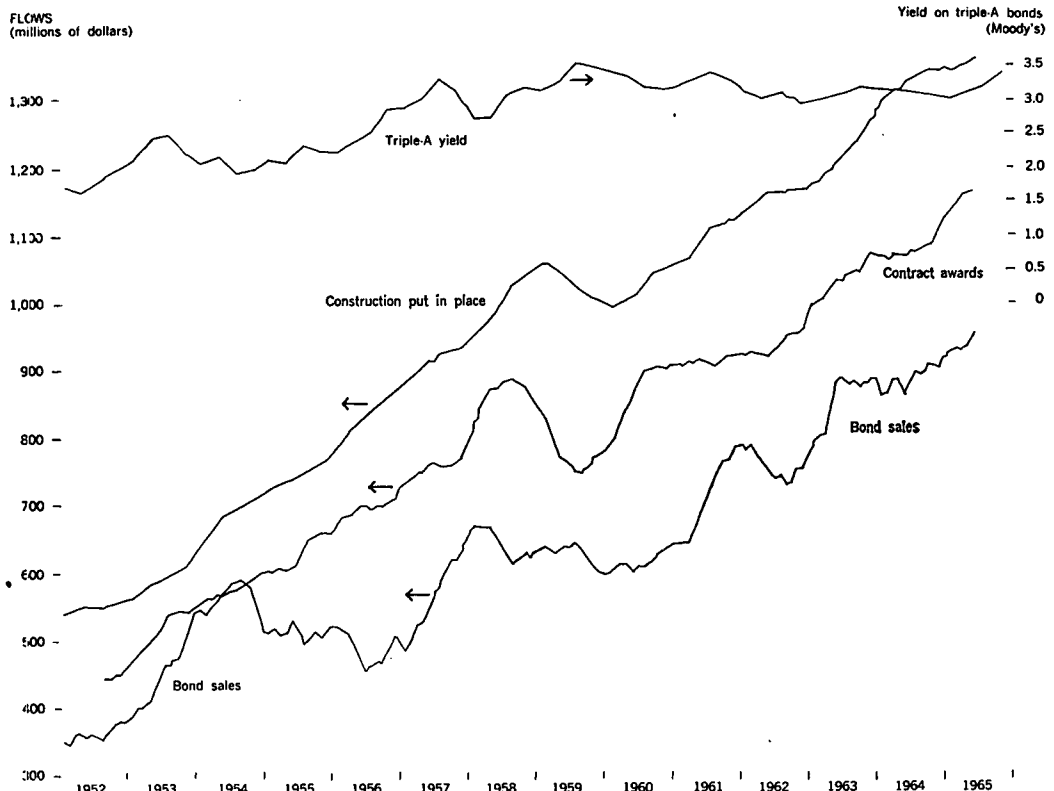


CHART 1. TOTAL BOND SALES, CONTRACT AWARDS, AND CONSTRUCTION PUT IN PLACE BY STATE-LOCAL GOVERNMENTS, 1952 TO 1965 (12-MONTH CENTERED MOVING AVERAGES; BOND YIELDS NOT SMOOTHED)

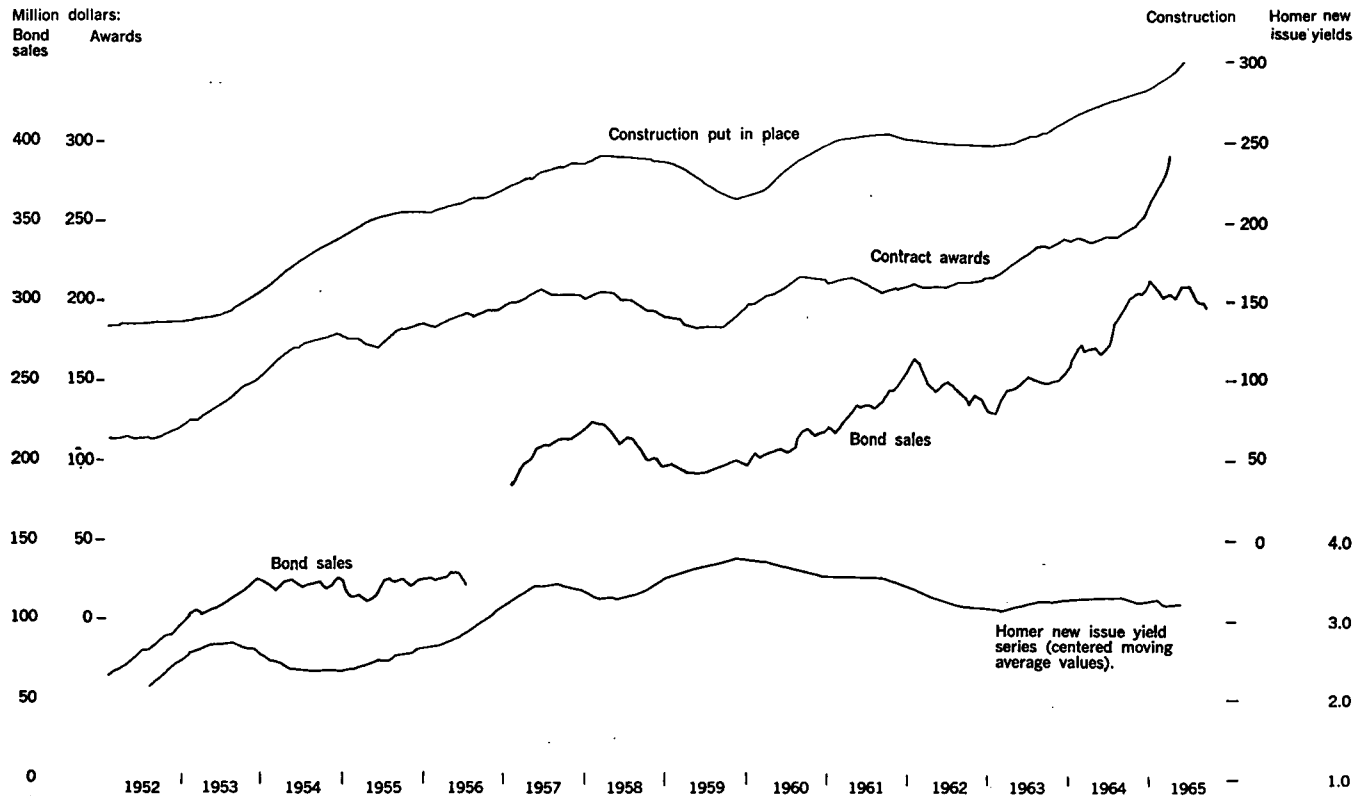


CHART 2. EDUCATION BOND SALES, CONTRACT AWARDS, AND CONSTRUCTION PUT IN PLACE BY STATE-LOCAL GOVERNMENTS, 1952 TO 1965 (12-MONTH CENTERED MOVING AVERAGES, SPECIFICALLY INCLUDING HOMER NEW ISSUE YIELDS)

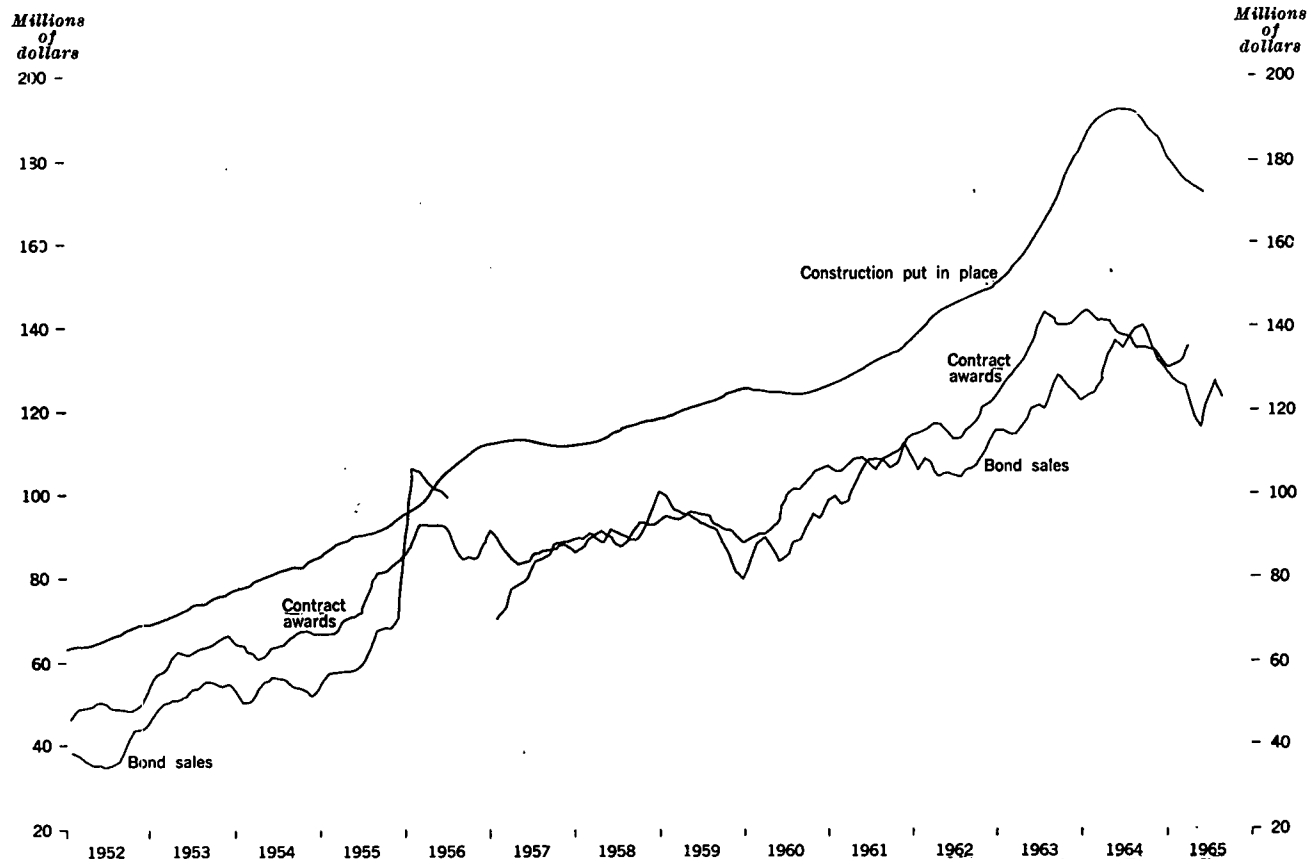


CHART 3. SEWER AND WATER BOND SALES, CONTRACT AWARDS, AND CONSTRUCTION PUT IN PLACE BY STATE-LOCAL GOVERNMENTS, 1952 TO 1965 (12-MONTH CENTERED MOVING AVERAGES; MONTHLY VALUES)

capital goods as the number of people in schools and passenger cars on the road have shown either very steady upward trends (people in schools) or mild fluctuations (cars on the road) which have not corresponded with postwar cycles in credit conditions. His implicit assumption that changes, not levels, of interest rates matter is supported by the postwar growth of real per capita income (helping offset the long postwar rise in interest costs) and the plausible hypothesis that shock effects of increases in rates ultimately vanish.

One puzzling feature of his procedure is his comparison of centered 12-month averages of variables thought to be influenced by interest rates with unsmoothed monthly values of the rates themselves. Literally, this implies that a change in the AAA bond rate affects bond sales or contract awards or construction equally, month by month, during the preceding as well as the following half year. Rather complicated patterns of anticipations and behavior lags would be needed to justify this very special postulated relationship.

An alternate interest rate series is plotted on chart 2 in order to test whether the conjunction of a more simple time relationship between interest rates and borrowing and an alternative measure of the cost of borrowed funds would still show the same broad relationships as those found by Morris. Since issues of State and local units of less than unassailable financial strength may be more exposed to tight money impacts than issues by very high-rated units are, the series is of bonds rated as "good" rather than "prime" in quality.<sup>2</sup> Since new issue yields may be more relevant to borrowing decisions than are the secondary market yields measured by the Moody's interest rate series,<sup>3</sup> the series is of the Sidney Homer series on standardized new issue yields (for "good" rated municipals).<sup>4</sup> And since a change in interest rates may affect most strongly State and local borrowing during the month in which it occurs, new issue yields are smoothed by the same 12-month centered moving average as that used to eliminate irregular fluctuations in bond sales.<sup>5</sup>

In fact, this alternative, smoothed interest rate series supports Morris' explanation better, after 1959, than his own series does. The long, gradual decline of smoothed new issue yields starting in early 1950 and ending in early 1963 corresponds more closely with the initially slow and then accelerating rise in smoothed bond issues than does the AAA bond yield series on chart 1. Before mid-1959, the two interest rate series have about the same turning points, making the unsmoothed AAA yield series used by Morris a reasonable proxy for the smoothed new issue one.

<sup>2</sup> The series is given in "An Analytical Record of Representative Municipal Yield Scales" by Quality and Maturity, 1950-65" (Solomon Brothers and Hutzler) and is of bonds of 20 years maturity. These new issue yields are estimates of the yield of a bond with standard characteristics, made judgmentally from the characteristics of actual yields of new issues during the same time period.

<sup>3</sup> On the other hand, it could be argued that the Moody's AAA, Aa, A, and Baa yield series are more relevant to State and local financial decisions because they are widely known and are less subject to irregular fluctuations (including disturbances due to particular issue features) than are quoted new issue yields. This writer inclines to this opinion.

<sup>4</sup> Throughout this paper, "municipals" means long-term security issues of State as well as local governments. This usage conforms to that in financial markets.

<sup>5</sup> In other words, average bond sales (or contract awards, or construction put in place) for a 12-month period are compared with average bond yields during the same period. This gives the same weight to each month for any observation in each series.

But the linkage between interest rates and contract awards, which was somewhat uncertain in the Morris study, becomes even more dubious in the revised and updated series shown on charts 1 through 3. During the last half of 1953 and in 1954, awards for all purposes did not respond at all to credit ease; and charts 2 and 3 show that this lack of response was not due to special movements in sewer-water and education contract awards. While awards did rise during the 1957-58 period of credit ease and fall up to mid-1959, as the interest-sensitivity hypothesis would specify, they rose sharply during a period of very high interest rates (July 1959 to June 1960). The subsequent long decline of bond yields to early 1963 also had no immediate impact on yields. Of course, the accelerated growth of awards after mid-1962 could be designated as a lagged response to earlier bond yield declines; but this would not be consistent with the unlagged covariation of bond sales and awards in 1958 and early 1959, or with the absence of either a current or a lagged covariation during and after the 1953-54 recession.

In short, the simple time series coincidence between interest rates and contract awards, which approximate the start of construction, appears to be uncertain, unstable, or both. Construction put in place, which is a moderately good proxy for capital spending, lags decidedly behind contract awards. This is to be expected, for both technical reasons<sup>6</sup> and the derivation of the series prior to 1963 as a weighted average of current and past contract awards and starts. But this also suggests that any interest rate effects on State and local construction will be felt for many months after a change in rates occurs.

In a multiple regression study of State and municipal borrowing between 1953 and 1960, Michael Tanzer found that interest rate changes had a statistically significant and negative effect on State gross debt issues, with other influences on borrowing being explained by capital expenditures and a liquidity variable expressed as the difference between actual and required balances of cash, U.S. Government securities, and other liquid assets.<sup>7</sup> His preliminary analysis of State and municipal<sup>8</sup> gross debt issues and interest rates led him to suspect that nearly all countercyclical movements in combined State-local debt were concentrated at the State level. In order to make a stringent test of the interest rate sensitivity of such State issues, he eliminated a type known to be interest-sensitive—toll road issues—from these and tested only the residual. Capital expenditures were thought to have a positive effect, and the lagged difference between actual and trend values of liquid asset holdings a negative effect, on debt issues. In his equation explaining municipal debt issues, capital expenditures and his index of interest rate changes were included as independent variables but not his liquidity variable.

<sup>6</sup> According to "Construction Review" (December 1965, p. 4), technical planning and obtaining voter approval financing many types of construction takes normally about 1 year. Bonds are generally sold between 2 and 3 months after approval. The lag between the initial design of projects and the midpoint of work underway, for most projects, is approximately 2 years.

<sup>7</sup> Tanzer, "Review of Economics and Statistics," August 1964, pp. 237-244. Required balances were defined as those shown by a trend fitted to actual balances over the time period of his study.

<sup>8</sup> All units of government except States. The local issue series thus includes issues by townships, counties, special districts, and municipal aid bond districts as well as municipal issues proper. The two debt issue series exclude Federal Government loans and toll road issues. Both are gross of retirements.

Interestingly enough, the index of interest rate changes had the theoretically expected negative effect of municipal as well as State borrowing, despite the absence of a simple association between the two in the time series data. The respective sizes of the rate change partial regression coefficients<sup>9</sup> for the two levels of government, when applied to levels of borrowing, imply much the same moderate effects of tight money as Frank Morris found for his study of combined borrowing classified by functional purposes. Tanzer's results also are not inconsistent with Morris', since the latter found outlays for education and sewer-water systems to be interest-rate insensitive and these purposes have a much larger weight in total municipal than in total State borrowing.

A defect in Tanzer's article is that he does not discuss an objection to his procedure: that capital outlays are influenced by borrowing as well as borrowing being influenced by capital outlays, and that the use of ordinary least squares model using unlagged outlays may consequently generate significant biases in the coefficients. There are answers to this objection, among which a long lead of borrowing prior to capital outlays—making current outlays insensitive to current borrowing—is appealing. But the objection needs to be discussed explicitly.

In a doctoral dissertation,<sup>10</sup> Charlotte Phelps used cross section data<sup>11</sup> to investigate the impact of interest rates on municipal capital projects at different points between initiation and completion. She was able to do this because she limited her study to municipalities keeping capital budgets. Her time period was a short one characterized by a tightening monetary conditions, 1956 and 1957. In the first stage of her regressions, actual interest rates paid were explained by bond quality attributes, size of issue, call status, level of government, and the long-term rate of U.S. Government bonds at time of issue. In the second stage, the gap between authorized and actual expenditures, as a percentage of the former, was regressed against only one variable, percentage changes in interest rates calculated from the first stage regression. Results of this second stage, as Miss Phelps emphasized, should be viewed cautiously because of the small number of her observations—21 municipalities—and associated problems of possible response bias—less than a fifth of the municipalities she had originally sent questionnaires to replied with data on authorized and actual capital outlays.

The second stage regression results state that a rise in the municipal bond rate induces a decline in actual but not in authorized expenditures. This follows because the dependent variable is the difference between lagged authorized and current actual expenditures, as a per-

<sup>9</sup> A partial regression coefficient shows by how many units the dependent variable changes as a result of a unit change in the independent variable with which the coefficient is associated. For example, let the dependent variable be bond sales expressed in billions of dollars, one of the independent variables be the average interest rate paid on bonds sold, and the partial regression coefficient for the interest rate variable be an illustrative  $-0.8$ . This coefficient signified that a rise of 1 point in the interest rate; e.g., from 3 to 4 percent, will reduce bond sales by \$0.8 billion. If other variables influencing bond sales are also changing during a period, as is usually the case, their joint impact on bond sales is measured by multiplying each of these causative variables by its own partial regression coefficient and summing algebraically the products of all such multiplications.

<sup>10</sup> For Yale University. The findings discussed in this paper are only those published in "Yale Economic Essays" (fall of 1961) and abridges in "Impacts of Monetary Policy" (Commission on Money and Credit, 1963).

<sup>11</sup> Cross section studies are those analyzing different units within a single time period.



centage of lagged authorized expenditures; and because the sign of the interest rate change coefficient is positive. Thus, interest rates affect the backlog of public works awaiting completion, increasing it when they go up and reducing it when they decline. But the operative variable is the flow of actual outlays, not the flow of projects approved for starting sometime in the future.

Phelps' findings cannot be extended mechanically to total State and local, or even total municipal, capital outlays, because of the atypical nature of her sample and the response of only about one-fifth of that sample to her questionnaire. And even for the presumably sophisticated borrowers in her sample, effects of tightening credit were moderate by her results; a 7-percent cutback of actual capital outlays in 1957 and a 4-percent cutback in 1959 (extrapolating her results based on 1956 and 1957 data).

An earlier set of unpublished studies by the Federal Reserve, conducted and written by Richard Pickering from 1957 to 1961, also investigated the effect of credit conditions on accelerations and postponements of debt financing and capital outlays. The method used was to survey State and local officials in charge of financing, with written questionnaires followed up by personal interviews conducted by Federal Reserve staff members. Questions focused on postponements and accelerations of bond sales and whether these shifts had been due to changes in the cost of borrowing, to other factors, or to both. One survey covered experience during 1957 and 1958, a second that of 1959 and 1960.<sup>12</sup>

The results of both showed a definite effect of interest rate changes on both accelerations and postponements of bond issues. Thus, 9 percent of total issues (by dollar volume) during the first 6 months of 1958 represented issues which had been postponed earlier because of high interest rates prevailing then. An additional 2 percent consisted of issues made earlier than originally planned because of low interest rates. Similar results were found in the 1960 survey: about 6 percent of issues originally planned for 1959 had been postponed because of high interest rates.

However, the survey findings also indicated that the effects of changing interest rates on capital outlays were very much smaller than those on the timing of bond financing. In the first half of 1958, finance officers indicated that only one-sixth of earlier postponements of bond issues had resulted in delays in construction expenditures. This was less than 2 percent of actual bond financing. None of the financing which was accelerated during the first half of 1958 resulted in any acceleration of construction outlays; nearly all proceeds were invested temporarily in short-term securities or time deposits.

There remains for discussion an empirical study of the determinants of State and local capital outlays by Albert Ando, E. Cary Brown, and Earl Adams, Jr.,<sup>13</sup> in the context of a study of all Federal, State, and

<sup>12</sup>The surveys obtained responses from small and unsophisticated governmental units as well as large units with capital budgets. For example, the 1959 survey included 3,744 out of 7,497 governmental units which were of some financial importance; and the sampling rate for large and frequent borrowers was 100 percent. Virtually all State and local borrowing was accounted for by the universe of small, medium, and large governmental units from which the samples were drawn.

<sup>13</sup>Albert Ando, E. Cary Brown, and E. W. Adams, "Government Revenues and Expenditures," chapter in the "Brookings Quarterly Econometric Model of the United States" (Duesenberry, Fromm, Klein and Kuh, ad editors), Rand McNally & Co., Chicago, 1965.

local revenues and expenditures which is part of the "Brookings Quarterly Econometric Model of the United States." Ando-Brown-Adams (A-B-A) limited their direct investigation of factors affecting State and local capital outlays to the outlays themselves, not attempting to explain borrowing separately. Disaggregating, they used separate equations to explain capital outlays for education, hospitals, administrative and service facilities, highways, sewer and water systems, and all other nonresidential construction.

However, A-B-A used an interest rate (Moody's long-term municipal bond yield) as an explanatory variable in only one of the six equations: that explaining education capital outlays. Even in that equation, the interest rate was entered twice (once as its own level and once as the product of itself times population), and no theoretical justification for including the second variable is given. Hence, the result of a negative regression coefficient for the interest rate times population term but a positive coefficient for the rate itself is difficult to interpret. The other five categories of nonresidential capital outlays<sup>14</sup> are explained entirely by indexes of real needs, spending, and current revenues. Insofar as the gross coefficients of determination<sup>15</sup> are moderately high (between 77 and 95 percent of capital outlay levels are explained), the results tend to show, by implication, that interest rate effects on capital outlays have been very small, very hard to measure, or perhaps both, for years prior to the mid-1960's.

## (2) A MODEL OF THE STATE AND LOCAL BOND MARKET

State and local governments seek borrowed funds in a market dominated by the consequence of one feature of our laws: the Federal income tax exemption privilege for interest received by investors. Institutional and individual adjustments to the longstanding feature have been well described by Roland Robinson in his volume footnoted elsewhere and by Sidney Homer and other contributors to this present volume. These adjustments and the growth of needs for capital outlays have resulted in the following structural features of this security market, features which should be taken explicitly into account by any empirical study of trends and fluctuations in municipal<sup>16</sup> yields and issues:

(1) Other than a diminishing number of State and local governments and public retirement funds, lending institutions which do not pay substantial income taxes on their earnings, relative to the size of the latter, are excluded from this market for all practical purposes. As a result, institutional demand for municipals is uniquely exposed to cyclical and irregular shifts in demand by the remaining institutions.

(2) Among these remaining institutions, commercial banks are dominant in both the average level of takings over credit cycles and shifts in demand during such cycles. The priority given by banks to business loans, and hence the residual nature of their demands for municipals, is well known. But less noted in the literature has been the stimulative effect of rising time and savings deposit liabilities on

<sup>14</sup> Residential outlays are not explained by A-B-A, because of their smallness and irregularity.

<sup>15</sup> This coefficient, for which the symbol is R square, shows the proportion of variation around the mean of the dependent variable (that being explained) which is accounted for by all the independent variables together.

<sup>16</sup> This noun is used henceforth as a synonym for State and local securities together.

bank demand for municipals. A shift from demand to time deposits does not alter the absolute spread between after-tax bank earnings on taxable and tax-exempt investments, other than through indirect and probably small alterations in noninterest costs of operations.<sup>17</sup> But this shift does alter the relative spread between earnings on long-term investments to the advantage of tax exempts, and bank portfolios have shown large increases in tax-exempt holdings after each amendment of regulation Q beginning in 1957.<sup>18</sup> Thus, bank demand for municipals have fluctuated both inversely to business demand for loans and positively with movements in time deposits related to the business cycle, impacts of monetary policy on the public's demand for time and checking deposits, and one-time developments like Federal Reserve amendments to regulation Q.

(3) Demand by individuals is concentrated among those subject to high marginal income tax rates. Such individuals are financially sophisticated when taken as a group, so they would presumably respond to small alterations in the spread between after-tax earnings on taxable bonds and tax-exempt municipals. And this has happened, in fact, as shown by Federal Reserve flow of funds estimates on net acquisitions of State and local securities by all households. But factors other than this spread also play a part in demand, including fluctuations in the wealth of high-tax-bracket individuals. We might speculate that fluctuations in stock market values would have a positive wealth effect on their demand for tax exempts which might well be stronger than the negative effect on their demand from the resulting inverse fluctuations in common stock and tax-exempt bond yields.

(4) We have few facts and even less theory on which to construct hypotheses on the demand for construction and other capital goods by States and local governments and the resulting derived demand for long-term borrowed funds. A theory based on cost-minimizing behavior postulates would have to deal with the collective nature of costs as well as benefits from public work and with difficulties posed by the generations problem analyzed by Prof. James Buchanan.<sup>19</sup> Never-

<sup>17</sup> Let  $r_1$  be the yield of tax-exempt bonds,  $r_2$  be the average yield of taxable loans and investments,  $r_3$  be the average rate paid on time and savings deposits, and the letter "a" be the marginal tax rate (stated as a fraction of taxable profits). We will further assume that banks always have taxable income against which interest paid on time and savings deposits has its full tax value (equal to interest paid times the marginal corporation income tax rate). Taking noninterest costs of operation as fixed, the marginal effect on after-tax profits of a dollar of deposits invested in different ways is as follows:

Demand deposits, invested in taxable investments.....	$= (1-a)r_2$
Demand deposits, invested in tax exempts.....	$= r_1$
Time deposits, invested in taxable investments.....	$= (1-a)(r_2-r_3)$
Time deposits, invested in tax exempts.....	$= r_1-(1-a)r_3$

Hence, a shift from demand to time deposits lowers after-tax profits per dollar of total deposit liabilities by the same amount, i.e., by  $(1-a)r_3$  points, whether that dollar had been invested in taxable or in tax-exempt investments.

<sup>18</sup> Any reasonable allocation of operating costs among tax exempts, taxable bonds and mortgages, and business loans in the aggregate portfolios of commercial banks would indicate that since 1952 at least, tax exempts have been more profitable than the other two classes of investments. Banks have presumably not followed a strict profit-maximizing policy because of institutional constraints as well as the need to have taxable income against which to write off interest costs on time and savings deposits. Given this positive spread between tax-exempt yields and other yields after tax, any shift of funds from demand to time deposits would cause a relatively larger decline in net earnings from taxable investments than in net earnings from tax-exempt investments, favoring a bank portfolio rearrangement into tax exempts. For example, suppose that a bank earned 4.0 percent from tax exempts and 3.0 (after tax) from taxable securities. If the deposit liabilities which financed these investments are shifted from demand to time status by their owners, and if the time deposit rate of interest paid is 3 percent, bank earnings on tax exempts net of interest cost drop from 4.0 to 1.0 percent, i.e., by 75 percent of the former level. But earnings on taxable securities net of interest cost drop from 3.0 to 0 percent, i.e., by 100 percent of the former level.

<sup>19</sup> James Buchanan, *Public Principles of Public Debt*, Homewood, Ill., 1958 and "Confessions of a Burden Monger," *Journal of Political Economy*, vol. 72 (October 1964).

theless, several characteristics of the two demands—for construction and for long-term borrowed funds—stand out in postwar experience. One is the weight of evidence in the empirical studies reviewed in part 1 that interest cost fluctuations affect administrative decisions<sup>20</sup> on at least the timing of bond issues. Another is the impact of Federal grants-in-aid on at least one major component of State and local capital spending (highways and bridges) in periods like 1957-58 when the interstate highway program was getting underway. A third is an apparent lack of influence of long-run changes in interest rate levels on State and local contract awards and construction put in place. A fourth is the difficulty of empirical measurement of real stocks of State and local capital facilities and of relating them to flows of services provided, suggesting that some other variable might be preferable in any model attempting to relate State and local borrowing (or borrowing and taxation) to adjustments between desired and actual flows of services from capital goods and currently consumed factors of production.

(5) State and local borrowing is only a small part of total borrowing. If we confine our attention to the long-term side of the market and look at borrowing net of retirements, we find that net State and local bond issues were only 16 percent of the sum of net bond issues, mortgage lending, and term loans made by all domestic and foreign borrowers in the American market in 1965. Because more than four-fifths of State and local borrowing is always long term, this percentage would be lower if total net borrowing were compared.<sup>21</sup> Because of this low percentage and the unique tax-exemption features of State and local bonds, we might hypothesize that influences flowing from interest rates in general to State and local borrowing would be very much stronger than influences running in the opposite direction.

(6) The market for State and local securities is to a large extent a perfect market, if the latter is defined as one in which funds can always be raised at a price. Most borrowing, measured by volume, is not affected during periods of tight money by the nonprice rationing which is frequently alleged to exist in the market for business loans by commercial banks and other institutional lenders. Evidence for these conclusions is: The similarity of fluctuations in Aaa and Baa municipal bond yields during periods of tightening and easing credit conditions,<sup>22</sup> the absence of effective legal constraints on interest rates such as usury laws to preclude voters and officials from raising funds;<sup>23</sup> the marked

<sup>20</sup> And voter decisions, insofar as interest rate ceilings are included in bond referendums proposals.

<sup>21</sup> The numbers behind the percentage are taken from Sidney Homer, "Factors Determining Municipal Bond Yields" (Solomon Bros. & Hutzler).

<sup>22</sup> In four periods of rising and four periods of falling interest rates on long-term State and local securities, between the end of 1951 and the first quarter of 1966, the Aaa and Baa bond yield indexes (Moody's) changed by much the same number of basic points in all but one case, if account is taken of the long decline in the risk differential since the late 1950's. Only in the first upswing of interest rates (first 1952 quarter to the third 1953 quarter) did the Baa yield rise appreciably more than the Aaa bond yield. Because of the structurally higher level of Baa yields, this indicates that Baa yields fluctuated somewhat less, in percentage terms, than did Aaa yields.

<sup>23</sup> State constitutional and other interest rate ceilings on general borrowing have been high enough, up to recently at least, as not to constrain demand by most lenders. Of course, this does not apply to the frequent specification of interest rate maximums for specific bond issues, in bond referendums or by administrative authority. But such ad hoc decisions on specific bond issues should be viewed as part of the decision mechanism rather than as a given constraint. If voters or officials decide that a project to be financed by a bond issue is undesirable at a rate of more than  $x$  percent, they should not be surprised that their action may inhibit sale of the issue when it is negotiated.

upsurge in issues of relatively high-risk industrial aid bonds during the first half of 1966, a tight period; the additional leverage for overcoming lender risk-aversion which the tax-exemption feature gives to yield differentials; and the impersonal nature of relationships between borrowers and ultimate lenders in a market dominated by public offerings of securities. Each of these statements is subject to some modification; one thinks, for example, of the many symbiotic ties among local governments, banks, and individual large investors. But many of these modifications, upon further examination, would seem to favor rather than inhibit fund raising by low-rated or unrated State and local borrowers. Others, such as the lack of a positive association between size of issue and interest cost of borrowed funds which was found by Roland Robinson and Charlotte Phelps,<sup>24</sup> give small borrowers more leeway during tight-money periods. The general conclusion is still that price factors are dominant in State and local security markets.

The foregoing characteristics of postwar borrowing and capital outlays by State and local governments and of the investors purchasing their obligations suggested a model explaining State and local bond sales which is reviewed step by step in the technical appendix. For the nonspecialized reader, the following description of the model may be adequate for him to appraise the multiple regression findings in table 1.

(1) Institutional peculiarities affecting the behavior of both State and local borrowers and individual and institutional lenders are not overlooked. Instead, variables expressing their impacts on borrowers and lenders are included in the model.

(2) During any given period (the writer hypothesizes), borrowers and lenders in the municipal bond market attempt to change their respective long-term debt and municipal bond holdings to new levels because of changing conditions and (possibly) changes in expectations. If, for example, Federal grants-in-aid generally have a positive effect on the willingness of State and local governments to go into debt (because they find it more convenient to borrow to finance a part of the matchings sums required), an increase in these grants-in-aid will raise the desired stock of debt for State-local borrowers.

As this example may suggest, we hope that we can infer what the average of the desired levels of debt (for borrowers) and bond holdings (for lenders) is, even if we cannot directly observe it, by means of putting observable variables explaining that average into the regression explanation of bond sales. The writer interprets all variables in the left column stub of table 1 except the lagged stock variable ( $S_{t-1}$ ) as helping to explain, in any given period, the level of State and local debt desired jointly by borrowers and lenders.

(3) But during any given time period, the adjustment process described in the preceding two paragraphs is necessarily incomplete because of administrative and bond referendum lags on the State and local borrower side and inertia, brokerage costs of switches, and uncertainty on the lender side. A portion of the adjustment caused by given-period changes in the financial and economic environment

<sup>24</sup> Roland Robinson, "The Postwar Market for State and Local Securities," 1960, table 18. The Phelps finding was that size of issue was positively related to the interest rate on bonds. One reason for this surprising result is that increasing the size of a bond issue generally necessitates bringing more partners into a bond underwriting syndicate. In addition, syndicates have to reach out for more buyers, because of the general preference of both individuals and financial institutions for diversification of portfolios.

is thus carried over to succeeding periods. The particular model used, a variant of the classic Metzler inventory model, theorizes that the largest portion of the ultimate, full adjustment to given-period changes in desired levels of debt is accomplished during the given period itself. In the following and subsequent periods, remaining adjustments become smaller and smaller and are finally insignificant.

Thus, both borrowers and lenders are always reacting to past as well as current changes in desired levels of debt and bond holdings. That is, past as well as current conditions influence current lending and borrowing.

(4) While the writer's model can be developed into one explaining the separate effects of credit and other conditions on lenders and State and local borrowers, this is not done in this paper. The writer plans to use a procedure, known technically as the two-stage least squares method, to identify separate borrower and lender behavior characteristics in a future study. But the partial regression coefficients<sup>25</sup> in table 1 reflect the combined actions of borrowers and lenders for such variables as interest rates which influence both groups' behavior. Other variables, such as Federal grants-in-aid, affect borrowers but not lenders; while still others affect only lenders. The interpretation of regression findings requires a judicious combination of acquaintance with economic theory, knowledge of the market being explained, and commonsense. And the attribution of influences on bond sales to borrower and lender sides of the bond market is no exception to this general principle.

(5) The reader can interpret the following findings in ways different from what the lagged stock adjustment model would indicate, if his experience or intuition suggests that both borrowers and lenders behave differently. One alternative interpretation would be that borrowers and lenders adjust very quickly to changing circumstances. If so, the partial regression coefficients in table 1 should be interpreted straightforwardly, so that an illustrative coefficient of 0.6 means that a unit change in the variable with which it is associated induces six-tenths of a unit change, and no more, in the dependent variable. By this interpretation, the negative coefficient for the lagged stock would mean that high stocks of debt (for borrowers) and bond holdings (for lenders) inhibit further borrowing and lending more than low stocks do. And in any case, the reader should still read each coefficient literally for measuring what actually happens in any given period as a result of a given-period change in, say, the spread between U.S. Government and State-local bond yields during that period. If the coefficient of this spread is 0.6, a unit change in the spread induces a six-tenths of a unit change in bond sales during the current sales.

(6) For technical reasons, all variables except ratios and a special one (called a dummy variable),<sup>26</sup> are divided through by a weighted average of current and past GNP (in current dollars) called permanent income. The nonspecialized reader can interpret this step as a means

<sup>25</sup> See footnote 9 in sec. 1 for a definition of this term.

<sup>26</sup> A dummy variable is designed to show the effect of a one-time shift in the economic environment which affects the dependent variable. The effect is simply measured by the coefficient itself for periods where the dummy variable is coded as 1. For example, an illustrative coefficient of +0.99 means that during periods when the dummy is coded as 1 the dependent variable rises by 0.99 units. For other periods, when the dummy is coded as zero, the effect is naturally zero since any number times zero equals zero.

of removing effects of growth from the explanation so that observations for 1965 become comparable with those from 1952 or 1953. Otherwise, for example, growth in employment in Indiana steel mills might be "explained" very well by the rising number of bars in the city of Gary.

Table 1 presents findings for two multiple regression equations explaining State and local bond sales gross of retirements by semiannual data (seasonally adjusted, except for interest rates) from 1952 through 1965 inclusive. Results are broadly typical of those in other equations which were run by the author on the Federal Reserve computer. In these other runs, State and local bond yields also tended to have positive signs and be highly significant,<sup>27</sup> while the coefficient of the yield on a competing but taxable security (U.S. Government bonds) showed up with negative signs. This also carries over to coefficient for the interest rate spread ( $r_{us} - r_{s1}$ ) in the first column of table 1. Its negative sign means literally that an increase in municipal bond yields favors such bond sales.

These findings do not imply that State and local finance officers should be overjoyed at the thought of rising State and local bond yields relative to yields on U.S. Government securities. It only signifies, if the equation is correctly specified for measuring the combined effects of borrower and lender behavior, that the positive effect of rising yields on willingness to buy bonds more than offset the negative effect of rising yields on the willingness of State-local governmental units to go into debt during the 1952-65 period. And this is obviously only a first step in explaining the combined behavior of such borrowers and lenders, since changes in municipal and other bond yields are both influenced by and influence expectations of future yields. Since most State and local bonds sold are of intermediate to long maturity, we might hypothesize that a rise in State and local bond yields above their expected value would induce potential borrowers to delay bond issues.

The writer attempted to measure expectational effects by specifying four alternate definitions of State-local bond yield expectations and trying each in different regression runs using the same other variables. The variable, in all four cases, is expressed as the spread between the expected bond yield and the actual bond yield.<sup>28</sup> The coefficients for  $(r^{e,t} - r)_{s1}$  in table 1 indicate that a fall in the actual rate relative to the expected one encourages bond sales while a rise in the actual rate relative to the expected one (as happens in a tight money period) depresses bond sales. This was not a quirk of these particular regression equations; the regression coefficient for the expected-actual spread turned up with a positive sign and a magnitude much larger than chance variation could explain almost regardless of the other independent variables used or not used in a regression run.

These regression coefficients for the actual municipal yield and the spread between expected and actual municipal yields suggest that

<sup>27</sup> At the 5-percent level. At this level, "significant" means that there is only a 5-percent chance that sampling errors were great enough to produce a coefficient of a given sign when the true value is zero or has the opposite sign.

<sup>28</sup> A spread was used for technical reasons (to minimize collinearity between the actual and expected yield variables).

TABLE 1.—Regression parameters for equations explaining bond sales as percent of permanent income

Partial regression coefficients	Amount	Amount
$T/Y^p$ .....		0.211 (.039)
$r_{st}$ .....		.672 (.197)
$r_{us}$ .....		-.406 (.265)
$r_{us} = r_{st}$ .....	-0.598 (.193)	
$E/Y^p$ .....	.423 (.157)	
$F/Y^p$ .....	.791 (.264)	-.108 (.373)
$(S/Y^p)_{t-1}$ .....	-.802 (.115)	-.399 (.097)
$(r^i=r)_{st}$ .....	<sup>1</sup> .523 (.156)	<sup>2</sup> .349 (.082)
$V/Y^p$ .....	.104 (.028)	.002 (.028)
$P'$ .....	-.023 (.024)	-.137 (.037)
Reg. Q.....	.35 (.11)	
$C/Y^p$ .....		.578 (.249)
Standard error.....	.11	.11
$R^2$ .....	.82	.82
Durbin-Watson ratio.....	2.55	2.13
Constant term.....	.977	1.54

<sup>1</sup>  $i=1$ .<sup>2</sup>  $i=3$ .

## REGRESSION EQUATION SYMBOLS IN TABLE 1

- $B$ ..... Bond sales.  
 $Y^p$ ..... Permanent income. This is always lagged  $\frac{1}{2}$  year, whether the variable with which it is combined is lagged or current.  
 $S$ ..... State and local debt minus debt repayments during the following period. Excludes miscellaneous accruals, trade debt, and debt to U.S. Government.  
 $T$ ..... Time and savings deposits at commercial banks.  
 $E$ ..... Compensation of employees plus "other purchases" of State and local governments, in national income and product accounts. (E thus equals expenditures on goods and services less construction, in the same accounts).  
 $F$ ..... Federal grants-in-aid to State and local governments.  
 $P'$ ..... Construction cost index (Department of Commerce composite) as percent of implicit GNP deflator. (The former is inverted to the same base as the latter.)  
 $r_{us}=r_{st}$ ... Interest yield on long-term U.S. Government bonds minus the Moody's triple-A municipal yield.  
 $(r^i=r)_{st}$ . Expected interest rate on municipals, by the  $i$ th definition of expectations, minus the actual interest rate on municipals ( $i=1, 2, 3, 4$ ). The  $i$  definitions of expected interest rates are as follows:  
 $i=1$  Expected rate equal the sum of the current and past 2 half-year values with weights of 0.25, 0.67, and 0.08 going back in time.  
 $i=2$  Expected rate equals trend values for 2 trends, one for 1952-59 and the other for 1960-65.  
 $i=3$  Expected rate equals the average rate during the preceding half year.  
 $i=4$  Expected rate equals the past half-year rate plus its change from the preceding half year.  
Reg. Q... Dummy variable for the amendment to Regulation Q at the beginning of 1962 (coded 0 for 1952-61, 1 for 1962-65, half years.)  
 $C$ ..... Contract awards by State and local governments.  
 $V$ ..... Stock price index (Moody's 500 shares) with a 1958 base.

NOTE.—All dollar magnitudes are seasonally adjusted, including the stock of State and local debt(s). All percentages and rates (including interest rate spreads) are scaled in  $\frac{1}{100}$  of a point; for example, the municipal bond yield, 338, should be read as 3.38 percent. The dependent variable is itself a percentage written in basis points, like every independent variable except Reg. Q. All percentage numerators and interest rates shown in table 1 are current period values except the debt stock(s) variable which is lagged by  $\frac{1}{2}$  year.



borrowers are more influenced by expectations of future bond yields, while lenders are more influenced by current spreads between yields on tax-exempt municipals and yields on taxable bonds and mortgages. This hypothesis appears plausible on several counts. Within broad limits, both institutional and individual investors can rearrange their portfolios at their own discretion, enabling them to react quickly to new situations. On the other hand, State and local borrowers are inhibited against one form of arbitrage—selling tax exempts and investing the proceeds in higher yielding U.S. Government securities—by the fear that they will be charged with abusing the tax exemption privilege. And while some State and local units have issued callable bonds, decisions to call or not to call require the formation of expectations on future interest rates just as much as do decisions on whether to postpone (or to accelerate) a bond issue for financing construction of facilities.

Hence, we might expect that bond buyers would generally react to the current situation, avoiding the troublesome business of peering into a murky future; while State and local borrowers would attempt to forecast because such forecasts and actions based on them offer the only means of minimizing interest costs of borrowing in the long run. Accordingly, the writer interprets the interest rate spread coefficient as measuring primarily the responses of bond buyers, while the expectations coefficient measures the responses of State and local borrowers to changing interest rates.

The institutional variables in table 1 generally performed well in each regression, having the expected sign (positive in each case) and being much higher than their standard errors.<sup>29</sup> The common stock price index (expressed as a percent of permanent income) is hypothesized to measure deviations in the wealth of high-bracket individual taxpayers from the wealth of the community (measured by permanent income itself). The regulation Q dummy variable was included to test whether the great expansion of time and savings deposits at commercial banks after the end of 1961 had the expected positive effect on overall supplies of funds to State and local borrowers. The positive sign of the regulation Q coefficient, as well as the repeated good results from another bank demand variable tried (time and savings deposits as a percent of permanent income), tends to confirm the relationship just hypothesized. Federal grants-in-aid apparently have a complementary rather than a substitutive relationship to State and local borrowing, partly because many grants are on a matching basis.

The variable, compensation of employees plus nonconstruction capital outlays plus miscellaneous purchases, was tested as an index of State and local needs for construction outlays. Besides being a better theoretical measure of these needs than the two other variables tried (contract awards and construction put in place),<sup>30</sup> it generally produced more stable regression coefficients in the regression runs.

<sup>29</sup> The standard error of a partial regression coefficient is an index of the extent to which the value of the coefficient could vary as a result of random or quasi-random factors. The higher the value of the coefficient relative to its own standard error, the less will be the proportional variation of coefficients found by repeated drawings of data for regression purposes.

<sup>30</sup> State and local governments faced with an expansion of needs for services can react immediately by hiring more employees, while construction of new facilities takes time. Compensation of employees is also better for a technical reason: Its regression coefficient is less apt to be biased by the feedback of changes in bond sales on the independent variable than is that for either contract awards or construction.

The lagged stock-adjustment coefficient (that for  $S/Y^p_{t-1}$ ) was also consistently of the right sign (negative) and usually implying that between four-tenths and eight-tenths of a discrepancy between desired and actual stocks was eliminated during each semiannual period. This range appears quite believable because the statistical coefficient is an average, with unknown weights, of the separate reaction-speed coefficients of borrowers and lenders.<sup>31</sup> While bond buyers may be presumed to act fairly rapidly in adjusting their portfolios, many State and local potential borrowers prefer, or are forced, to move slowly because of constitutional and other requirements for bond referendums and lags in the administrative process.

In conclusion, the results presented in table 1 and others not shown are encouraging. They do indicate a significant interest rate impact on State and local borrowing, although more on the timing of issues than on total borrowing in the long run. And the hypothesis of sensitivity of borrowers and insensitivity of lenders to expectations would have interesting implications if it is supported by further research. Another suggestion of the findings—that State and local borrowers are insensitive to long-run, quasi-permanent changes in interest rates while lenders are not—also deserves further investigation.

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<sup>31</sup> See technical appendix.

## TECHNICAL APPENDIX

The structural features of the market for State and local government bonds which are described in section 2 of the text suggest the following model of that market. On the demand side, borrowing of State and local governments is positively affected by the following variables: Needs for constructing; low prices for construction relative to the general price level; and Federal grants-in-aid.<sup>1</sup> It is also positively affected by a divergence between expected and actual rates of interest paid on new debt and negatively influenced by the stock of debt outstanding relative to the tax base for servicing it and by stocks of liquid assets (an alternate source of finance). In addition, borrowing may be influenced negatively by levels of interests rates, although the studies analyzed in part 1 suggest that fluctuations around trend rather than the upward trend of rates during the 1950's influenced borrowing.

However, adjustment of borrowing to the above factors requires time because of decision and administrative lags in the borrowing process and because many State and local units borrow only after construction projects have been approved making causation flow from interest rates to construction decisions to borrowing). Since this required reaction time for all State and local units together may be longer than the semiannual periods chosen for analysis, the writer hypothesizes that collective behavior can be depicted by a stock-adjustment demand function of the following type:

$$(1) \quad B_t = \delta_1 (\beta'_1 X'_{t-1} - S_{t-1})$$

when  $B$  is borrowing (gross of debt repayments and thus equal to bond sales),  $X'_t$  represents a vector of variables influencing the desired (target) stock of debt, the betas are the coefficients relating these factors to the desired stock of debt,  $S_{t-1}$  equals the lagged stock of State and local contractual debt *minus* current debt amortization,<sup>2</sup> and delta sub-one is the familiar reaction-speed coefficient.

<sup>1</sup> Grants for construction itself or for purposes necessitating construction lower the cost of construction relative to the cost of current outlays financed out of current tax revenues, when each alternative is related to the stream of benefits expected to flow from it. Grants for purposes not involving or necessitating construction would tend to have the opposite effect, favoring more spending on the cheaper (to local taxpayers) current services than on construction financed by borrowing. However, the writer's review of the functional components of total Federal grants-in-aid showed that the first-defined type of grant dominated the total both as to level and changes.

<sup>2</sup> Current debt amortization is removed from the lagged stock of debt because what might be called the classical stock-adjustment model is inappropriate to the behavior of both borrowers and lenders in municipal bond markets. That classical model, which is used widely today in such studies as those by Frank de Leeuw in the Brookings quarterly econometric model of the U.S. economy, assumes implicitly that only net changes in stocks matter in the analysis. This is tantamount to saying that while decisions on altering stocks during a period are subject to behavior lags, those on maintaining the value of the stock at the beginning of the period are not subject to behavior lags. For example, let  $S$  be the actual stock of State and local bonds,  $S^*$  be the desired stock,  $\Delta S$  be net changes in the actual stock between the beginning and end of the period,  $A$  be amortization payments received by bondholders during the period, and  $B$  be bond sales during the period. The classical stock-adjustment model

$$\Delta S_t = \delta (S_t^* - S_{t-1})$$

implies that

$$B = \delta (S_t^* - S_{t-1}) + A_t$$

since bond purchases are definitionally equal to the algebraic sum of net changes in bond-holdings and amortization payments received by bondholders. But if inertia, brokerage

An alternative hypothesis is that voters and public officials attempt to adjust actual to desired stocks of buildings and equipment, rather than actual to desired stocks of debt. Or, some weighted average of real stocks of capital, service flows from that capital, and debt would be relevant to decisionmaking. However, the difficulty of measuring stocks of buildings and equipment statistically is compounded by problems of relating that stock to flows of present and future services. The alternative service-flow approach, while perhaps more relevant to voter and official thinking, is troubled by just about the same problems of measurement. On the other hand, stocks of debt are measurable and known to most public officials. An increase in debt levels raises amortization and interest payments and therefore tax burdens in an immediate and measurable way. In addition, increases in debt relative to the tax base may have an unfavorable impact on bond ratings and hence the future cost of borrowed funds.

On the supply-of-funds side of the municipal bond market, the review of the literature in part 1 and the immediately preceding discussion suggest the following variables as influential: Municipal bond yields; yields on competing, taxable securities; time deposits at commercial banks; some measure of the wealth of individuals in high tax brackets; some measure of the difference between expected and actual municipal bond yields; the stock of liquid assets of State and local governments (positively related to supplies of loanable funds, since such assets help to insure that debt amortization payments are met); and the stock of State and local bonds in individual and institutional portfolios (exercising a negative influence on lending, as long as the relevant elasticities of substitution are less than infinite). This list of variables, and the supposition that lender reactions may require more time than the semiannual periods of our data, suggest the following stock adjustment model like for borrowers in its form:

$$(2) \quad B_t = \delta_2(A'_i Y'_{it} - S_{t-1})$$

when delta sub-two is the *lenders'* reaction-speed coefficient, the  $Y$  primes are a vector of variables positively and negatively affecting the desired stock of bonds in the collective portfolio of all lenders and bondholders, the  $A$  prime are the coefficients relating these variables to the desired stock of bonds, and  $B$  and  $S$  are defined in the same way as for borrowers.<sup>3</sup>

costs, and uncertainty induce bondholders to postpone a part of the net change in bondholdings to later periods, why should not the same factors operate with respect to checks received in repayment of debt? The bondholder always has the alternative of doing nothing, and doing nothing during a period means that the stock of debt at the beginning will be reduced at the end by the amount of debt amortization received. And reinvestment of the incoming flow of amortization payments demands the same attention and involves the same steps as the portion of bond purchases which result in a net change in holdings. Reinvestment and net investment, in short, are Siamese twins; and gross, not net, investment should be explained by the lagged stock adjustment model. Similar conclusions apply to State and local decisions on gross and net borrowing.

But whichever theory the reader prefers, the delta coefficients in equations 1 and 2 are not the delta coefficients in the classical stock adjustment model. However, differences between the writer's and the classical delta coefficients are very minor for values of either which are moderate to large in size, as long as we can make another assumption. This is that current period amortization is a constant fraction of the lagged stock of bondholdings (or debt, for State and local governments) over time. Given this assumption, which is very realistic for the period since 1951, the relationship between the classical reaction-speed coefficient and the writer's delta coefficients in equations 1 and 2 is as follows:

$$\delta = \delta'(1 - \alpha) + \alpha$$

When alpha is the constant proportion of current debt repayment to the lagged stock of debt, delta is the classical reaction-speed coefficient and delta prime is the writer's reaction-speed coefficient. Since amortization payments have always been less than a tenth of the lagged debt stock for State-local governments, simple calculations show that as long as delta is above 0.3 or so, delta and delta prime are very close to each other. And the same is necessarily true in both equations 1 and 2 of the text, since alpha is the same for both. <sup>3</sup> As before, the lagged stock is defined as the sum of the actual lagged stock and current debt amortization. See footnote 2 for the general justification for this special definition of the lagged stock. The reasons given there, mostly with respect to bondholder behavior,

The identification problem of isolating the separate reaction-speed coefficients of borrowers and lenders is apparent; but it is bypassed in this study except for some speculations later. This is done because the combined delta coefficient of both borrowers and lenders is a weighted average of the separate coefficients of borrowers and lenders (as is shown in the discussion following). The weights themselves are the structural coefficients of the eliminated variable when equations 1 and 2 are combined into one equation. As long as the coefficients of the eliminated variable are stable, the average reaction-speed coefficient in equation 3 shown later will be stable; and this will be sufficient for such purposes as prediction. If the coefficients of the eliminated variable are not stable, the model will not be useful in any form in which it might be tried, so we have little or nothing to lose for prediction purposes by not going further into lender and borrower behavior separately. In any case, the reader should keep in mind the fact that the coefficients shown in table 1 do not reflect the behavior of borrowers separately or lenders separately but the combined results of their actions (except for the many cases where theory and experience suggest that a variable is related to only one side of the market).

For measuring needs of State and local governments for borrowed funds, three variables are tried successively in different regression runs. The first is construction put in place, which is the familiar Bureau of the Census series reprinted in Construction Review. The second is contract awards, from the same source and (like construction put in place) including projects financed by Federal grants-in-aid as long as the ultimate owner is a State or local government. The third variable is the sum of wage and salary payments by State and local governments and other nonconstruction payments by the same units. An alternative approach, measuring "real" demand by indexes of needs, was considered initially; but trial indexes were either like straight lines over time or had cycles unrelated to any in interest rates or general business conditions. In addition, the indexes considered faced a host of objections on their theoretical meaningfulness. The three series used, on the other hand, reflect actual behavior related to needs. Of these three, the third (nonconstruction spending by State-local governments) appears closest to the conceptually desirable index of needs because of the flexibility with which needs can be met by hiring additional employees. In addition, this series has the econometric advantage of being more clearly exogenous to markets for State and local bonds than are either contract awards or construction put in place.

Expectations on interest rates, of course, are known only to the gods, or perhaps to gifted technicians.<sup>4</sup> Four definitions of these were tried in successive equations. (1) A naive hypothesis is that expected rates of period  $t$  equal rates in period  $t-1$ . (2) A somewhat more credible hypothesis is that expected rates during period  $t$  equal the past rate *plus* the past change in the rate, that is, that past changes are extrapolated into the present. (3) A hypothesis related to the definition of expectations as based on some concept of normal rates and return to them is that expected rates equal their trend value; trend is judged empirically by this writer from his knowledge of financial markets and the history of the period. (4) A hypothesis related to regressive expectations is that expected rates during a given period equal a weighted average of rates in preceding periods and perhaps the current period as well.

Going back to equations (1) and (2), let us modify the notation to express the fact that some of the variables in the  $X$  and  $Y$  vectors are common to both equations (for example, the municipal bond yield affects the behavior of both borrowers and lenders). These will be taken out of these vectors and relabeled as a vector of one or more variables,  $Z'$ . The  $X$  and  $Y$  vectors henceforth include only those variables present in the demand (but not the supply) and the supply (but not the demand) equations respectively.

appear even stronger for State and local financial behavior. Could anyone really argue that these governmental units want to replace debt being retired with new debt so as to keep the stock of the latter constant? Or that different considerations and behavior lags apply to the portion of bond issues which happen to be offset by current amortization of old debt and to the portion which is not so offset? A decline in debt from amortization, for technical reasons related to the serial form of most State-local debt, does not result in a declining tax burden for debt interest and amortization payments, except over very long periods.

<sup>4</sup>David Meiselman, *The Term Structure of Interest Rates*, Prentice-Hall, Englewood Cliffs, N.J., 1962.

The next step is to combine equations (1) and (2) by eliminating one variable,  $Z_m$ , common to both. This is done by subtraction and manipulation of the resulting bunches of structural coefficients attached to each variable. The variable chosen for elimination is the stock of liquid assets held by State and local governments. As can be seen from the solutions footnoted,<sup>5</sup> the relationships between the structural coefficients of equations (1) and (2) and the structural coefficients in the combined equation:

$$(3) \quad B_i = \delta' [C_i' X'_{it} + D_i' Y'_{it} + E_k' Z'_{kt} - S_{t-1}]$$

are interesting.<sup>6</sup> The equation (3) reaction-speed coefficient, delta prime, is a weighed harmonic mean of the demand and supply reaction-speed coefficients. The equation (3) structural coefficient of variables present in one but not the other of the demand and supply equations ( $C'$  and  $D'$ ) equal their respective equation (1) or (2) coefficients divided by the ratio of one to both of the target coefficients of the eliminated variable. And the equation (3) structural coefficients of variables common to both demand and supply equations equal the weighted mean of the demand and supply coefficients (counting the signs of these). (The weights are the structural coefficients of the eliminated variable.) Therefore, estimates of  $C'$ ,  $D'$ , and  $E'$  would be biased as estimates of the "true" structural coefficients; but we can at least guess at the extent of the bias by means of judgmental estimates of the coefficients of the eliminated variable ( $\beta_m$  and  $A_m$ ).

This has not been done with respect to the absolute magnitudes of these two last coefficients, because our information is too slender for setting even judgmental limits within which the true values probably lie. However, we might speculate as to the *proportion* between them for judging whether the delta-prime coefficients in table 1 (equal to those for lagged State and local debt as a percent of permanent income) appear to be reasonable. For a number of reasons, in-

<sup>5</sup> Let  $Z_m$  be the variable to be eliminated in combining equations 1 and 2 (it equals liquid assets of State and local governments, in our case). (The beta and A coefficients for that variable, in equations 1 and 2, respectively, are  $\beta_m$  and  $A_m$ . Keeping the notation the same as in these two equations, and understanding that the vector  $Z'_k$  is now bereft of the eliminated variable ( $Z_m$ ) it can be shown that the relationships are as follows between the structural coefficients in equation (3) and the structural coefficients in equations (1) and (2):

$$\delta' = \frac{\delta_1 \delta_2 (A_m + \beta_m)}{\delta_1 \beta_m + \delta_2 A_m} = \frac{1}{\frac{\beta_m}{\delta_2 (A_m + \beta_m)} + \frac{A_m}{\delta_1 (A_m + \beta_m)}}$$

$$C_i' = \beta_i' \left( \frac{A_m}{A_m + \beta_m} \right) = \frac{\beta_i'}{1 + \frac{\beta_m}{A_m}}$$

$$D_i' = A_i' \left( \frac{\beta_m}{A_m + \beta_m} \right) = \frac{A_i'}{1 + \frac{A_m}{\beta_m}}$$

$$E_k' = A_k' \left( \frac{\beta_m}{\beta_m + A_m} \right) + \beta_k' \left( \frac{A_m}{A_m + \beta_m} \right)$$

as long as we assume that liquid assets ( $Z_m$ ) have a negative impact on borrowing (since they are an alternative source of finance for construction) but a positive impact on willingness to lend.

<sup>6</sup> Equations (1) and (2) can also be combined by addition without eliminating any variable which is common to both. The writer preferred to avoid this because it is impossible to eliminate the borrower and lender reaction-speed coefficients from the clusters of structural coefficients equivalent to the structural ones for each target-determining variable in equation (3). However, the reader is welcome to interpret findings in this way, if he is of the opinion that State and local liquid asset holding were unimportant or unstable determinants of both the demand for and the supply of bonds.

cluding the finding of Tanzer of an appreciable and negative relationship between "surplus" liquid assets and borrowing as well as the minor weight given to liquidity by Moody's analyses of individual bond issues which the writer has read, it is highly probable that much more weight is given to liquidity by borrowers than by lenders. On the assumption that between 2.5 and 5 times as much weight was placed by borrowers,  $B_m$  is between 2.5 and 5 times greater than  $A_m$ . Calculations based on this assumption and values found for delta-prime in the regression runs found that  $\beta_m$  and  $A_m$  would diverge from delta-prime in equation (3) by about the same number of basis points. Since we might expect lenders to have significantly faster reaction reflexes than State and local borrowers, for reasons discussed earlier, this implies that the general finding of delta-prime coefficients between 0.5 and 0.8, with the most plausible finding that at or slightly below 0.8, means that lenders make nearly all adjustments to their portfolios based on current conditions within the current semiannual period, while borrowers carry over a considerable but not suspiciously large proportion of the ultimate adjustment to following periods. While speculative, these calculations suggest that the combined reaction speed (delta prime) coefficients found in the regression runs are, at the least, not implausible in magnitude.

Going to these runs, equation (3) was tested in its statistical form with the modification that all stock and flow variables, including specifically the lagged stock of State-local debt, were transformed to percentages of lagged permanent income (with Friedman weights). Several reasons for this suggested themselves besides the statistical convenience of removing collinearity among the independent variables because of growth and postwar trends in credit and monetary conditions. Permanent income is defensible both as an index of the combined total of human and nonhuman wealth (presumably applicable to aggregate investor portfolio decisions) and as an index of the tax base for financing interest and amortization on State and local debt (and hence of the burden of that debt on voters). Time and savings deposits at commercial banks, Federal grants-in-aid, and other "institutional" variables are likewise expressed as percentages of permanent income because they are related to desired debt and asset levels of borrowers and lenders respectively. A word might be said about the variable, the Standard & Poor's stock price index as a percent of permanent income. Because of the scarcity of stock issues relative to retirements and value of stock outstanding, stock prices are an approximation to an index of the value of all shares outstanding, for the period since 1951 at least. Thus, the writer interprets increases or decreases in the percentage of stock prices to permanent income as measuring the extent to which the wealth of high-tax-bracket individuals is rising or declining relative to the wealth of the rest of us. If this is correct, this variable should catch changes in the demand of wealthy individuals for State and local bonds which are not reflected in aggregate economic growth and gross saving.

Only one variable was used in either level or interest rate spread form to measure the influence of yield changes in investments competing with municipals on the supply of loanable funds. That was the long-term yield of U.S. Government securities. This limitation was suggested by the very high collinearity of most long-term interest rates and the need to experiment with alternative measures of State and local needs for borrowed funds and of the expectations of borrowers as to future interest rates.

An accounting defect in the analysis is that the lagged debt stock variable includes short as well as long-term State and local contractual debt while the debt flow variable (bond sales) is limited to long-term debt. While the influence of this difference is judged to be very minor, because of the very small proportion of new short-term borrowing relative to bond sales in nearly all post-war periods, it should be kept in mind by the reader.

## CHAPTER 19

# Relative Tax Advantages to Different Investor Groups in Acquiring or Holding Municipal Securities\*

### INTRODUCTION

Since the beginning of the income tax, the Internal Revenue laws have provided that interest on obligations of States, territories, possessions of the United States, any political subdivisions of the foregoing, or of the District of Columbia, has been excluded from the gross income of any holder of these obligations.<sup>1</sup>

The exemption applies not only to the coupon rate of interest stated on the municipal obligations, but also to gains attributable to the discount at which such obligations were originally issued, whether or not the obligations were issued on a discount basis. Each respective holder is entitled to exemption of gain attributable to original issue discount in that proportion of the original issue discount which is equal to his holding period divided by the total period for which the obligation will be outstanding.<sup>2</sup>

Conversely, deductions are not permitted for amortization of a premium paid, whether on issuance or thereafter, for the purchase of tax-exempt securities because the premium is a direct cost of earning tax-exempt interest.<sup>3</sup> Taxpayers who do not amortize the premium must generally reduce the adjusted basis of the obligation for purposes of determining gain or loss on sale or exchange.<sup>4</sup> This rule prevents holders of tax-exempt obligations from indirectly charging a non-deductible expense against taxable income in the form of a loss upon disposition.

The gain on disposition or retirement of municipal bonds, other than that attributable to original issue discount, qualifies for capital gains treatment, subject to a maximum tax rate of 25 percent if held for more than 6 months,<sup>5</sup> to the same extent as obligations the interest on which is taxable. Unless municipal bonds are inventory in the hands of the holder, or are held by him for sale in the ordinary course of trade or business, they are capital assets.<sup>6</sup>

In order to prevent recipients of tax-exempt income from being doubly benefited, the Internal Revenue Code provides several restrictions on the deductibility of expenses connected with earning exempt income.

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\*Prepared in the Treasury Department, Office of the Secretary, with minor editing by committee staff.

<sup>1</sup> Internal Revenue Code of 1954, sec. 103.

<sup>2</sup> In the case of obligations issued at a discount basis and payable without interest at a fixed maturity date not exceeding 1 year from the date of issue, the original issue discount shall not be considered to accrue until the date the obligation is disposed of. Internal Revenue Code sec. 454(b).

<sup>3</sup> Internal Revenue Code of 1954, sec. 171(a)(2).

<sup>4</sup> Internal Revenue Code of 1954, sec. 1016(a)(7).

<sup>5</sup> Internal Revenue Code, sec. 1201.

<sup>6</sup> Internal Revenue Code, sec. 1221.



First, all expenses (other than interest) otherwise deductible as an expense for the production of income are not deductible if allocable to tax-exempt income.<sup>7</sup> This rule is generally applicable only to investment expenses, and not to trade or business expenses. Thus, if the exempt interest is income of a trade or business, such as a bank, the expenses of earning that interest are not subject to disallowance under this rule.

Second, the code provides that interest on indebtedness incurred or continued to purchase or carry obligations, the interest on which is exempt, is not deductible.<sup>8</sup> This is so regardless of whether the exempt income is investment income or income of a trade or business.

Obligations of State and local governments are not accorded any preferential treatment for purposes of estate and gift taxation. In each case, tax is generally imposed on the fair market value of the obligation at the time it is transferred or bequeathed.

The foregoing rules are rules of general applicability, regardless of whether the taxpayer is an individual, a trust, or a corporation. Significant departures, however, result in the case of the following holders of tax-exempt obligations, classified by institutional group. The following analysis, however, does not treat of situations where the municipal bonds are held as inventory by dealers in such obligations.

#### 1. COMMERCIAL BANKS

While State and local obligations held by commercial banks may qualify as capital assets, gains on disposition of which are taxed at 25 percent if held for more than 6 months, net losses on the sale or exchange of such obligations which are capital assets may, in effect, be deducted against ordinary income. Ordinarily, capital losses of corporations may not be used to offset ordinary income, but may be used to offset capital gains of the taxable year or future years. The bank rule, however, applies only if the losses of the taxable year from sales or exchanges by banks of obligations issued by corporations, including municipal corporations, exceed the gains for the taxable year from such sales or exchanges.<sup>9</sup>

With respect to interest expense paid or accrued by commercial banks on indebtedness incurred or continued to earn tax-exempt interest, interest is not disallowed on deposits. The general disallowance rule has not obtained in the case of interest on deposits of commercial banks for historical reasons but is, of course, applicable to interest on other obligations of banks such as notes and debentures.

#### 2. MUTUAL SAVINGS BANKS

Mutual savings banks which meet specified tests of similarity to national banks may, as in the case of commercial banks, deduct their net losses on sales or exchanges of obligations, including municipal obligations, for the taxable year against ordinary income.<sup>10</sup>

<sup>7</sup> Internal Revenue Code, sec. 265(1).

<sup>8</sup> Internal Revenue Code, sec. 265(2).

<sup>9</sup> Internal Revenue Code, sec. 582(c).

<sup>10</sup> Internal Revenue Code, sec. 582(c).

If the mutual savings bank is substantially engaged in the general banking business, interest on deposits may not be disallowed on the ground that it is interest on indebtedness incurred or continued to purchase or carry tax-exempt obligations.

### 3. SAVINGS AND LOAN ASSOCIATIONS

The rules applicable to commercial banks for purposes of allowing ordinary expense deductions for net losses during a taxable year on sales or exchanges of securities are also applicable to savings and loan associations.<sup>11</sup>

### 4. LIFE INSURANCE COMPANIES

Prior to enactment of the Life Insurance Company Income Tax Act of 1959, life insurance companies were generally taxed on net investment income less a deduction for the policyholders' nontaxable share of net investment income determined on an industrywide basis as a stated percentage of net investment income. Net investment income was defined as the total income from investments less tax-exempt interest and investment expenses. The industrywide percentage was calculated in order to exempt from tax industry additions to policyholders' reserves. The Life Insurance Company Income Tax Act of 1959 provided that each item of exempt and taxable income, of which total life insurance company investment income is composed, shall be allocated pro rata between the policyholders' nontaxable share and the company's taxable share.<sup>12</sup> The effect of allocating each item of income, whether or not exempt, between the policyholders and the company is to prevent the double deduction of exempt interest by means of an additional deduction for additions to reserves without consideration of the portion of that increment attributable to exempt interest. This legislative formula was recently upheld by the Supreme Court against objections that it placed a tax on interest from municipal bonds in *United States v. Atlas Life Insurance Company* (381 U.S. 233 (1965)).

The provisions of the code for taxation of life insurance companies specifically provide that no amount shall be deducted as interest on indebtedness incurred or continued to purchase or carry tax-exempt obligations.<sup>13</sup>

### 5. FIRE AND CASUALTY INSURANCE COMPANIES

Fire and casualty insurance companies, including those organized by the issuance of stock, and certain fire and flood insurance companies operated on a mutual basis, are at present basically taxed in the same manner as other corporations. This being so, the problem in the *Atlas* case relating to the allocation of tax-exempt interest between the company and the policyholders does not arise.

With respect to expenses incurred in earning tax-exempt interest, the general provisions applicable to deductibility of expenses of earning tax-exempt interest are applicable to fire and casualty insurance companies. These rules provide that those expenses (other than in-

<sup>11</sup> Internal Revenue Code, secs. 581, 582(c).

<sup>12</sup> Internal Revenue Code, sec. 804.

<sup>13</sup> Internal Revenue Code, sec. 805(e).

terest) which are not expenses of a trade or business and which are allocable to production of tax-exempt interest are not deductible. Interest on all indebtedness incurred or continued to purchase or carry tax-exempt obligations is not deductible.

#### 6. STATE AND LOCAL PUBLIC RETIREMENT FUNDS

The investment income of funds created by State and local governments to provide for the retirement of their employees is normally exempt from tax, either on the ground that they are qualified pension plans or that they are instrumentalities of the State or local government. This being the case, no tax advantage inures to the fund from investing in municipal obligations.

#### 7. STATE AND LOCAL GOVERNMENTS

State and local governments and their instrumentalities and agencies are exempt from Federal income taxation. There is, therefore, no tax benefit to be derived from investing idle funds in municipal obligations.

#### 8. NONINSURED PENSION FUNDS

Certain pension funds which do not discriminate between employees and meet other tests for qualification are exempt from tax, and are accordingly not taxed on their investment income. Therefore, they do not receive any tax advantages by virtue of investments in municipal obligations as compared to taxable securities.

The investment income of pension trusts which do not meet the qualifications for exemption from tax is taxed to the trust. Therefore, investments in municipal securities may be advantageous because of the interest exemption.

#### 9. PERSONAL TRUST FUNDS

Personal trust funds are taxed at the rates applicable to individuals on income which is not distributed to beneficiaries. Beneficiaries, on the other hand, are generally taxed on distributions which do not exceed the current income of the trust. However, each item of trust income currently distributed to the beneficiaries preserves its character in their hands in the proportion that such item of income bears to the total income of the trust.<sup>14</sup> Thus if a trust receives tax-exempt interest on municipal bonds which it distributes currently, the beneficiaries are not taxed on the amount of the distribution representing tax-exempt interest. If the trust retains the municipal bond interest, such interest is not taxed to the trust.

In determining the tax-exempt interest allocable to distributions received by beneficiaries, deductions must also be allocated between the various items of income in order that the beneficiaries may not be allowed to offset taxable items of income by expenses attributable to exempt interest.<sup>15</sup>

<sup>14</sup> Internal Revenue Code, secs. 652(b), 662(b).

<sup>15</sup> *Ibid.*

## 10. MUNICIPAL BOND FUNDS

Investment funds which are not under present regulations, associations taxable as corporations and which hold municipal obligations exclusively or predominantly are not taxed on the receipt of interest on such obligations, and distributions to the holders of certificates of beneficial interest preserve their tax-exempt character. The shareholders are thereby relieved of the usual second layer of tax which would be imposed if the fund were treated as a corporation.

## 11. NONFINANCIAL CORPORATIONS

Corporations are not taxed on interest from State and local obligations, but receipt or accrual of such interest results in an increase of the earnings and profits of the corporation. Because the amount of current or accumulated earnings and profits generally determines the taxability of corporate distributions to shareholders, the tax-exempt interest does not retain its exempt character when distributed to shareholders. The shareholders are taxed notwithstanding that the source of the distribution is exempt income. Thus, the interest exemption only applies to one level of taxation of corporations and shareholders.

## 12. INDIVIDUALS

The general rules applicable to individuals holding municipal securities are those enumerated in the beginning of this chapter.

## CHAPTER 20

### Comparison of the Interest Cost Saving and Revenue Loss on Tax-Exempt Securities\*

The exemption of interest paid to holders of State and local government securities from Federal income tax lowers the borrowing costs to State and local governments since holders attach a premium to the exemption feature in the form of lower interest. This chapter examines the relative magnitudes of (1) the interest cost saving to State and local governments and (2) the reduction in Federal revenues due to tax exemption.

#### A. THEORETICAL ANALYSIS OF THE BASIS OF THE YIELD DIFFERENTIAL BETWEEN TAXABLE AND TAX-EXEMPT SECURITIES

The differential in yield between taxable and tax-exempt bonds of comparable quality depends chiefly upon the value of the exemption to marginal investors.<sup>1</sup>

The relative return on investment at the margin on a taxable security yielding 5 percent or a tax-exempt security of comparable quality yielding 30 percent of this, 5 percent or 1.5 percent, would be a matter of indifference to an investor with a marginal tax rate of 70 percent. Both offer the same after-tax marginal return. However, an investor whose marginal tax rate was 50 percent would find that unless the return on the tax-exempt security reaches at least 50 percent of the yield on a comparable taxable security, the after-tax yield on the taxable security would be better than that on the tax-exempt security. For an investor taxable at 20 percent the break-even yield on tax-exempts would be 80 percent of the yield on taxable securities. The term "investors" in these comments covers both individual and institutional investors.

Given their investment preferences, investors whose income is taxed at the highest marginal tax rate, will hold increasing amounts of tax-exempt securities as the yield on tax-exempts rises above 30 percent of the yield on taxables. Similarly, investors whose income is taxed at 50 percent will demand an increasing amount of tax-exempts only if the yield on tax-exempts rises above 50 percent of the yield on taxables.

Given the supply of outstanding State and local securities, the relative yield will be determined by the amount of tax-exempt securities which investors in all tax brackets desire to hold. Suppose the actual supply of tax-exempt securities to be relatively small, and all of them

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\* Prepared in the Treasury Department, Office of the Secretary, with minor editing by committee staff.

<sup>1</sup> Any two securities will in fact have different yields depending on all the differences between the securities, risk, liquidity, etc. In the following discussion comparisons are made between securities that are alike in all features except taxability. Assuming competitive capital markets this is a reasonable device for isolating the value of the exemption feature.

to be profitably bought by persons in the highest tax bracket. The yield on tax exempts would tend toward 30 percent of the yield on taxables. However, as the supply of tax exempts increased, the demand of buyers in the lower income tax brackets would have to be tapped. If buyers in the lowest tax brackets are brought in, the yield will rise to 80 percent of the yield on taxables. In this instance, they are the marginal buyers, that is, those whose income after tax is the same whether they buy tax-exempt or taxable securities. Since this is an undifferentiated market, all buyers of tax-exempt securities receive the same yields as the marginal buyers.

This is a somewhat simplified statement of investor choices. One could postulate that an investor in the 70-percent bracket chooses between a taxable bond, a tax-exempt bond, and an equity—half of the yield of which would be realized as capital gain. Because of the attraction of the capital gain feature of the equity, the investor might demand a better return on a tax-exempt bond than 1.5 percent even though comparable taxable bonds are yielding 5 percent. The point of the foregoing argument still applies, that is, the lower the tax rate applicable to an individual the higher must be the yield on tax-exempt bonds for these to be an attractive investment.

As the volume of State and local government borrowing rises, State and local securities must appeal to lenders with medium or low marginal tax rates, that is, the yield on State and local securities must move closer to the yield on comparable taxable securities. This means that the lender whose marginal tax rate is higher than the rate applicable to the marginal buyer will find that his tax saving is greater than the amount of interest foregone. The standard assumption of free capital markets and rational investors implies that there would be a negligible number of investors who would buy tax-exempt securities when the tax saving to them is less than the loss of interest. In the aggregate, therefore, it can be expected that the interest cost saving to State and local government borrowers due to tax exemption is less than the revenue loss which results from the exemption feature. Sections B and C provide some evidence on the yield differential and interest cost savings to State and local governments under the assumption that these governments continue to borrow from the same borrowers.

It is possible that in the absence of exemption the patterns of savings flows in capital markets would be very different than they are now, and this in turn could mean a variety of further changes which are not easily predictable. Section E offers some comment on this matter of possible shifts of existing savings flows.

## B. EVIDENCE ON THE YIELD DIFFERENTIAL IN RECENT YEARS

Given the total stock of all securities, the differential in yield between taxable and tax-exempt securities is influenced by the supply of tax-exempt securities; the tax rates applicable to each bracket; the wealth position of individuals in each income bracket and investment preferences among various investors. Over the decades the differential has widened or narrowed in response to pressures from these forces.<sup>2</sup>

<sup>2</sup> Identifying the precise effect of the variables which have influenced the differential in the past presents many difficulties. In particular, statistical evidence on the two latter variables is quite meager.

The following table, which compares the yield on high-grade corporate and municipal bonds over the period 1928-66, shows the behavior of the differential during this period and provides some evidence on the trend of the differential in recent years.<sup>3</sup>

TABLE 1.—Comparative yields on high-grade, long-term municipal and corporate bonds,<sup>1</sup> selected years, 1928-66

Year	Average yield		Differential	Differential as a percent of corporate yield
	Municipal bonds	Corporate bonds		
1928.....	3.92	4.50	0.58	13
1933.....	2.25	2.85	.60	21
1946.....	1.10	2.53	1.43	57
1956.....	2.51	3.36	.85	25
1963.....	3.06	4.26	1.20	28
1964.....	3.09	4.40	1.31	30
1965.....	3.16	4.49	1.33	30
1966 (May).....	3.48	4.88	1.40	29

<sup>1</sup> Moody's Investors Service, Aaa municipal bonds and Aaa industrial bonds.

In the 1920's an upsurge in the amount of outstanding State and local securities, combined with a sharp decrease in the rates of Federal income tax, caused the relative differential (the absolute differential as a percent of corporate yields) to narrow considerably. Since many investors expected the decline in Federal tax rates to continue, the value of the exemption during this period was discounted at a high figure. In the 1930's the relative differential widened and during World War II widened further, so that by 1946 the yield on high-grade tax-exempt securities was less than one-half that of taxable bonds of comparable quality. Behind this widening of the relative differential lay the marked increase in the level and progression of Federal income taxes and a severe decline in the volume of tax-exempt securities as State and local governments postponed borrowing to finance capital outlays during the war. In the postwar years the relative differential has diminished.

### C. THE INTEREST COST SAVING TO STATE AND LOCAL GOVERNMENTS

Conceptually, measurement of the interest cost saving to State and local government borrowers produced by the tax exemption requires an estimate of the expected rise in interest costs of State and local governments that would occur if the exemption were not available. The first problem in estimating the interest saving in any year due to the exemption feature is that of securing a judgment as to what the yield on State and local government securities would be in the absence of the exemption.

*The magnitude of the yield differential.*—Recently some instructive research has been undertaken to determine the value of tax exemption in terms of reduced borrowing cost to State and local government units; that is, the interest rate differential between tax-exempt and taxable securities of comparable quality. The research project, sponsored by the Brookings Institution<sup>4</sup> has made a major contribution

<sup>3</sup> These yields should not be taken as a measure of the true differential between tax-exempt and taxable securities, i.e., the amount by which the yield on tax exempts would be expected to increase in the absence of the exemption, but are shown in order to indicate the trend of the differential whatever its absolute size.

<sup>4</sup> David J. Ott and Allan H. Meltzer, "Federal Tax Treatment of State and Local Securities" (Washington: 1963).

to the factual and analytical framework in securing a measurement of the extent to which state and local government borrowers benefit from the exemption feature. The analysis presented here is based on the techniques employed in this study.<sup>5</sup>

A current range for the yield differential on long-term securities was computed on the assumption that the relevant comparable rate on taxable securities, grade by grade and maturity by maturity, lay somewhere between the yields on publicly and privately placed issues. The difference between new issue municipal yield and public corporate new issue yields was taken as the minimum differential; the maximum was set at the differential between private corporate placements and new issue yields on municipals of comparable quality.<sup>6</sup>

Application of the Ott-Meltzer technique to date for 1966 suggests a current estimate of the range of the yield differential as 1.33 to 1.88.<sup>7</sup>

Measuring the interest saving to State and local governments in any year due to the exemption feature poses the problem that the interest payments on State and local securities in a given year consist of payments contracted in all previous periods in which debt currently outstanding was issued. Estimation of the reduced borrowing costs on all outstanding securities would involve going far back into the history of such offerings, comparing market yields for fully tax-exempt obligations. Recently investigators have avoided the problem of dating outstanding securities by developing an estimate of the "first year" interest cost savings for any year. This approach was adopted and refined in the recent study by Professors Ott and Meltzer. The interest cost saving due to exemption was estimated by seeking an incre-

<sup>5</sup> The authors marshaled some quantitative evidence bearing on the level of yields on State and local securities without the exemption by examining the yield patterns on Canadian municipal and Provincial securities which are subjected to a Canadian Federal income tax, and also through examination of yields on domestic issues of railroad equipment trust obligations and religious institution bonds, which in the former instance are similar in form to State and local government securities (i.e., issued serially) and in the latter instance are comparable to small, unrated local government issues.

Because the yield series which would prevail in the absence of the exemption would be based to a large extent on qualitative evidence and judgments made in the capital market, the views of capital market experts on the absence-of-exemption yields on municipals were surveyed. Two conclusions were reached on the basis of this survey. First, while former investigations of the differential have compared the average long-term new issue yields on *public offerings* of corporate bonds with the average long term yields on municipals of the same credit category, the relevant yield on taxable securities should be viewed as some sort of weighted average of new issue yields on *public offerings* and *private placement* of corporate bonds. (In recent years private placements of corporate bond issues have accounted for almost 50 percent of total corporate issues.) Second, in the absence of the exemption it cannot be assumed that offering yields on all maturities would rise by the same absolute (basis points) amount as the estimated rise in offering yields on long-term issues. Some allowance should be made, therefore, for a change in the term structure of yields on municipals in estimating the differential.

Ott and Meltzer concluded that the yield differential for the tax-exemption feature of State and local government bonds was in the range of 1.19 to 2.02 percentage points, based on data for 1960.

<sup>6</sup> The range was calculated on the basis of available data for private placements and new corporate issues. The private placement yield series was based on compilations by the Life Insurance Association of America. For data on new issue yields of public offerings of corporate bonds the FHA series was chosen. The municipal yield series was based on the Investment Bankers Association series on new issue yields on State and local government securities. These series served to provide a general range for the differential between current municipal and the relevant corporate yields. The "3d" quality yields on private placements and the approximately comparable "A" public corporate issue yields were compared with the IBA median yields on "A" 20-year general obligation municipals.

It should be noted that a refined estimate of the range of the differential might allow for the fact that in the absence of the exemption the yields on shorter maturities of municipals would probably rise more than long-term yields. This change in the term structure of yields on municipals can be viewed as a "flattening" of the present yield curve. In the absence of the exemption the municipal yield curve may become less steep than at present and more closely resemble the term structure on corporate bonds.

<sup>7</sup> The Ott-Meltzer work was the subject of a conference of experts at the Brookings Institution which was summarized in Ott and Meltzer *op. cit.* p. 113 footnotes. In the discussion a consensus judgment of the conferees was sought and a figure of 1.5 percentage points appeared to be the midpoint of the range of judgments expressed.



mental figure, that is, the increase in the interest cost that would have occurred on the gross issues of a single year if the issues had been sold at the alternative (absence-of-exemption) yields. The revenue consequences of tax exemption are stated in terms of this incremental figure.

This technique is applied to determine the increase in interest costs that would have occurred on gross issues of State and local government securities issued in 1965 if the issues had been sold at the yields which would have prevailed in the absence of the exemption. On the basis of the yields which would have prevailed in the absence of the exemption. On the basis of the yields prevailing at the time of sale, aggregate total interest payments over the life of the debt issued during the year are estimated at \$5 billion. If net interest cost for each issue were increased by a minimum of 133 and a maximum of 186 basis points, the aggregate interest payments by State and local governments over the life of the debt would have risen by an estimated range of 37.8 to 52.8 percent or \$1.9 billion in the case of the minimum estimated rise in interest costs and \$2.6 billion in the case of the maximum estimated rise in interests costs.<sup>8</sup>

#### D. THE ADDED FEDERAL TAX YIELD IN RELATION TO ADDITIONAL INTEREST PAYMENTS

The revenue consequences of tax exemption to the Federal Treasury Department and dependent upon the distribution of holdings of State and local securities among various investor groups and the average marginal tax rates applicable to the interest receipts of the holders. Table 2 shows the estimated distribution of holdings of State and local government obligations in 1965 by value of total obligations and the percentage held by each investor group.

TABLE 2.—Ownership of State and local government securities, 1965

(In billions of dollars)

Investor group	Amount held	Percentage distribution
Individuals.....	\$35.0	35.8
Nonprofit corporations <sup>1</sup> .....	5.3	5.4
State and local funds.....	36.6	37.4
Commercial banks.....	0.4	.4
Mutual savings banks.....	4.7	4.8
Life insurance companies.....	10.9	11.1
Nonlife insurance companies.....	1.8	1.8
Pension funds.....	3.1	3.2
Other.....		
Total.....	97.8	100.0

<sup>1</sup> Included in pension funds.

In order to determine the potential revenue yield, the approximate average marginal tax rate for each investor group on the basis of present income tax law was estimated and a weighted average marginal

<sup>8</sup> More crudely, the interest saving from tax exemption for State and local bonds in 1965 could be estimated as between 37.8 percent and 52.8 percent of the interest paid on all State and local securities in that year or \$1.14 to \$1.60 billion. The inaccuracy in this estimate is that some of the bonds on which interest was being paid in 1965 were issued in past years. Depending on market conditions, the value of tax exemption was somewhat different in each year. The differential has not changed greatly, however, as a percentage of the current rate after 1946 so this crude calculation of a single year's interest saving is reasonably satisfactory.

tax rate was computed. The aggregate average marginal tax rate, based on the present distribution of State and local government bond interest receipts, is estimated to be 42 percent. This result suggests that over the life of the debt issued in 1965 the increase in Federal revenues would have been \$2.9 billion if the relevant differential were 133 basis points and interest payments were to rise by \$1.9 billion. The additional revenue would have been \$3.2 billion if the relevant differential were 186 basis points and the increase in interest payments were \$2.6 billion. Over the life of State and local bonds issued in 1965, the excess of Federal revenue loss over interest saving to State and local governments is therefore estimated to be between \$0.6 and \$1.0 billion.<sup>9</sup>

#### E. THE MARKET FOR STATE AND LOCAL GOVERNMENT SECURITIES IN THE ABSENCE OF THE EXEMPTION

The revenue consequences resulting from the taxation of interest payments on State and local government securities suggested above were developed on the assumption that the distribution of holdings of these obligations would remain unchanged in the absence of the exemption.<sup>10</sup> However, if the exemption feature were unavailable, it would not be appropriate to assume a completely unaltered distribution of holdings among investor groups. This change in holdings among investors will affect the aggregate average marginal tax rate applicable to the interest income.

The factors which would effectuate shifting and determine the subsequent revenue effect are complex. The extent of shifting and the change in the prospective revenue yield would depend, for example, on yields on municipals in the absence of exemption—both short- and long-term; the changes which would occur in yields on equities and other fixed-interest bearing assets if the exemption on municipals were unavailable; the extent to which former purchasers of tax-exempt securities were able to secure alternative income tax shelters and whether the exemption were to be made unavailable only on new issues; finally, what might be called institutional practices would govern to some extent purchases of State and local securities.

In their study, Professors Ott and Meltzer gave explicit recognition to the distribution problem. On the assumption that the exemption feature would be unavailable on new issues of State and local government obligations, an effort was made to determine changes in purchases by the various investor groups. While magnitudes of the shifts in purchases of State and local securities are subject to alternative judgments, the judgments as to the direction of the shifts postulated in the study appear quite reasonable.

The most striking portfolio changes are postulated to occur in the cases of individuals subject to tax in the higher income tax brackets and life insurance companies. Under present income tax treatment of State and local interest payments, the former investor group is the largest purchaser of municipals while the latter purchases only a

<sup>9</sup> These estimates of benefits and costs of tax exemption over the life of 1 year's issues were estimated following the Ott-Meltzer technique but using 1965 data.

<sup>10</sup> An implicit assumption was also that total security issues as well as the volume of State and local bond issues remained the same.

small percentage of total issues. In the absence of the exemption, individuals in the higher income tax brackets may be expected to forgo substantial purchases of municipals and shift into other investment outlets including equities. However, a decline in purchases of municipals by individuals may be checked if individuals below the higher tax brackets were attracted as yields on municipals rise in the absence of the exemption. Moreover, the decline in purchases by individuals shifting initially into equities or new ventures may be a short-run phenomenon which would be checked as the debt-equity ratio of individual portfolios is readjusted.

Life insurance companies might increase substantially purchases of long-term municipals in the face of rising yields. This view is supported by the fact that this investor group is an important buyer of low-rated, high yield, State and local government issues. Nonlife insurance companies would probably move in the opposite direction. Purchases of municipals by this group would fall and the shift would be largely into preferred stock.

The second largest municipal investor group, under present tax treatment of interest income, commercial banks, are substantial purchasers of short-term serials. This group may be expected to shift out of municipals to some extent, but the magnitude of the shift should not be great since commercial banks purchase short-term municipals on the basis of liquidity as well as after-tax yield.<sup>11</sup>

In the absence of the exemption and given the rise in municipal bond yields, nonprofit corporations and pension funds can be expected to develop an interest in State and local obligations since high yields coupled with safety are important factors in determining the portfolio composition of these investor groups. In addition to these non-taxable investor groups, State and local trust funds would be expected to increase their participation in the municipals market as yields on these securities rise.

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<sup>11</sup> Another factor which suggests that the absence of the exemption feature will not greatly diminish commercial bank purchases of municipals is that commercial banks to some extent are obliged to hold municipals as collateral for public funds. Public relations with localities would also encourage continuing purchases of municipals. Finally, the underwriting activity of commercial banks is limited to State and local government (general obligation) securities.

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PART IV. SOURCES OF LOAN FUNDS

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## CHAPTER 21

### Commercial Banks\*

#### INTRODUCTION

The distinguishing characteristic of commercial banks, in comparison with other financial institutions, is their issuance of demand deposit accounts, transferable by check, which are used throughout the Nation as money, or means of payment. Most commercial banks also issue time deposits, usually evidenced by book accounts or by certificates of deposit. Some banks also have demand certificates of deposit.

In the 19th century what we now call commercial banks were traditionally known as banks of deposit and discount (some of them were also banks of issue because they issued circulating notes used as pocket currency). The description of them as banks of discount reflected the predominant character of their assets—as bills of exchange and promissory notes of businessmen and other individuals, with the emphasis on obligations arising out of relatively short-term commercial transactions (those not exceeding a few months). In recent decades commercial banks have made a broad variety of loans, including commercial loans of varying maturities, loans to individuals for consumer purposes, loans secured by real estate (residential, agricultural, and commercial and industrial), and loans of other types. They also hold a relatively large volume of investment securities, consisting mostly of obligations of governments (Federal, State, local, and sometimes foreign) and of other public or quasi-public bodies. The loans and investments of commercial banks represent a much broader coverage of the various types of loans and securities outstanding in the economy (except corporate bonds and stocks) than those of other types of financial institutions.

It may also be noted that the class of institutions commonly referred to as “commercial banks,” for which statistics are regularly collected and published by the Federal banking agencies, includes stock savings banks, though they may have no demand deposit accounts, and trust companies not regularly engaged in deposit banking which handle fiduciary business other than that incidental to real estate title or mortgage activities. However, such savings banks and “nondeposit trust companies” are comparatively few in number relative to the commercial banks engaged in the types of operations described above.

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\*The Introduction and Part A were prepared by the Division of Research and Statistics of the Federal Deposit Insurance Corporation; the remainder of the chapter was prepared by Wray O. Candilis, Department of Economics and Research, American Bankers Association. Minor editing of entire chapter by committee staff.

## SIZE AND STRUCTURE OF THE INDUSTRY

The number of commercial banks, and the amount of their assets, as of the call report dates at or near the end of the year, are given in table 2 for the years indicated. The commercial banks are classified in table 2, for the same years and call dates, according to participation in Federal deposit insurance and Federal Reserve membership. On December 31, 1964, commercial banks operated 14,771 branches, an increase of 1,119 over the corresponding date of the preceding year. Table 3 shows a distribution of insured commercial banks on December 31, 1964, by amount of deposits.

TABLE 1.—*Number and assets of commercial banks, 1950, 1955, 1960, and 1964*

	Call date	Number	Assets (thousands)
1950.....	Dec. 30	14, 164	\$169, 855, 778
1955.....	Dec. 31	13, 756	211, 830, 899
1960.....	--- do ---	13, 484	258, 358, 952
1964.....	--- do ---	13, 775	348, 433, 496

Source: Annual reports of the Federal Deposit Insurance Corporation.

TABLE 2.—*Number and assets of commercial banks, 1950, 1955, 1960, and 1964, classified by selected criteria*

Criteria	Number		Assets (thousands)	
	Insured	Noninsured	Insured	Noninsured
Participation in deposit insurance:				
1950.....	13, 446	718	\$166, 791, 755	\$3, 064, 023
1955.....	13, 237	519	209, 144, 779	2, 868, 120
1960.....	13, 126	358	256, 322, 819	2, 036, 133
1964.....	13, 493	282	345, 130, 205	3, 303, 291
	Members	Nonmembers	Members	Nonmembers
Federal Reserve membership:				
1950.....	6, 870	7, 294	\$144, 641, 543	\$25, 214, 235
1955.....	6, 540	7, 216	179, 387, 715	32, 443, 164
1960.....	6, 172	7, 132	216, 555, 670	41, 803, 282
1964.....	6, 224	7, 269	289, 128, 895	56, 001, 310

Source: Annual reports of the Federal Deposit Insurance Corporation, annual reports of the Comptroller of the Currency, member bank call reports, and FDIC tabulations.

TABLE 3.—*Distribution of commercial banks, Dec. 31, 1964, by amount of deposits*

Deposit size	Insured commercial banks, December 31, 1964	
	Number	Deposits (millions)
Total.....	13, 492	\$306, 230
Banks with deposits of—		
Under \$1,000,000.....	730	530
\$1,000,000 to \$5,000,000.....	6, 460	17, 679
\$5,000,000 to \$25,000,000.....	5, 018	52, 951
\$25,000,000 to \$100,000,000.....	923	42, 634
\$100,000,000 to \$500,000,000.....	283	59, 327
Over \$500,000,000.....	79	133, 108

Source: Tabulations by Federal Deposit Insurance Corporation.

## A. SUPPLY OF CAPITAL FUNDS

The commercial banking system is looked to increasingly as a source of funds for financing State and local public works. Empirical information on the extent of financing directly by the acquisition by banks of obligations of private, nonprofit organizations for hospitals, schools, nursing and retirement homes, community centers, and other local public facilities is not available. Much of this is in the form of various classes of loans or warrants not separately categorized in bank recordkeeping and reporting. This kind of direct financing is important, if not in aggregate terms, then certainly in particularly circumstances where the more formal types of flotations and securities marketing are less appropriate.

There is somewhat more information available on the activities of commercial banks as buyers and sellers of State and local obligations used to finance local public works, but even here the data leave much to be desired. Also, banks, in their various fiduciary capacities and as investment counselors, probably exert considerable influence in the market for State and local securities but empirical data are fragmentary.

Commercial banks are much more important, however, as investors of their own resources in State and local securities, than as dealers, fiduciaries, or investment counselors. The holdings of State and local obligations by commercial banks since the end of World War II have greatly increased, not only in absolute terms, but also as a proportion of total State and local debt outstanding. Table 4 indicates this expansion. From holdings of \$4.1 billion in 1946, commercial bank holdings steadily increased to \$36.6 billion by 1965. As a percentage of total issues outstanding, the proportion increased during the period from 26.1 to 37.4 percent. Note, however, that most of this latter increase occurred in very recent years, when there has been a heavy growth of time deposits.

TABLE 4.—Holdings of interest-bearing State and local obligations commercial banks, 1964-65

[Dollars in billions]

Year (June 30)	State and local obligations held by commercial banks	State and local obligations outstanding	Bank holdings of State and local obligations as a percentage of State and local obligations outstanding
1946.....	\$4.1	\$15.7	26.1
1947.....	5.0	16.6	30.1
1948.....	5.6	18.4	30.4
1949.....	6.0	20.5	29.3
1950.....	7.4	23.8	31.1
1951.....	8.6	26.7	32.2
1952.....	9.9	29.2	33.9
1953.....	10.6	32.3	32.8
1954.....	12.0	37.4	32.1
1955.....	12.8	42.8	29.9
1956.....	13.0	47.6	27.3
1957.....	13.4	52.1	25.7
1958.....	15.8	56.8	27.8
1959.....	17.0	62.0	27.4
1960.....	16.8	66.4	25.3
1961.....	18.8	71.7	26.2
1962.....	23.2	80.1	29.0
1963.....	27.9	85.9	32.5
1964.....	31.5	91.3	34.5
1965.....	36.6	97.8	37.4

Source: U.S. Treasury and Federal Deposit Insurance Corporation.

The holdings of State and local obligations by banks of differing size groupings, in relation to bank assets, are shown in table 5. This tabulation is based upon examination reports of approximately 6,000 State chartered banks that are not members of the Federal Reserve System. For all these banks, the ratio of holdings of State and local obligations to total assets is 9.3.

TABLE 5.—*Relationships of holdings of State and local obligations to assets of insured nonmember commercial banks, analyzed by selected size of bank groupings, 1964*<sup>1</sup>

[Dollars in millions]

Size of banks (total assets)	Number of banks	Holdings of State and local obligations	Total assets	Holdings of State and local obligations as a percent of total assets
Total.....	6,268	\$4,009	\$43,253	9.3
Less than \$1,000,000.....	422	11	314	3.5
\$1 to \$2,000,000.....	1,403	90	2,104	4.3
\$2 to \$5,000,000.....	2,342	558	7,677	7.2
\$5 to \$10,000,000.....	1,204	848	8,425	10.0
Over \$10,000,000.....	897	2,502	24,733	10.1

<sup>1</sup> Based on tabulations from examination reports of 6,268 banks examined by the Federal Deposit Insurance Corporation in 1964.

#### 1. MATURITY DISTRIBUTION OF INVESTMENT IN STATE AND LOCAL OBLIGATIONS BY COMMERCIAL BANKS

A primary restraint pertaining to the management of assets that is inherent in the character of commercial banking relates to liquidity requirements. These requirements differ among institutions and at different points in time. But, in any case, they are determined by the need to satisfy any short range demands of claimants as they are presented. The maturity distribution of the investment account in State and local obligations can have important bearing on the liquidity position of any given institution.

There is no continuous series of data showing the maturity distribution of State and local obligations held by commercial banks. The whole banking system was surveyed in 1947 and again in 1956. Maturity data reported by bank examiners of some 6,000 State chartered banks not members of the Federal Reserve System have been tabulated for the years 1961-64. Summaries of these surveys are brought together in table 6. Noteworthy is the fact that there appears to have been a lengthening of maturities since 1961. The holdings in the 1- to 5-year maturity range decreased from 39.6 percent of all holdings in 1961 to 33.8 percent in 1964; in the 10- to 20-year range, the percentage increased from 11.5 percent to 18.5 percent.



TABLE 6.—Percentage maturity distribution of State and local obligations held by insured nonmember commercial banks, 1961–64, and all insured commercial banks, 1947 and 1956

Maturity	1964 <sup>1</sup>	1963 <sup>1</sup>	1962 <sup>1</sup>	1961 <sup>1</sup>	1956	1947
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Within 1 year.....	13.1	14.0	14.3	14.8	15.2	16.8
1 to 5 years.....	33.8	35.5	37.9	39.6	34.9	29.4
5 to 10 years.....	31.3	30.9	31.8	31.8	30.0	26.3
10 to 20 years.....	18.5	16.8	13.4	11.5	19.9	27.5
Over 20 years.....	3.3	2.8	2.6	2.3		

<sup>1</sup> Based on tabulations from bank examination reports of banks examined by the Federal Deposit Insurance Corporation.

Table 7 presents the maturity distribution of investment grade State and local obligations held in 1964 by some 6,000 State chartered banks not members of the Federal Reserve System, classified by size of bank groupings.

TABLE 7.—Maturity distribution of investment grade, State and local obligations held by insured nonmember commercial banks examined in 1964, analyzed by selected size of bank groupings

Size of banks (total assets)	Number of banks	State and local obligation holdings <sup>1</sup> (millions)	Maturity distribution as percent of total					
			Total	Under 1 year	1 to 5 years	5 to 10 years	10 to 20 years	Over 20 years
Total.....	6,268	\$3,981	100.0	13.1	33.8	31.3	18.5	3.3
Less than \$1,000,000.....	422	11	100.0	16.6	42.5	30.7	9.7	.5
\$1,000,000 to \$2,000,000.....	1,403	88	100.0	16.6	40.6	30.2	12.1	.5
\$2,000,000 to \$5,000,000.....	2,342	553	100.0	14.2	38.9	32.7	13.4	.8
\$5,000,000 to \$10,000,000.....	1,204	843	100.0	12.1	37.2	34.6	15.2	.9
Over \$10,000,000.....	897	2,486	100.0	13.1	31.2	29.9	21.0	4.8

<sup>1</sup> Totals shown in this column exclude speculative and defaulted holdings and therefore differ from total holdings shown in other tables.

Source: Based on tabulations from Federal Deposit Insurance Corporation examination reports.

## 2. THE QUALITY OF COMMERCIAL BANK INVESTMENTS IN STATE AND LOCAL OBLIGATIONS

Commercial banks, particularly smaller ones involved in the financing of local developmental projects, invest rather heavily in unrated issues, which are not well-known outside local environs and which might be of either high or of low quality. Some banks invest rather substantially in grade 4, or marginal, issues. Nevertheless, on the basis of available evidence, which is generally acknowledged to be less complete than might be desirable, the commercial banking industry does usually insist upon very high standards of quality in its investment portfolio.

Quality classifications of holdings of State and local obligations by State chartered banks not members of the Federal Reserve System that were examined by the Federal Deposit Insurance Corporation from 1960 to 1964 are shown in table 8. These data indicate that over 55 percent of the holdings are of very high quality. Speculative holdings and issues in default are relatively insignificant, and the percentage of these found in bank portfolios has declined since 1960.

TABLE 8.—*Quality classification of holdings of State and local obligations by insured nonmember commercial banks examined, 1960-64*

Year	Number of banks	State and local obligation holdings (millions)	Percentage of holdings—				
			Total	Grades 1 to 3	Grade 4	Unrated	Speculative and in default
1960.....	6,757	\$2,881	100.0	55.8	11.2	31.7	1.3
1961.....	6,391	2,912	100.0	55.6	12.1	31.5	.8
1962.....	6,324	3,158	100.0	55.3	13.5	30.3	.9
1963.....	6,150	3,466	100.0	54.6	15.4	29.2	.8
1964.....	6,268	4,009	100.0	55.9	15.3	28.1	.7

Source: Based on tabulation from Federal Deposit Insurance Corporation examination reports.

Table 9 relates the quality of the investments in State and local obligations in 1964 shown in table 8 to the size of banks. Smaller banks of less than \$2 million of assets had less than one-fourth of their holdings of State and local obligations in issues of grades 1-3. Banks of over \$10 million had 65 percent of their holdings in these higher grade securities, although these banks also had a slightly higher percentage of investments in grade 4 securities. Smaller banks showed a substantially higher proportionate investment in unrated securities than did the larger banks. Unrated issues, which usually are small and of varying quality, tend to have a limited market, often served by the smaller banks. On the other hand, the larger portfolios can usually be administered more efficiently and profitably if invested in large, well-known flotations.

TABLE 9.—*Quality classifications of holdings of State and municipal obligations by insured nonmember commercial banks examined in 1964, analyzed by selected size of bank groupings*<sup>1</sup>

Size of bank (total assets)	Number of banks	State and local obligation holdings (millions)	Percent of holdings				
			Total	Grades 1 to 3	Grade 4	Unrated	Speculative and in default
Total.....	6,268	\$4,009	100.0	55.9	15.3	28.1	0.7
Less than \$1,000,000.....	422	11	100.0	24.2	10.5	63.8	1.5
\$1,000,000 to \$2,000,000.....	1,403	89	100.0	24.7	12.4	61.8	1.1
\$2,000,000 to \$5,000,000.....	2,342	559	100.0	33.9	14.3	50.8	.9
\$5,000,000 to \$10,000,000.....	1,204	848	100.0	46.0	16.7	36.7	.6
Over \$10,000,000.....	897	2,502	100.0	65.5	15.1	18.8	.6

<sup>1</sup> The 1st 4 rating classifications are considered investment grade by Federal bank supervisory authorities, although grade 4 is generally considered to be marginal. Unrated issues are usually not well known, and speculative and defaulted issues are unsuitable for bank portfolios.

Source: Based on tabulations from Federal Deposit Insurance Corporation examination reports.

### 3. TYPE OF SECURITIES AND USE OF PROCEEDS OF STATE AND LOCAL DEBT HELD BY COMMERCIAL BANKS

There are no current data available either on the type of State and local obligations held by commercial banks or the use of proceeds by governmental authorities. The last general bank survey in 1956 showed 79.3 percent of total investments in State and local debt in general obligation issues, 14.5 percent in revenue bonds, and 6.2 percent in short-term notes and warrants. In recent years, however,

there has been an increase in revenue bond financing by State and local governments. During the period, 1961-65, total long-term issues totaled some \$65.2 billion, of which about 25 percent were of the revenue type.<sup>1</sup> Short-term issues during the same period amounted to almost 30 percent of total flotations. As to purpose, the major use of proceeds of State and local debt continues to be for education, highway construction, and local utilities.<sup>2</sup> There is little reason to suppose that bank portfolios in recent years have not shared in these general patterns of State and local financing.

## B. PORTFOLIO CONSIDERATIONS

### 1. GENERAL CONSIDERATIONS

Probably the most important element making municipal securities attractive to investment officers of banks is the tax exemption feature. Institutions that are subject to high Federal income taxation display a considerable interest in tax exempts, with the greatest demand coming from commercial banks which are subject to the standard corporate income taxes. Tax exemption, however, is a form of Federal Government subsidy, only part of which accrues to the investors. How this subsidy is shared between investors and borrowers depends on the market forces existing at a particular time. If the supply of tax exempts is high relative to demand then the cost of borrowing would be high also and investors would benefit more from the subsidy than otherwise. If the supply is small relative to demand, borrowing costs would be down and it would be the borrowers that would benefit more than otherwise.

Another advantage that makes municipals attractive is the security of such investments. With the exception of Treasury and Federal agency bonds, municipals generally involve the least risk and enjoy the lowest default rate of any form of investment. In addition, banks are constantly under pressure to assist local government units either in order to secure the deposits of such units or for the sake of the broader customer-banker relationships.

The difficulties encountered by banks in the purchase and sale of municipals may be summarized as follows:

First, investing in municipals presupposes a high degree of specialized knowledge not always available to all banks.

Second, marketability in the secondary market is considered less than adequate to insure easy liquidation of most municipals.

A third difficulty is perhaps the most serious factor impeding bank investment in municipals. Commercial banks during business cycle swings have a particularly difficult task in adapting their investment policy vis-a-vis State and local bonds to their major function as a private lender.

On the supply side, the postwar period has demonstrated that non-Federal governmental units have tended to be relatively heavy borrowers of funds in periods of business ebullience. While there is some interest elasticity in the supply of municipal bonds, the decrease or postponement of new issues is scarcely sufficient to free adequate funds

<sup>1</sup> Moody's Municipal and Government Manual, 1966, p. a21.

<sup>2</sup> *Ibid.*, p. a19.

for business and consumer demand which also tends to be high at such times. With scarcity of bank reserves generally characterizing the advanced stage of cyclical recovery periods, banks tend to liquidate some of their municipal investments or at least withdraw from the market for new issues. In these periods, banks often take capital losses on their holdings of State and local bonds as well as Treasury securities in order to accommodate business and consumer borrowers. Similarly, in the early stages of a recession, State and local bond volume may be small at the very time commercial banks could use additional outlets for their funds, considering the lesser demand by private borrowers. Thus, despite the obvious investment attractions in the form of tax-exempt income and on the whole, excellent quality, municipal bonds as bank investments do not always harmonize with the responsibility of banks to accommodate first the needs of private customers.

The Department of Economics and Research of the American Bankers Association sent a questionnaire to the chief executive officers of over 300 banks across the country soliciting their views on subjects relating to municipal securities. The questionnaire, which was pre-tested, included questions pertaining to the ratios of municipal security holdings to total loans and investments, the method used in determining the volume of municipal holdings, the relationship between yields of tax-exempts and yields of taxable loans and investments, the importance of the tax exemption feature, and the means by which municipal securities can be made more attractive to investors. Apart from the questionnaire, to which there was an above average response, the Department of Economics and Research conducted comprehensive interviews with academicians, researchers, and bankers well versed in the municipal bond field, whose views and advice considerably enhanced the value of the survey results.

## 2. PROPORTION OF LOANS AND INVESTMENTS

According to the survey, the proportion of municipal security holdings to the holdings of all loans and investments is determined by commercial banks mainly as a result of an analysis of liquidity requirements, loan requirements, and legal needs for governments to secure government accounts. Following the satisfaction of these needs, the funds that remain are invested in bonds. Depending on the yield spreads between governments, municipals, and Federal agencies and corporations, on the relationship of a particular bank to the local government unit or home State, and on the tax position of the bank, funds are allocated accordingly. An eye is also kept on the ratio of municipals to total deposits, or some other similar ratio, and on the ratios carried by banks of comparable stature.

## 3. COMPETITION WITH OTHER LOANS OR INVESTMENTS

Municipal securities are not competitive with mortgage loans according to the response of surveyed bankers as a whole. In the event, for instance, of the removal of tax exemption and the subsequent lower demand for municipals, money that no longer would go into municipals would mainly be channeled into other investments; e.g., Treasury securities, rather than into loans. Of course this would depend on how loaned up the bank happened to be at the time and on the spread

between the yields of municipals and the average pre-tax return on loans and investments. According to table 10 the shift of funds that would occur if tax exemption were eliminated would depend also on the size of the bank.

For example the shift to Treasury securities arising from removal of tax exemption on municipals for instance ranges from 38.6 percent of the surveyed banks with assets of \$10 to \$99 million, to 64.3 percent for banks with assets of less than \$10 million. A similar wide range exists in the case of a shift to consumer and business loans. From table 10 it is apparent that there would be a greater shift to business loans if tax exemption is removed in communities whose municipals are rated A or lower, presumably because business loans are better substitutes for high-yielding low-rated municipals than mortgages or Treasuries. Probably for the same reason there would be a slightly greater shift to mortgages and Treasuries in communities whose municipals belong to the top two ratings.

TABLE 10.—If tax exemption were eliminated, where would you shift the funds to?

[In percent]

	Bank's assets			
	\$100,000,000 and over	\$10,000,000 to \$99,000,000	Under \$10,000,000	Total
Consumer loans.....	16.0	38.6	14.3	19.8
Business loans.....	16.0	6.8	7.1	13.4
Mortgages.....	11.6	16.0	10.7	12.3
Treasury securities.....	44.8	38.6	64.3	45.8
Other.....	11.6	-----	3.6	8.7

RATINGS (MUNICIPALS OF RESPONDENT'S COMMUNITY)

	Aaa	Aa	A	Baa	Ba and lower <sup>1</sup>	Total
Consumer loans.....	22.2	16.5	22.0	17.2	-----	19.8
Business loans.....	7.4	8.8	16.5	27.6	-----	13.4
Mortgages.....	11.1	16.5	9.9	6.9	-----	12.3
Treasury securities.....	44.5	48.3	45.0	38.0	-----	45.8
Other.....	14.8	9.9	6.6	10.3	-----	8.7

<sup>1</sup> Too few cases.

4. YIELD SPREAD CONSIDERATIONS

On the average banks consider municipal securities attractive so long as their yield is no more than about 200 basis points lower than yields of taxable loans and investments. The survey also indicated that neither the size of the bank nor the rating of the municipals of the community where the bank is located produces a substantially different figure (table 11). Of course the actual spread between, say, high-grade municipal bonds and AAA corporate bonds at mid-March 1966 was about 1.25 percent, with some analysts maintaining that not all of the difference should be attributed to the tax exemption feature since this feature is not the only reason investors find State and municipal bonds attractive. In the A.B.A. survey, it was revealed that commercial banks attribute a higher premium to the tax exemption feature than the present market yield differential would suggest.

TABLE 11.—*At how much less yield expressed in basis points would you be willing to buy tax exemptions as compared to your average pretax return on taxable loans and investments?*

## BANK'S ASSETS

\$100,000,000 and over	\$10,000,000 to \$99,000,000	Under \$10,000,000	Total
211	224	207	213

## RATINGS

[Municipals of respondents' community]

Aaa	Aa	A	Baa	Ba and lower	Total
210	206	220	212	Too few cases	213

## 5. EFFECTS OF CHANGES IN TAX-EXEMPT STATUS

Just over 300 banks that took part in the survey thought that the average yield of their community's municipals would go up between 200 and 225 basis points if tax exemption were removed, a differential which is about 1 percentage point higher than the actual difference between municipal and corporate bond yields.

If tax exemption were removed and replaced by a Federal guarantee the average yield of municipals would go up, according to respondents, by about 1.50 percentage points, 50 basis points less than if no Federal guarantee were involved and about 25 basis points more than most U.S. Government agency obligations. In the event that a Federal guarantee were added to the tax-exemption feature the yield would be expected to decline by about 25 basis points from the current yield, according to the ABA survey.

A most interesting situation presents itself when the size of banks is taken into consideration in the analysis of the yield differentials in the respondent's community. The spread between the current yield and the yield if tax exemption were removed is reported to be as high as 2.24 percentage points for banks with \$100 million assets, 2.16 percentage points for banks with \$10-\$99 million assets, and 1.79 percentage points for under \$10 million asset banks. It is apparent that the tax-exemption feature is thought to be worth more to the larger banks than those in the smaller asset group. This is what might be expected since the normal tax rates of 22 percent is levied on taxable income of \$25,000 or less while the surtax rate of 26 percent (or a combined rate of 48 percent) is imposed on taxable income over \$25,000. Tax exemption therefore becomes more valuable when a bank nears the \$25,000 taxable income level. Being more likely to exceed that level, and being more sophisticated in subjects of taxation, banks with assets of \$10 million and over are more sensitive to the tax-exemption feature of municipals and attach a higher premium to it.

Similar differences between large and small banks were reported in the spreads between current yield and the yield that would result if tax exemption were removed and replaced by a Federal guarantee. In the event that Federal guarantee were added to the tax-exemption feature, the current yield would drop by 28 basis points, according to banks in the \$100 million and over asset group, 18 basis points for banks with assets of \$10 to \$99 million, and 9 basis points for the small banks. The

smallest banks believed the effect of tax-exemption removal would be less and the gain from Federal guarantees would also be less, compared with the large banks' assessment of these changes.

TABLE 12

	Bank's assets			
	\$100,000,000 and over	\$10,000,000 to \$99,000,000	Under \$10,000,000	Total
What would happen to differential spread (in percentage points) between current yield of your community's municipals and the yield if—				
Tax exemption is removed.....	+2.24	+2.16	+1.80	+2.19
Tax exemption is removed and replaced by a Federal guarantee.....	+1.66	+1.76	+1.23	+1.64
Tax exemption retained and Federal guarantee added.....	-.28	-.18	-.09	-.25

An analysis of yield differentials based on the rating of the municipals issued by the respondent's community also warrant comment. The spread between the current yield and the yield if tax exemption were removed is 2.26 percentage points for Aaa municipals, 2.15 and 2.14 percentage points for Aa and A municipals respectively, and 2.38 percentage points for Baa. Thus, it may be concluded that lower rated municipals apparently would lose most from removal of the tax exemption feature.

## 6. EFFECTS OF FEDERAL GUARANTEES

On the subject of Federal guarantee, if the current yield of the municipals issued by the respondent's community is compared with either the yield if tax exemption were removed and replaced by a Federal guarantee, or the yield if Federal guarantee were added to tax exemption, we find that a guarantee by the Federal Government is considered more important to communities with lower rated issues; i.e., the yields would rise less (if no tax exemption) or decline more (if added to tax exemption). Specifically, if tax exemption were removed and replaced by a Federal guarantee, respondents thought there would be an increase in yield of 1.89 percentage points for Aaa issues but only a 1.44 percentage point increase for Baa issues. If a Federal guarantee were added to the tax exemption feature the yield would go down only 11 basis points for Aaa municipals but would decrease 42 basis points for Baa issues.

TABLE 13

	Ratings (municipals of respondent's community)					
	Aaa	Aa	A	Baa	Ba and lower <sup>1</sup>	Total
What would happen to differential spread (in percentage points) between current yield of your community's municipals and the yield if—						
Tax exemption is removed.....	+2.26	+2.15	+2.14	+2.38	-----	+2.19
Tax exemption is removed and replaced by a Federal guarantee.....	+1.89	+1.73	+1.57	+1.44	(1)	+1.64
Tax exemption retained and Federal guarantee added.....	-0.11	-0.22	-0.28	-0.42	-----	-0.25

<sup>1</sup> Too few cases.

## 7. MAKING MUNICIPALS MORE ATTRACTIVE

A further question was asked in the survey regarding the alternatives, if any, that might increase the attractiveness of municipal securities if tax exemption were removed. Although it was made quite clear by the respondents that nothing could adequately replace the attractiveness of tax exemption, and that if the exemption feature were removed there would be an increase in yields, numerous suggestions were put forward that (according to the respondents) would partially offset removal of tax exemption. A Federal guarantee of municipals was by far the most often quoted suggestion with a State guarantee of the issues of political subdivisions following close behind.

Among the ideas put forward was one suggesting that the Federal Reserve System liberalize its regulations in order to permit banks to use municipal bonds to secure advances without the payment of a penalty discount rate. Other suggestions related to improvement in the municipal secondary market and the setting up of sinking funds. Some other recommendations that were mentioned include—

(a) Codification of the laws governing the issuance of municipal securities so that it will be easier to determine both the legality and the financial status of such issues.

(b) Uniform municipal accounting and financing reporting in order to have better standards for comparing various issues.

(c) Elimination of advance refundings which have been largely motivated by opportunities arising from the ability to obtain higher yields by short-term investment of the proceeds from the sale of such securities.

(d) Financing of the neediest State and local governments by some type of specialized Federal program.

(e) Use of municipal securities held by commercial banks to meet part of their reserve requirements.

## C. PRESENT AND FUTURE MUNICIPAL BOND HOLDINGS

The past 20 years show clear evidence of a continuous municipal bond buildup by commercial banks, with such holdings rising from \$3.5 billion in 1944 to \$33.6 billion in 1964, an increase of nearly 10 times. Viewed as a percentage of total loans and investments, State and local government securities of commercial banks have gone from 3.3 percent in 1944 to 12.1 percent in 1964. Table 14 shows the growth of both loans and investments and State and local government securities of commercial banks during the 1944-64 period. Table 15 indicates that over the 1944-64 period, total loans and investments increased by \$172.6 billion, or 162.8 percent, while municipal securities climbed \$30.1 billion, or 860 percent. During the 1944-54 period a \$50.8 billion increase for total loans and investments, or 47.9 percent, was accompanied by a \$9.1 billion, or 260 percent increase, for municipals. Taking the 1954-64 period only we see that loans and investments increased by \$121.8 billion, or 77.7 percent, while municipals rose \$21 billion, or 166.6 percent.



TABLE 14.—*Municipal securities of all commercial banks*

Year (Dec. 31)	Loans and investments	Municipals	Municipals as a proportion of loans and investments	Percentage of total municipal debt outstanding
	<i>Billions</i>	<i>Billions</i>	<i>Percent</i>	<i>Percent</i>
1964.....	\$278.6	\$33.6	12.1	36.8
1963.....	255.2	29.8	11.7	34.7
1962.....	236.7	24.8	10.5	32.0
1961.....	216.1	20.4	9.4	28.5
1960.....	200.1	17.6	8.8	26.5
1959.....	190.9	17.0	8.9	27.5
1958.....	186.3	16.6	8.9	29.3
1957.....	171.1	14.0	8.2	26.9
1956.....	166.1	13.0	7.8	27.3
1955.....	161.7	12.8	7.9	30.0
1954.....	156.8	12.6	8.0	33.7
1953.....	146.4	10.9	7.4	33.8
1952.....	142.4	10.2	7.2	34.9
1951.....	133.3	9.2	6.9	34.5
1950.....	127.4	8.2	6.4	34.5
1949.....	120.9	6.6	5.5	32.2
1948.....	115.0	5.7	5.0	31.0
1947.....	117.0	5.3	4.5	31.9
1946.....	114.7	4.4	3.8	28.0
1945.....	124.7	4.0	3.2	24.4
1944.....	106.0	3.5	3.3	20.2

Source: Federal Deposit Insurance Corporation.

TABLE 15.—*Increases of municipal securities of all commercial banks*

[Dollar amounts in billions]

Item	Increase, 1944-64			Increase, 1944-54			Increase, 1954-64			Increase, 1960-64		
	Amount	Percent	Annual rate	Amount	Percent	Annual rate	Amount	Percent	Annual rate	Amount	Percent	Annual rate
Loans and investments.....	\$172.6	162.8	4.95	\$50.8	47.9	3.99	\$121.8	77.7	5.91	\$78.5	39.2	8.63
State and local government securities.....	30.1	860.0	11.97	9.1	260.0	13.66	21.0	166.6	10.30	16.0	90.9	17.55

As indicated earlier, purchases of municipal bonds by commercial banks are mainly geared to conditions in the money market and to monetary policies that subsequently evolve. When money was easy and monetary policy was expansive, commercial banks were heavy buyers of tax exempts; this happened in 1947, 1950, 1954, 1958 and the 1961-64 period. On the contrary when money was tight and monetary policy became firm municipal bond buying by banks turned sluggish, as was the case during 1952-53, 1955-56, and 1959-60.

Changes since 1962 in the maximum rates payable on time and savings deposits under provisions of regulation Q and the consequent increases in bank funds also played a part in influencing the buying policies of banks' municipal bond departments. As a result of an inflow of high cost deposits, commercial banks were under pressure to examine all avenues of asset acquisition, and investment in tax-exempt bonds offered one possible way of preserving or improving after tax income in spite of higher costs. Specifically the annual rate of increase of municipal bond holdings averaged 17.55 percent during 1960-64 as against 11.97 percent during the 1944-64 period.

All indications are that over the next 10 years, commercial banks will continue to be a major force in the municipal market. On the basis

of their performance over the past two decades, table 16 presents two sets of extrapolations. On the assumption that the basic economic indicators over the 1966-75 decade will show a slightly less buoyancy than that experienced between 1961-65, but will outperform the post-war 1944-54 period, it would be reasonable to expect that by 1975 the total loans and investments of commercial banks will range between \$475 and \$525 billion while their State and local government bond holdings will reach \$100 to \$115 billion. These projections are shown on chart A.

CHART A. MUNICIPALS AS A PROMOTION OF LOANS AND INVESTMENTS

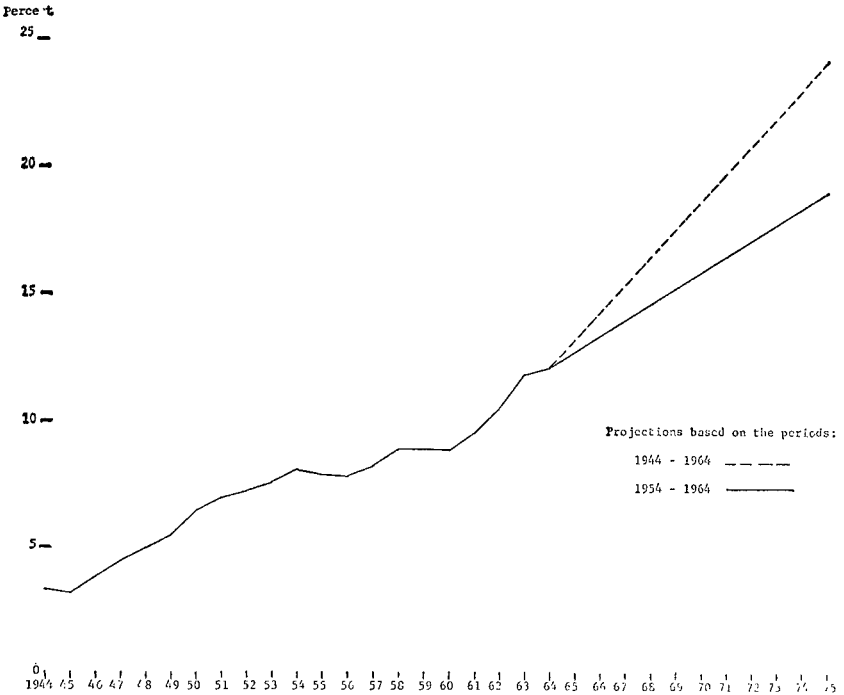


TABLE 16.—Projections of loans and investments and State and local securities of commercial banks, 1975

On the basis of performance in—	Loans and investments	State and local securities	Municipals as a proportion of loans and investments
1944-64	Billions \$475	Billions \$115	Percent 24.2
1954-64	Billions 525	Billions 100	Percent 19.0

## CHAPTER 22

### Mutual Savings Banks\*

#### INTRODUCTION: BASIC INDUSTRY FUNCTIONS AND CHARACTERISTICS

Mutual savings banks are the oldest specialized thrift institutions in the Nation. Throughout their 150-year history, savings banks have been devoted to the performance of two basic economic functions: (1) stimulating and safeguarding the savings of individuals and (2) channeling these savings into productive investments.

Currently, there are 506 mutual savings banks in 18 of the 50 States, in the Commonwealth of Puerto Rico and in the Virgin Islands. The three leading savings bank States are New York, Massachusetts, and Connecticut, where nearly three-fourths of all mutual savings banks, with over four-fifths of the industry's resources, are located (table 1).

TABLE 1.—Number and assets of mutual savings banks, by State, May 31, 1966, and Dec. 31, 1964

[In millions of dollars]

State	Number of banks		Amounts of assets	
	May 31, 1966	Dec. 31, 1964	May 31, 1966	Dec. 31, 1964
Massachusetts.....	179	179	9,714	8,859
New York.....	126	125	34,277	31,456
Connecticut.....	70	71	4,179	3,841
Maine.....	32	32	716	640
New Hampshire.....	32	32	982	882
New Jersey.....	21	21	2,304	2,049
Pennsylvania.....	7	7	3,522	3,211
Rhode Island.....	7	7	906	811
Maryland.....	6	6	810	744
Vermont.....	6	6	223	195
Indiana.....	4	4	86	74
Washington.....	4	4	695	616
Wisconsin.....	3	4	34	33
Delaware.....	2	2	272	236
Alaska.....	2	1	23	13
Minnesota.....	1	1	511	476
Ohio.....	1	2	3	32
Oregon.....	1	1	73	69
Virgin Islands.....	1	1	1	( <sup>1</sup> )
Puerto Rico.....	1	-----	1	-----
<b>Total.....</b>	<b>506</b>	<b>506</b>	<b>59,330</b>	<b>54,238</b>

<sup>1</sup> Less than \$500,000.

Source: National Association of Mutual Savings Banks.

The confinement of mutual savings banks largely to the New England and Middle Atlantic States of the country is principally due

\*Prepared by Research Department, National Association of Mutual Savings Banks, with minor editing by committee staff. A preliminary draft was reviewed by the association's committee on corporate securities and portfolio management. Tabulations on the composition of savings bank municipal bond holdings were provided by the Federal Deposit Insurance Corporation.

to legal restrictions which prevent geographic extension of the industry. In contrast with all other deposit-type institutions, which may be either State or federally chartered, mutual savings banks are exclusively State-chartered institutions. Within their present geographic limitations, savings banks have achieved expansion through the establishment of branches and currently operate approximately 1,200 individual offices.

Savings deposits, held primarily by individual savers in more than 22 million accounts, are the basic source of funds for mutual savings banks (table 2). In addition to regular savings accounts, which represent 99 percent of the industry's total deposit liabilities, savings banks offer school savings, vacation and Christmas clubs, payroll and other special-purpose accounts. Deposits in nearly all savings banks are insured, in most cases by the Federal Deposit Insurance Corporation, and in the case of Massachusetts savings banks, by the Mutual Savings Central Fund, Inc. Savings banks in three States—Massachusetts, New York, and Connecticut—also offer low-cost savings bank life insurance.

As mutual institutions, savings banks have no capital stock or stockholders. Protection for depositors is provided by the reserves accumulated gradually through the retention of a portion of savings bank earnings. Except for amounts added to these protective reserves, net earnings of savings banks are distributed entirely as interest to depositors.

TABLE 2.—*Assets and liabilities of mutual savings banks—Selected yearend dates*

[Dollar amounts in millions]

End of year	Loans		Securities			Cash	Other assets	Total assets, total liabilities, and general reserve accounts	Deposits	Other liabilities	General reserve accounts
	Mortgage	Other	U.S. Gov- ernment	State and local gov- ernment	Corporate and other						
1945.....	\$4,202	\$62	\$10,650	\$84	\$1,116	\$606	\$243	\$16,962	\$15,332	\$48	\$1,582
1950.....	8,039	127	10,877	96	2,280	792	255	22,446	20,025	137	2,283
1955.....	17,279	211	8,463	646	3,364	966	416	31,346	28,182	310	2,854
1960.....	26,702	416	6,243	672	5,076	874	589	40,571	36,343	678	3,550
1964.....	40,328	739	5,791	391	5,099	1,004	886	54,238	48,849	989	4,400
1965.....	44,433	862	5,485	320	5,170	1,017	944	58,232	52,443	1,124	4,665
Percentage distribution											
1945.....	24.8	0.4	62.8	0.5	6.6	3.6	1.4	100.0	90.4	0.3	9.3
1950.....	35.8	.6	48.5	.4	10.1	3.5	1.1	100.0	89.2	.6	10.2
1955.....	55.1	.7	27.0	2.1	10.7	3.1	1.3	100.0	89.9	1.0	9.1
1960.....	65.8	1.0	15.4	1.7	12.5	2.2	1.5	100.0	89.6	1.7	8.8
1964.....	74.4	1.4	10.7	.7	9.4	1.9	1.6	100.0	90.1	1.8	8.1
1965.....	76.3	1.5	9.4	.5	8.9	1.7	1.6	100.0	90.1	1.9	8.0

Source: National Association of Mutual Savings Banks.

In productively investing funds entrusted to them by depositors, saving banks have sought to earn maximum returns for savers consistent with safety and liquidity. Mortgage loans have been by far the prime investment outlet for savings banks during the postwar period, reflecting, in part, their basic mortgage orientation, burgeoning postwar housing demands, and the attractiveness of mortgage yields relative to those available on alternative investment outlets. Also of profound importance have been institutional and legal changes, notably the widespread adoption of amortized mortgage loans, introduction of Federal mortgage insurance and guarantee programs and State legislation enacted in the early 1950's permitting savings banks to acquire mortgage loans on properties located beyond their own State boundaries.

Of the total \$58 billion of assets held by savings banks at the end of 1965, mortgages represented 76 percent, U.S. Government securities, 9 percent, and corporate and State and local government securities combined, 9 percent (table 2). The \$44 billion of mortgage loans held by savings banks included approximately \$13 billion of loans on properties located in 32 nonsavings bank States.

#### MUNICIPAL BOND ROLE IN SAVINGS BANK INVESTMENTS<sup>1</sup>

Largely reflecting massive postwar mortgage lending by savings banks, State and local government securities currently occupy a secondary position in the industry's asset structure.<sup>2</sup> The \$320 million of municipal obligations held by the Nation's savings banks at the end of 1965 represented about one-half of 1 percent of total industry assets. This contrasts with the much larger role of municipal securities in savings bank investments during an earlier stage in the industry's history. At the turn of the 20th century, State and local government issues represented one-fourth, and as late as 1930 nearly one-tenth, of aggregate savings bank resources.

The earlier prominence of State and local obligations in savings bank portfolios reflected, in part, legal restrictions on alternative private investments in major savings bank States. Gradual liberalization of these restrictions over the years has permitted savings bank participation in a broader range of investment outlets. Reduction in the industry's municipal bond role, particularly since 1930, is also due to shifts in investment flows to capital market sectors where expansion in credit demands was greater. Thus, during the depression decade and the World War II period, savings bank investment activity was confined largely to acquisitions of U.S. Government securities. And during the postwar period—when the increase in the total mortgage debt substantially exceeded the combined growth of Federal, State, and local government, and corporate long-term securities—savings bank investment flows have been dominated by mortgage lending to a degree unprecedented in the industry's earlier history. Indeed, since the end of World War II, savings banks have channeled 96 percent of their investible funds into mortgage markets.

<sup>1</sup> The role of savings banks in financing community facilities operated by private, non-profit organizations is discussed on p. 16.

<sup>2</sup> For ease of presentation, the terms "municipal bonds" and "State and local government bonds" are used interchangeably in this study.

Another basic factor, of course, was the transformation of the municipal bond market stemming from the introduction of Federal income taxation in 1913 and the exemption of municipal bond interest from taxation. Mutual savings banks, exempt from Federal income taxation prior to 1951, derived no benefit from the tax features of State and local government obligations. Municipal securities, in effect, were bid away by upper bracket taxpayers and other investors who were increasingly attracted by their after-tax yields.

While State and local government securities have not been a major investment outlet for the industry during the postwar period, savings banks have contributed significantly to the expansion and improvement of community facilities in the areas where they are located. In addition to their municipal bond investments, savings banks have been leading participants in community-oriented mortgage lending programs. Although confined to only 18 States, they rank either first or second, nationwide, among institutional holders of FHA-insured mortgages under the following major programs: (1) regular owner-occupied housing; (2) rental housing; (3) urban home redevelopment and relocation; (4) cooperative housing; and (5) servicemen's housing. Savings banks also have channeled a substantial volume of mortgage funds into such "special-purpose" FHA programs as housing for the elderly and nursing homes and into various types of community facilities operated by private, nonprofit organizations, including churches and synagogues, hospitals, schools, and fraternal buildings (see page 16). Thus, within the investment area savings banks emphasize most strongly, they have provided financing for a variety of facilities essential to sound community growth.

#### POSTWAR MUNICIPAL BOND FLOWS

During the period since the end of World War II, savings banks have channeled a varying volume of funds into State and local government security markets (table 3). Annual net additions to holdings expanded irregularly during the late 1940's accompanying the postwar revival of municipal borrowing, and accelerated after legislation enacted in 1951 extended Federal corporate income taxation to mutual savings banks. In the mid and late 1950's, however, net acquisitions of municipal obligations slackened, and beginning in 1959, gave way to modest, almost continuous net reductions in holdings. Over the 1946-65 period as a whole, savings banks channeled \$236 million into State and local government security markets. In comparison, the industry's mortgage holdings increased by \$40.2 billion, corporate security portfolios rose by \$4.1 billion, while U.S. Government obligations declined by \$5.2 billion.

TABLE 3.—*Net flow of investment funds from mutual savings banks, 1946-65*

[In millions of dollars]

Year	Total	Mortgage loans	Securities			Other assets	Cash
			U. S. Government	State and local governments	Corporate and other		
1946	1,700	249	1,095	-26	199	-27	209
1947	1,062	405	239	-1	324	30	66
1948	758	727	-475	16	471	22	-3
1949	1,021	896	-64	20	165	9	-5
1950	943	1,560	-567	3	-15	43	-80
1951	1,058	1,708	-1,000	44	230	35	91
1952	1,797	1,485	-384	195	435	32	35
1953	1,868	1,561	-252	92	386	46	65
1954	2,151	2,052	-436	181	237	73	43
1955	1,996	2,435	-291	38	-184	59	-60
1956	2,035	2,280	-481	30	184	69	-46
1957	1,835	1,412	-400	9	796	47	-30
1958	2,569	2,067	-313	44	627	112	31
1959	1,481	1,870	-337	-7	-63	107	-69
1960	1,626	1,953	-628	-49	232	94	44
1961	2,257	2,199	-83	5	-37	109	63
1962	3,292	3,155	-53	-150	137	183	20
1963	3,582	3,951	-244	-87	-103	109	-44
1964	4,535	4,322	-72	-49	25	219	91
1965	3,994	4,105	-306	-72	72	181	14

NOTE.—Data represent net changes in asset classification shown.

Source: National Association of Mutual Savings Banks.

## TYPES OF MUNICIPAL OBLIGATIONS

While data are not available on the composition of savings bank acquisitions according to type of obligation, some observers have suggested that savings banks favored revenue bonds during the early postwar period and were a significant factor in this sector of the municipal bond market.<sup>3</sup> Partial support for this conclusion—at least as far as large institutions are concerned—is provided by inquiries at a number of savings banks whose combined municipal bond portfolios represent a significant share of total industry holdings.

The relative prominence of revenue obligations in the municipal bond holdings of some large savings banks is probably due to the higher yields characteristic of revenue bonds, as compared with general obligations, during much of the postwar period. Furthermore, unlike general obligations, which are supported by the taxing power of the State or local government, revenue bonds depend for their security on the income derived from highways, bridges, or other public facilities operated by the issuing authorities. Appraisal of revenue obligations requires techniques of investment analysis broadly similar to those applicable to corporate obligations. Revenue obligations, therefore, may be particularly suitable for financial institutions having large corporate bond portfolios and full-time security investment specialists.

## PATTERN OF MUNICIPAL BOND HOLDINGS

Within their municipal bond portfolios, mutual savings banks have concentrated mainly on long-term issues, in keeping with their overall long-term investment orientation. A major share of their holdings

<sup>3</sup> Roland I. Robinson, "Postwar Market for State and Local Government Securities" (Princeton, N.J.: Princeton University Press, 1960), pp. 93-95, 208 and 209.



consists of issues that enjoy high quality ratings. Savings banks also hold unrated obligations, which are issued by communities with debt smaller than the minimum amount established for rating purposes by the various investment advisory services. With respect to the location of the borrower, savings banks have acquired bonds issued both by their own, as well as by other, States and communities.

These conclusions are based on data relating to over 300 mutual savings banks insured by the Federal Deposit Insurance Corporation, which account for close to nine-tenths of the total resources of all FDIC-insured savings banks and three-fourths of the aggregate resources of the entire savings bank industry. These data, which were compiled by FDIC, do not include the bulk of the savings banks in Massachusetts, whose combined portfolios of municipal obligations represent about 6 percent of the total holdings of the entire savings bank industry.<sup>4</sup>

*Maturity structure.*—The long-term nature of savings bank holdings of State and local government securities is clearly evident in table 4. Obligations maturing in more than 20 years represented about one-half of the "investment" municipals held by FDIC-insured savings banks in 1964 (see note to table 4). Bonds with maturities ranging from 10 to 20 years accounted for another three-tenths of total holdings. Long maturities were especially prominent, moreover, for banks holding relatively large dollar amounts of municipal securities.

TABLE 4.—Percentage composition of municipal bond holdings of FDIC-insured mutual savings banks, by maturity, and size of holdings, 1964

[Percent]

Maturity (years)	Total	Size of municipal bond holdings (thousand dollars)				
		Under 100	100 to 200	200 to 500	500 to 1,000	1,000 and over
Under 1.....	0.9	11.5	3.6	4.3	2.1	.5
1 to 5.....	5.8	21.5	22.2	17.3	11.2	4.5
5 to 10.....	11.8	20.8	31.3	16.2	15.5	11.0
10 to 20.....	30.1	41.0	30.4	26.0	35.5	29.8
20 and over.....	51.4	5.2	12.5	36.2	35.7	54.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
Number of banks.....	302	143	22	41	26	65

NOTE.—Data are based on the par value of holdings of "investment" municipal bonds, essentially bonds rated Aaa through Baa (Moody's) and high-quality unrated obligations. Figures are as of various dates in 1964.

Source: Federal Deposit Insurance Corporation.

*Quality ratings.*—About one-half of the municipal bonds held by FDIC-insured savings banks in 1964 were rated in the top three quality grades (Aaa, Aa and A according to Moody's classification). Bonds in other quality grades, together with unrated issues, represented the remainder. While savings banks generally favor quality investments, they have participated in individual cases in local issues that may not have a broad market. In view of the small size of their overall municipi-

<sup>4</sup> As noted earlier, all savings banks in Massachusetts are insured by Massachusetts Savings Central Fund, Inc. Eight savings banks in the State, representing about one-fifth of the resources of all Massachusetts savings banks, are insured by FDIC as well, and are included in the FDIC data cited above.

pal portfolios, acquisitions of such securities involves relatively little risk for the banks.

*Location of borrower.*—Savings banks holdings of municipal bonds are about evenly divided between local issues and issues of States other than those in which the banks are located. FDIC-insured savings banks held \$154 million of municipal bonds issued by their own States and political subdivisions at the end of 1965. Holdings of obligations of other States and political subdivisions were almost equally large, totaling \$153 million.

#### PORTFOLIO CONSIDERATIONS

In allocating investible funds among alternative outlets, savings banks have utilized their diversified investment powers flexibly, adjusting mortgage and security acquisitions in response to changing capital market demands and shifting yield relationships. While expanding their mortgage holdings steadily during the postwar period, savings banks at times have also increased their holdings of corporate and municipal securities, when bond investments were especially attractive and when savings inflows temporarily exceeded the supply of quality mortgage loans. A basic limitation on savings bank portfolio activity, of course, is the availability of investible funds, which, in turn, depends heavily on savings bank earning power and deposit interest rates and on the industry's competitive position in savings markets.

In a broad sense, therefore, all eligible investment outlets, including municipal bonds, compete for the supply of funds available to savings banks. In the postwar capital market setting, however, State and local government obligations clearly have not been closely and directly competitive with mortgages, as is amply demonstrated by the sharp contrast between the industry's large, steady mortgage acquisitions, and its modest, intermittent municipal bond purchases.

Further indication of the role of municipal obligations in savings bank investments is provided by table 5, which shows variations among the main savings bank States in the relative importance of municipal bonds in total assets. Relative to total assets, municipal securities are prominent in a number of States where savings banks have a proportionally higher investment in non-Federal securities (corporate bonds, corporate stocks, and State and local government obligations);<sup>5</sup> that is, in States where savings banks appear to have a greater orientation toward security investments generally. In some States, furthermore, investments in municipals are inversely associated with the relative size of holdings of corporate stocks. This suggests that for some banks tax-sheltered equity investments are alternatives to fully tax-exempt municipal bonds.

<sup>5</sup> U.S. Government obligations are excluded from this comparison, since, unlike corporate and municipal securities, they are held primarily for liquidity purposes.

TABLE 5.—*State and local government securities held by mutual savings banks, selected States, Dec. 31, 1965*

	State and local government securities		Non-Federal securities as percent of total assets	Corporate stock as percent of total assets
	Amount	Percent of total assets		
New York.....	\$158,000,000	0.5	8.1	1.9
Massachusetts.....	33,000,000	.3	5.7	3.4
Connecticut.....	11,000,000	.3	12.9	5.1
Pennsylvania.....	47,000,000	1.4	22.0	1.4
New Jersey.....	25,000,000	1.1	13.3	1.7
New Hampshire.....	6,000,000	.6	9.1	5.1
Rhode Island.....	2,000,000	.3	12.8	6.2
Maryland.....	11,000,000	1.4	11.7	(1)
Maine.....	8,000,000	1.2	14.7	4.5
Vermont.....	(1)	.1	2.0	.8
All other States.....	18,000,000	1.1	14.0	2.3
Total.....	320,000,000	.5	9.4	2.4

<sup>1</sup> Less than \$500,000 or 0.05 percent.

NOTE.—Non-Federal securities include corporate bonds, corporate stocks, and State and local government obligations.

Source: National Association of Mutual Savings Banks.

In keeping with their broad investment flexibility, savings banks generally have not followed fixed guidelines with respect to the proportion of assets invested in municipal bonds. Savings banks are mindful, of course, of the proportion of their resources invested in municipals, as is true of every other major type of asset. But this reflects primarily the basic concern of management that the overall composition of assets contribute, to the full extent possible, to realization of the basic investment of goals of safety, liquidity, and strong earning power. Ratios of municipal obligations to total assets or deposits, while hardly unimportant, do not play a role in management decisions comparable, for example, to the mortgage-asset ratio or the relationship of short-term Treasury obligations to anticipated liquidity needs.

The flexibility of savings bank portfolio activity is reflected in the changing position of State and local government securities in the industry's asset structure during the postwar period (table 6). From the low level of \$57 million and 0.29 percent of total assets at the end of 1947, savings bank municipal bond holdings expanded gradually throughout the late 1940's and early 1950's, both in dollar amounts and relative to total assets. As noted earlier, this rise accompanied the increase in State and local government spending and borrowing following the World War II period of restrictions on materials and manpower, and was accelerated by legislation enacted in 1951 which made savings banks subject to Federal income taxation. Savings banks simultaneously expanded their holdings of mortgage loans and corporate securities, shifting funds from war-swollen U.S. Government securities portfolios into all major non-Federal investment outlets.

TABLE 6.—*State and local government securities held by mutual savings banks, yearend*

Year	Amount	Percent of total assets	Percent of total securities
1945	\$84,000,000	0.50	0.71
1946	58,000,000	.31	.42
1947	57,000,000	.29	.42
1948	73,000,000	.36	.56
1949	93,000,000	.43	.67
1950	96,000,000	.43	.73
1951	140,000,000	.60	1.12
1952	335,000,000	1.33	2.64
1953	428,000,000	1.57	3.31
1954	608,000,000	2.07	4.71
1955	646,000,000	2.06	5.18
1956	676,000,000	2.02	5.54
1957	685,000,000	1.94	5.43
1958	729,000,000	1.93	5.62
1959	721,000,000	1.85	5.80
1960	672,000,000	1.66	5.60
1961	677,000,000	1.58	5.70
1962	527,000,000	1.14	4.46
1963	440,000,000	.89	3.87
1964	391,000,000	.72	3.47
1965	320,000,000	.55	2.91

Source: National Association of Mutual Savings Banks.

As a proportion of total assets, the industry's municipal bond holdings reached a peak of 2.07 percent at the end of 1954. Further expansion in the dollar amount of holdings kept the percentage of assets invested in municipal obligations near the 2-percent level until the end of 1958. Between 1958 and 1965, however, savings bank municipal security holdings declined significantly, from \$729 to \$320 million, and from 1.93 to 0.55 percent of total assets.

The first phase of the recent decline accompanied the sharp reduction in savings bank deposit gains—from \$2.3 billion in 1958 to only \$1.2 billion in the 1959 period of tight money and high interest rates—as the flow of individuals' saving shifted sharply from savings accounts to direct capital market investments, most notably the Treasury's "magic fives." Savings banks also reduced holdings of corporate bonds and stocks, as well as U.S. Government securities (see table 3), to supplement shrinking deposit inflows and provide funds for meeting mortgage commitments. Liquidation of municipals continued in 1960, as deposit growth showed only modest improvement, but with the stronger upturn in deposit gains in 1961, to an aggregate volume of \$1.9 billion, reduction of municipal security holdings was temporarily halted.

During the 1962-65 period, by contrast, the decline in the industry's holdings of State and local government security holdings steepened despite strong deposit gains, as savings bank investment activity was dominated by mortgage expansion to an even greater degree than in earlier postwar years. Savings bank earnings and deposit interest rates were under increasing pressure as a result of escalating commercial bank competition in savings markets. With mortgage yields continuing attractive relative to alternative investments, savings banks expanded their mortgage holdings by \$15.5 billion, 10 percent more than their total deposit growth, over the course of the 4-year period. At the same time, they reduced their holdings of all major types of debt securities—U.S. Government, corporate, and municipal—while continuing to expand corporate stock portfolios moderately.

Within debt security portfolios, moreover, municipal bond holdings showed the sharpest decline during the 1962-65 period—52 percent, compared with 11 percent for U.S. Government obligations and 10 percent for corporate bonds. The steeper decline in the industry's State and local government bond holdings stems largely from the diminished attractiveness of municipal bond yields relative to those on Treasury and corporate bonds. As shown in table 7, the yield advantage (before tax) of U.S. Government and corporate bonds over State and local government issues (Moody's Aaa) widened significantly during the 1960's. During most of the 1962-65 period, municipal bond yields were under strong downward pressure from accelerated purchases by commercial banks, which sought profitable investment outlets for their increased saving inflows.

TABLE 7.—Selected bond yield spreads, 1946-65

[Percent per annum]

Year	U.S. Government and municipal bonds	Corporate and municipal bonds	Year	U.S. Government and municipal bonds	Corporate and municipal bonds
1945	1.30	1.55	1956	0.57	0.85
1946	1.09	1.43	1957	.37	.79
1947	.80	1.16	1958	.51	.87
1948	.57	.95	1959	.72	1.03
1949	.66	1.01	1960	.75	1.15
1950	.76	1.06	1961	.63	1.08
1951	.96	1.25	1962	.92	1.30
1952	.88	1.16	1963	.94	1.20
1953	.63	.89	1964	1.06	1.37
1954	.51	.86	1965	1.05	1.57
1955	.66	.88			

NOTE.—Data refer to excess of U.S. Government and corporate bonds over yields on State and local government bonds, based on monthly average interest rate figures. Corporate and municipal bonds are for high-grade issues (Moody's Aaa).

## RELATIVE ATTRACTIVENESS OF MUNICIPAL BOND YIELDS

While shifting yield relationships have clearly influenced savings bank municipal bond activity, their effect has hardly been static, and at times has been offset by other basic factors including: changing mortgage lending opportunities, variations in deposit flows, and competitive forces in savings markets. The specific impact of tax provisions is itself complex. The period from 1951 to 1962 witnessed two major changes in the tax treatment of mutual savings banks, both of which were preceded by uncertainty regarding the nature of the impending changes, and were succeeded by periods of adaptation to the new tax rules. Moreover, tax legislation enacted in 1962 provided for alternative bad debt reserve provisions for mutual savings banks and savings and loan associations which have different implications for the relative attractiveness of fully taxable and tax-exempt securities.

From all this, it should be apparent that a meaningful answer to the question: "At what interest rate levels are municipal securities attractive to savings banks?" requires detailed assumptions regarding a wide variety of capital market forces and income tax considerations. Under postwar conditions, municipal bond yields clearly have not been highly attractive to savings banks. Assuming no radical departures from these conditions, municipal bond yields would have to rise substantially relative to other interest rates to attract a significant volume of savings bank acquisitions.

## PROPOSALS FOR INCREASING THE ATTRACTIVENESS OF MUNICIPAL OBLIGATIONS

Various proposals have been advanced to improve the attractiveness of State and local government obligations. Greater uniformity of accounting procedures and wider availability of pertinent information regarding the finances of governmental units would ease the task of making informed judgments regarding the credit standing of individual issues. This would be particularly important for the smaller community whose financial position is less well known to potential investors.

As discussed later in this paper, extension of a Federal guarantee to State and local government obligations—as proposed by some observers—is another possible means of improving the attractiveness of State and local government obligations. State underwriting of the obligations of political subdivisions would have a broadly similar effect.

A basic change in the financial position of States and municipalities, and hence in their ability to attract capital market funds, would be accomplished by adoption of proposed arrangements for Federal-State "tax sharing." Such arrangements have been proposed as a means of enabling State governments, in effect, to utilize efficient Federal tax collection machinery, while retaining broad discretion as to the uses of the revenue gained.

## EFFECT OF FEDERAL GUARANTEES AND REMOVAL OF TAX EXEMPTION

The primary effect of the extension of a Federal guarantee to State and local government securities presumably would be to reduce the risk of investment losses, particularly on lower-quality issues. Such a guarantee would also tend to impart greater uniformity and broader marketability to municipal obligations. At the same time, yields on municipal bonds would tend to decline relative to other investments.

Since lower quality issues would be affected most, a secondary result of a Federal guarantee would be to narrow differences in yields among different municipal issues. Absolute uniformity would not necessarily result, however. The precise nature of the guarantee would be an important factor in determining the relative effect on municipal obligations of different quality grades.

On the other hand, removal of the tax exemption feature would tend to increase interest rates on municipal obligations. If elimination of the tax exemption feature were coupled with a Federal guarantee, the effects on interest rates of the two changes would be offsetting to some degree. In the abstract, it might be expected that yields on the highest grade municipal obligations (maturities and other features being equal) would be broadly comparable to those on obligations of Federal agencies. However, large-scale shifts of securities among investor groups with different tax positions and quality requirements, might cause a departure from the expected yield relationships between municipal obligations and other investments.

## PROSPECTIVE MUNICIPAL BOND FLOWS

In projecting the industry's future municipal bond flows, a basic factor to consider is the dominant role of mortgage lending in savings

bank investment activity. As noted earlier, the industry's postwar emphasis on mortgage investments stems from a variety of factors including a fundamental mortgage orientation, strong housing demands, the relative attractiveness of mortgage yields, and basic institutional changes that have contributed to broadened savings bank participation in mortgage markets.

The forces underlying the postwar upsurge in savings bank mortgage lending are not likely to diminish in the future. While mortgage-asset ratios, in some instances, are approaching statutory or policy ceilings, there is still ample room for mortgage expansion by the industry as a whole. Recently enacted legislation permitting savings banks in New York to acquire conventional mortgages beyond their State boundaries, as well as expanding new Federal housing programs, will add impetus to strong growth of the industry's mortgage holdings.

So long as housing demands remain strong and mortgage yields relatively attractive, so long will savings banks invest heavily in mortgages.

Assuming, again, no radical changes in the overall environment, savings bank activity in State and local government security markets is likely to remain limited to a small proportion of the industry's resources. From time to time, savings banks will acquire municipal obligations when yields are especially attractive. The 1962 increase in savings bank taxation should, on balance, result in some increase in savings bank purchases of municipal bonds. And their purchases of local issues will contribute importantly to community improvements in individual instances. Over the next decade, however, it appears reasonable to assume that industry municipal bond flows will continue to average below \$100 million annually.

#### FINANCING PRIVATE, NONPROFIT COMMUNITY FACILITIES

Many types of facilities, essential to sound community growth are operated by private, nonprofit organizations and are financed outside the market for State and local government obligations. Mutual savings banks have participated actively in financing the construction and improvement of such facilities, particularly through their mortgage lending programs.

While no comprehensive, industrywide data are available on savings bank holdings of obligations of private, nonprofit organizations, an indication of the extent of their activities is provided by information on the industry's participation in financing specific types of projects. Financing of cooperative housing projects is one example.

At the end of 1965, the face amount of FHA mortgage loans on management-type cooperative housing held by savings banks totaled \$353 million, more than any other type of lender. Indeed, savings banks held over two-fifths of the total face amount of FHA loans on these cooperative housing projects. Nonprofit facilities are also financed under other "special purpose" FHA programs. As noted earlier, savings banks are leading participants in these programs.

Another measure of the industry's activity in financing nonprofit facilities is provided by data on the volume of new mortgage loans closed by New York savings banks on certain types of community

facilities located within the State.<sup>6</sup> During the 1950-63 period, New York savings banks supplied mortgage funds totaling \$85 million on 238 hospitals, \$68 million on 746 houses of worship, \$67 million on 203 schools and libraries, and \$14 million on 155 fraternal buildings. Close to 40 percent of the total \$234 million volume of loans made during the entire 14-year period were closed during 1960-63, indicating that savings bank community-oriented mortgage lending has been increasing. Fragmentary data for other States also indicate that savings banks have contributed significantly to the financing of local nonprofit community facilities. In the decade ahead, further growth may be expected in the volume of savings bank mortgage flows to nonprofit organizations as needs for essential community facilities continue to expand.

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<sup>6</sup>Data are from Savings Banks Association of New York State, "Savings Banks Fact Book," (1966), p. 44.



## CHAPTER 23

### Life Insurance Companies\*

#### INTRODUCTION

*Functions and structure of the life insurance business.*—The principal function of life insurance companies is to make available contracts providing protection against financial loss from death; many companies also offer contracts providing protection against the financial risk attendant upon old age or financial loss from certain other contingencies, such as illness and accident. Most life insurance contracts are sold on a level-premium plan of payment (the premium is the same each year) under which the premium in the early years exceeds the cost of insurance and in later years is less than the cost of insurance. Level-premium insurance provides a practical means for an individual to acquire insurance extending to the later years of life. Policies sold under this payment plan will normally generate in their early lifetime premium income in excess of claims and expenses. This excess must be invested in assets which together with their earnings and future premium payments will be sufficient to meet future benefit payments and expenses under the policies. This accumulation of assets reflects a second main function of life insurance companies, that of serving as a source of capital funds for investment.

The accumulated assets of all U.S. life insurance companies totaled about \$159 billion at the end of 1965. The growth of these assets over the postwar period is shown in the table below, with the data classified as to the assets held by mutual or by stock life insurance companies. Stock life insurance companies accounted for a growing share of total assets in this period, although their proportion of the total was still less than one-third by the end of 1965.

*Total assets of U.S. life insurance companies classified by mutual and stock companies*

End of year	Millions of dollars			Percent of total		
	Mutual	Stock	Total	Mutual	Stock	Total
1945.....	35,091	9,706	44,797	78	22	100
1950.....	49,551	14,469	64,020	77	23	100
1955.....	68,061	22,371	90,432	75	25	100
1960.....	87,533	32,043	119,576	73	27	100
1965.....	111,968	46,916	158,884	70	30	100

Source: Institute of Life Insurance.

\*Prepared by Elizabeth H. Bancala, economic research associate, of the economic research staff of the Life Insurance Association of America, based on responses of a sample group of life insurance companies to a questionnaire of the Joint Economic Committee (coded by committee staff), with minor editing by committee staff.

The increasing share of total assets held by stock companies was in part accounted for by the considerably greater growth in the number of these companies as compared with that of mutual companies, as shown by the following table. As a practical matter, newly formed companies almost invariably begin business as stock companies.

*Number of U.S. life insurance companies classified as to mutual or stock companies*

End of year	Mutual	Stock	Total
1945.....	99	374	473
1950.....	142	507	649
1955.....	165	942	1,107
1960.....	155	1,286	1,441
1965.....	152	1,474	1,626

Source: Institute of Life Insurance.

About 95 percent of the assets of life insurance companies are represented by investments, and the bulk (82 percent of assets at end of 1965) are held in bonds and mortgages of a wide variety of borrowers. Data on the acquisitions and holdings of various classifications of investments are regularly available from industry sources. Investments in State and local government obligations are regularly set out in these aggregative data, but investments in the obligations of private, nonprofit organizations are not identifiable but are included with miscellaneous securities or with mortgage loans. The amount of State and local government bonds held by all life insurance companies at the end of each year, 1946-65, and their proportion of total assets are provided in table 1. As may be seen, municipal bond holdings of the business increased both in absolute amount and as a proportion of assets through 1961. Thereafter, the amount of these bond holdings increased for an additional year but at a lower rate than total assets and then decreased for 3 consecutive years. The holdings of State and local government bonds are widely dispersed among life insurance companies and usually comprise a smaller proportion of assets of large companies than they do of smaller companies. Despite this dispersion, it was thought that sufficiently representative views of the business could be obtained through a survey of a limited number of life insurance companies, selected on the basis of their holding fairly sizable amounts of State and local government obligations. Accordingly, a questionnaire was sent by staff of the Joint Economic Committee in April 1966 to a selected group of companies. Usable and systematic replies were received from 18 companies. These companies accounted for about 48 percent of assets of all U.S. life insurance companies. A summary of responses of this sample group of life insurance companies is provided below.

TABLE 1.—*Acquisitions and holdings of State and local government bonds and holdings as percent of total assets, U.S. life insurance companies*

[Dollar amounts in millions]

Year	State and local government bonds		Total assets	Holdings as percent of assets
	Acquired in year	Held at yearend		
1946.....	( <sup>1</sup> )	\$614	\$48,191	1.3
1947.....	\$61	609	51,743	1.2
1948.....	322	872	55,512	1.6
1949.....	224	1,052	59,630	1.8
1950.....	217	1,152	64,020	1.8
1951.....	182	1,170	68,278	1.7
1952.....	175	1,153	73,375	1.6
1953.....	241	1,298	78,533	1.7
1954.....	749	1,846	84,486	2.2
1955.....	349	2,038	90,432	2.3
1956.....	377	2,273	96,011	2.4
1957.....	237	2,376	101,309	2.3
1958.....	409	2,681	107,580	2.5
1959.....	670	3,200	113,650	2.8
1960.....	466	3,588	119,576	3.0
1961.....	506	3,888	126,816	3.1
1962.....	486	4,026	133,291	3.0
1963.....	371	3,852	141,121	2.7
1964.....	365	3,774	149,470	2.5
1965.....	296	3,530	158,884	2.2

<sup>1</sup> Not available.

Source: Institute of Life Insurance and Life Insurance Association of America.

## A. SUPPLY OF CAPITAL FUNDS

The combined totals for 18 life insurance companies are provided in table A-1, which shows the acquisitions in each year 1946-65 of State and local government bonds and of obligations of private, nonprofit organizations. State and local government bonds are further classified as to general obligation bonds, and other bonds (special assessment or limited tax bonds).

## 1. MUNICIPAL SECURITY ACQUISITIONS

*a. Types of bonds*

The relative proportions of the three categories of municipal securities are provided in table A-2. These proportions, derived from the dollar figures in table A-1, are averages for the 18 sample life insurance companies. Proportions for individual companies varied considerably from these averages. For example, three of the companies made no acquisitions of general obligation bonds in any of the 20 years; nine others did so in fewer than 10 of the 20 years. Although there were a few companies that acquired general obligation bonds in all but 2 or 3 years, none of these 18 companies acquired general obligation bonds in each year. On the other hand, four companies acquired revenue bonds in each of the 20 years, and only three companies acquired revenue bonds in fewer than 10 of the 20 years.

TABLE A-1.—Acquisitions of State and local government bonds and of obligations of nonprofit organizations, annually, 1946-65, 18 life insurance companies

[In thousands of dollars]

Year	State and local government bonds				Obligations of nonprofit organization
	General obligation	Revenue	Other	Total	
1946.....	7,725	9,310	488	17,523	6,680
1947.....	6,975	18,752	1,144	26,872	23,940
1948.....	29,508	119,992	3,057	152,558	21,994
1949.....	16,338	102,329	612	119,279	28,899
1950.....	7,365	104,623	1,866	113,855	31,531
1951.....	3,344	104,711	879	108,934	37,860
1952.....	3,870	67,671	1,227	72,768	47,370
1953.....	12,376	64,425	515	77,316	38,831
1954.....	29,428	303,576	3,663	336,667	38,379
1955.....	4,438	158,227	873	163,538	55,105
1956.....	8,885	169,874	3,717	182,476	37,581
1957.....	7,473	59,957	2,008	69,438	48,377
1958.....	26,167	90,312	3,073	119,551	53,019
1959.....	48,751	254,642	1,808	305,210	56,242
1960.....	40,581	147,047	1,710	189,338	30,402
1961.....	43,864	131,615	363	175,842	39,961
1962.....	29,104	197,659	2,904	229,667	44,754
1963.....	14,048	84,918	3,863	102,829	64,172
1964.....	42,700	81,028	2,936	126,663	41,007
1965.....	28,402	42,872	4,876	76,150	128,852
Total, 1946-65.....	411,343	2,313,541	41,582	2,766,466	874,957

TABLE A-2.—General obligation, revenue and other bonds as percent of total State and local government bonds acquired, annually, 1946-65, 18 life insurance companies

Year	State and local government bonds			
	General obligation	Revenue	Other	Total
1946.....	44.1	53.1	2.8	100
1947.....	26.0	69.8	4.3	100
1948.....	19.3	78.7	2.0	100
1949.....	13.7	85.8	.5	100
1950.....	6.5	91.9	1.6	100
1951.....	3.1	96.1	.8	100
1952.....	5.3	93.0	1.7	100
1953.....	16.0	83.3	.7	100
1954.....	8.7	90.2	1.1	100
1955.....	2.7	96.7	.5	100
1956.....	4.9	93.1	2.0	100
1957.....	10.8	86.3	2.9	100
1958.....	21.9	75.5	2.6	100
1959.....	16.0	83.4	.6	100
1960.....	21.4	77.7	.9	100
1961.....	25.0	74.8	.2	100
1962.....	12.7	86.1	1.3	100
1963.....	13.7	82.6	3.8	100
1964.....	33.7	64.0	2.3	100
1965.....	37.3	56.3	6.4	100
Total, 1946-65.....	14.9	83.6	1.5	100

Special assessment or limited tax bonds were much less frequently acquired than general obligation or revenue bonds: only 1 company acquired such bonds in most of the years; among the other 17, 7 showed no acquisitions in most years, and 10 companies made no acquisitions of special assessment or limited tax bonds in any of the 20 years.

The reason usually given for the emphasis on revenue bonds in the acquisitions of most of the sample companies was the higher yields on revenues relative to general obligation bonds. Many of the revenue

bonds issued in this period were very large and, to assure their success, were offered at yields competitive with those of corporate borrowers. One company, however, which at times invested more in general obligation bonds than in revenues, indicated that in times of tight money or of large supplies of general obligation bonds, these yields approached those of revenue bonds and, in addition, many general obligation bonds have the desirable feature of being noncallable.

*b. Maturities*

Most of the companies indicated 20 to 40 years as the usual maturities purchased, although a few also purchased 10- to 20-year maturities or occasionally shorter. Reasons cited for purchasing longer maturities were similar and recurrent in company replies: the higher yield on longer term maturities; the long-term character of life insurance company liabilities, making long-term investments appropriate; a minimum need for current liquidity.

*c. Effect of ratings*

Most of the sample companies indicated that the availability and level of bond ratings either have not been an influence or have been only a minor influence in their municipal bond purchases. The companies place greater reliance on the analyses of their own staffs than on the ratings of outside agencies. In addition, many of the acquisitions were revenue bonds for facilities not yet in existence, and these ordinarily were not rated. One company noted it preferred unrated bonds because of the lessened competition. As noted by one or two companies, purchases are influenced to the extent that ratings tend to influence market prices and thus yields; a large proportion of the purchases by these companies were unrated bonds.

All but one of the sample companies stated that they purchase unrated municipals. The one exception indicated that "municipal securities in the four highest ratings are usually purchased." Municipals below fourth grade are much less frequently purchased than municipals unrated by the services.

With respect to quantification of municipals by quality rating or lack of rating, 10 companies replied in terms of acquisitions, 4 gave information in terms of current holdings, and 4 did not have data readily available. Of the 10 companies, 7 indicated that most of their municipals were not rated at the time of acquisition; another indicated that most of its acquisitions were comprised of third and fourth quality and unrated bonds; another company indicated that 60 percent of acquisitions were unrated and below fourth quality bonds; and a 10th company replied that 10-15 percent of acquisitions were unrated and below fourth quality bonds. For the four companies providing data on current portfolio holdings by quality grade, the portfolio distributions are summarized below.

*Distribution of municipal bond portfolio of individual companies by rating grade*

[In percent]

Rating grade	Company A	Company B	Company C	Company D
1st and 2d.....	10	5	4	16
3d and 4th.....	78	39	42	68
Unrated.....	7	50	49	15
Below 4th.....	5	6	5	1
Total.....	100	100	100	100

It may be noted that the assets of companies A and B were in excess of \$1 billion and those of companies C and D fell within the range of \$100 to \$600 million. Although the distributions for companies B and C appear remarkably similar, the companies differed widely in asset size—company B was roughly 10 times larger than company C—and in the proportion of assets held in municipals—the proportion for company C was more than 4 times that of B.

In summary, these 4 companies and the 10 providing rating-grade information on acquisitions have emphasized third and fourth quality and unrated bonds in their municipal investments; these 14 companies accounted for 45 percent of assets of all U.S. life insurance companies at the end of 1965.

*d. Use of Proceeds*

Replies varied as to the influence on purchases of the intended use of bond proceeds, as indicated by the following quotations of company replies. (The quotations are complete and are not excerpts from the replies to the question.) Although some replies noted preferences, most companies did not indicate prejudices as to the use of bond proceeds. A few, however, as indicated by the quotations, noted their objections to industrial revenue bonds, but one of the sample companies noted that it has been a substantial buyer of these bonds.

## 1. Use of bond proceeds has not been a determining factor.

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2. Bond purchases are influenced by the intended use of the proceeds only to the extent that the project being financed is economically sound and serves a useful public purpose.

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3. The intended uses of bond proceeds are not a major influence. Economic necessity, credit and yield considerations are major influences. There are no notable preferences or prejudices.

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4. Bond purchase is based upon adequate security and attractive price. An evaluation of the significance of the project to be financed is a basic element of the security. We have no notable municipal bond prejudices or preferences.

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5. We prefer bonds issued to construct essential services: water, sewer, and electric service, schools, etc. However, the security of the bond is considered more important than the purpose for which it is issued.

6. For the most part the intended use of the bond proceeds is not an influencing factor with our bond purchases. It is the community's responsibility to determine the necessity of a particular project. Our analysis is a judgment of the economics of the situation. In practice we have purchased more school, utility, and road bonds than those of other revenue-producing projects; but this result stems not from prejudice against the intended use of the proceeds but rather from an opinion that the willingness to repay or the necessity to use the facilities created is greater.

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7. We have not been particularly influenced by the intended use of the bond proceeds. We have been buyers of all different types of revenue projects, and we have also been a substantial buyer of industrial revenue bonds. I cannot think of any notable preferences or prejudices except to state that it is always easier to analyze a bond secured by the revenue from such services as water and sewer and electricity than it is to analyze a toll road or cigarette tax bond.

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8. The purpose of G. O. bonds is immaterial. Among revenue bonds, we have preferred those financing the most essential services—electricity, water, sewer. But this has not precluded us from buying other types (gas, parking, toll roads, bridges) when we felt yields were commensurate with additional risk.

Our only notable prejudice is industrial revenue bonds, of which we have yet to buy our first. We feel strongly that it is completely improper for the tax-exempt privilege of municipalities to be used for the benefit of taxable corporations.

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9. Municipal bond purchases have been influenced to some degree by the intended use of the bond proceeds. We have generally preferred issues for the purposes of constructive public facilities such as schools, highways, sewer, water, and other public utility purposes, hospitals, irrigation, bridges, public transportation and parking, and university student facilities.

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10. Due consideration has always been given to the intended use of proceeds. [The company favors] most those securities which are issued to finance necessary utility facilities, such as water, sewer, or electric services. Our investment committee tends to be somewhat prejudiced against revenue bonds which are dependent on net revenues generated by estimated traffic flows, such as toll roads, bridges, or tunnels.

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11. Bond purchases are influenced to a considerable extent by the intended uses of the bond proceeds. Direct general obligation or revenue bonds issued for the purpose of providing public services such as schools, utility systems, streets, city halls, etc., are readily acceptable; however, municipal bonds issued for the purpose of constructing plant for private industry (the so-called industrial revenue bonds) are neither desirable nor acceptable, in our opinion.

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12. The intended use of the bond proceeds very definitely influences our decision to purchase. There must exist a need for the facility or project to be financed and it must benefit the community. One type of financing that we have disliked is the industrial revenue.

#### *e. Geographic location*

Nearly half of the sample companies indicated that geographical location of the borrower is not, per se, an influence on bond purchases. One company in noting a limiting role of geography stated that—

Bond purchases have not been markedly influenced by geographical location of the borrower, except to avoid overconcentration in a particular area.

Another replied that it purchases bonds in the States in which it operates. About half of the companies indicated that geographical

location is an influence to some extent but, as indicated by the following quotations, the influences are those bearing more directly on offerings and indirectly on purchases:

Bond purchases are influenced by geographical location to the extent that (i) bond yields vary from State to State; (ii) small municipalities (population less than 10,000) should be suburban to a larger metropolitan center to be most attractive; (iii) areas that are depressed economically and vulnerable to loss of population should have a relatively low debt burden or other offsetting factors.

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Bond proceeds are influenced by the geographical location of the issuer to the extent that it is desirable to have broad diversification. In addition, the number of emissions from certain geographical areas is low as compared with the number of emissions in other areas; and this tends to determine in part the geographical distribution of bonds purchased.

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In the interest of diversification of investments by area a wide geographical distribution of investments is desirable, but it is difficult if not impossible to attain to the extent desired because investments tend to become concentrated in geographical areas where new issue volume of higher yielding acceptable quality bonds is the greatest—generally in the higher economic and population growth areas of the country.

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Geographical location is bound to influence purchases. Laws governing the issuance of and various provisions of municipal bonds vary with each State. Additionally, the economies differ from area to area, some being dynamic, others going downhill.

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Geographic location is of importance as an investment consideration only as it relates to growth in population and growth in a diversified economic climate.

## 2. OBLIGATIONS OF PRIVATE NONPROFIT ORGANIZATIONS

### *a. Types of facilities financed*

The replies of 11 of the 18 sample companies are of particular pertinence to this and the following two questions; the remaining 7 companies had made only small or no investments in the obligations of private, nonprofit organizations. These 11 companies accounted for 44 percent of assets of all U.S. life insurance companies. Almost all of the 11 listed hospitals, churches, schools, colleges, nursing, retirement, or rest homes. In addition, faculty housing, college dormitories, parking facilities, office buildings, YM and YWCA's, community buildings, and seminaries were specified by some companies. One company reported a mortgage loan to a civic, nonprofit organization to set up manufacturing plants as a means of stimulating the influx of industries. Several of the companies specified that loans are usually for the purpose of constructing, expanding, or improving facilities.

### *b. Evidence of loans*

Mortgage notes have been the usual instrument for many of the companies, and for a few this has been the only instrument used. One company, however, indicated that the "loans are generally evidenced in the form of bonds." Some companies also indicated first mortgage bonds, direct obligations with a negative pledge clause, promissory notes, or unsecured notes, but any of these forms are listed along with mortgage notes. One company provided a proportionate distribution of acquisitions between "mortgage notes" and "bonds" for each of the



20 years: the proportion for mortgage notes ranged from about 60 to 100 percent during these years, with any balance as bonds. (It may be noted that the terms "bonds" is used broadly to cover evidences of debt other than mortgage notes.)

*c. Factors influencing purchase*

The general tenor of replies was that (i) availability of bond ratings, (ii) intended use of proceeds, (iii) geographical location of borrower, and (iv) public relations considerations are of little influence with respect to investments. Of the factors listed, intended use of proceeds is of greater influence than the other three items. More important than these are yield, security of debt service, credit standing, and feasibility of the project.

With respect to availability of bond ratings, these bonds generally are not rated. A rating or lack of rating is not an element in the analysis of such loans. The "lack of rating \* \* \*, in fact, may mean the yield on the security will be sufficiently high to be attractive."

As to intended use of proceeds, comments included such statements as that the company would want to be satisfied "that the intended use of proceeds is in the public interest" and "\* \* \* that the proceeds will be applied to the construction of a feasible project which is undertaken in response to a demonstrable need with competent support." Another company answered, "The financial soundness of the borrower governs the purchase far more than the intended use of proceeds but the soundness of the project is, of course, considered."

Geographical location of the borrower is generally of no influence in these purchases. Only one company assessed location as of significant influence. One company commented that geographical location in a nationwide sense is not a determinant except "as the project may be affected by the economics of a particular area (which geographically may mean anything from the immediate neighborhood to a city, county, or more)." Another company noted that geographical location has had some influence on purchases which have been affected to some extent by the location of its mortgage loan offices. One company noted that geographical location is of importance in the case of local service facilities such as hospitals, which should have a sufficient population base, but of less importance in the case of schools where national reputation attracts students from a wide area.

Public relations are for the most part of little or no influence in making these loans. A few companies elaborated as follows:

Any favorable public relations that may accrue to us as lender are important collateral benefits but not a primary consideration.

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\* \* \* our company has recognized the need to lend assistance in financing such local facilities as YM and YWCA's, homes for the aged, nursing homes, and educational facilities. We recognize, too, of course, our obligation to earn a fair and competitive rate of return on behalf of our policyholders.

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Public relations considerations have a limited influence on our disposition to seriously investigate a particular loan proposal. However, the final investment decision is objective and competitive in the light of current market conditions and alternative opportunities.

## B. PORTFOLIO CONSIDERATIONS

## 1. PROPORTION OF ASSETS

The pattern of holdings of municipal bonds as a proportion of assets over the 20 years varied considerably among the sample companies. Two of them showed the highest proportions at the end of 1964 or 1965; their lows had been in 1946 for one company and in 1951-52 for the other. On the other hand, 1965 showed the lowest proportions for three of the companies; for these the highs had been in 1948 and 1949 and, in fact, the dollar investment in municipals was less at the end of 1965 than at end-1946 for two of these companies. The year of highest proportionate investment (but not largest dollar amount) for other companies was shown as 1956, 1959, 1961, and 1964. The magnitude of a "high" proportion varied with size of company: about 3.5 percent for a very large company and 35 percent for one of the smaller companies in the group.

Holdings of obligations of nonprofit organizations appeared as a growing, but small, fraction of assets for most of the companies making these investments. (Several of the smaller companies within the sample group had made few, if any, investments in these obligations.)

Some of the sample companies provided only the proportions requested, but 15 also provided the dollar amounts of holdings of municipals and nonprofit organization obligations. These aggregates are provided in table B-1. The 15 companies represented 43 percent of assets of all U.S. life insurance companies but only 33 percent of the holdings of municipals at the end of 1965. From 1946 through 1952, however, these 15 companies had accounted for over 50 percent of municipals held by all life insurance companies (the latter are provided in table 1 of the introduction). Among the 15 companies, 8 also provided the dollar amounts of either invested assets (including cash) or total assets. (Invested assets comprise the bulk of total assets for life insurance companies.) These eight companies accounted for 22 percent of assets and 19 percent of municipal holdings of all life insurance companies at the end of 1965; their data are the only available to provide some indication of the pattern of holdings of obligations of nonprofit organizations relative to assets. (As noted earlier, there are no industry data on such obligations.) As may be seen from table B-1, the holdings of the 15 companies of obligations of nonprofit organizations increased over the period to total \$550 million at the end of 1965, or 0.8 percent of total assets (the same proportion as for the 8 companies).

TABLE B-1.—*Holdings of State and local government bonds and of obligations of nonprofit organizations, annually, 1946-65*

End of year—	15 companies <sup>1</sup> (millions of dollars)		8 companies <sup>1</sup> (percent of assets)	
	Municipals	Obligations of nonprofit organizations <sup>2</sup>	Municipals	Obligations of nonprofit organizations
1946.....	329	32	0.9	0.1
1947.....	343	54	.9	.2
1948.....	462	71	1.2	.2
1949.....	550	86	1.4	.2
1950.....	599	111	1.7	.3
1951.....	630	143	1.6	.4
1952.....	580	173	1.5	.4
1953.....	621	199	1.6	.5
1954.....	801	221	2.5	.5
1955.....	885	251	2.6	.5
1956.....	996	271	3.1	.5
1957.....	999	298	2.9	.6
1958.....	1,070	320	3.0	.6
1959.....	1,261	338	3.2	.6
1960.....	1,384	344	3.4	.6
1961.....	1,423	362	3.4	.6
1962.....	1,502	374	3.3	.6
1963.....	1,420	430	2.8	.7
1964.....	1,292	436	2.4	.7
1965.....	1,163	550	2.0	.8

<sup>1</sup> 15 of the 18 sample companies reported dollar amounts of annual holdings. 8 of these companies also reported dollar amounts of assets for each year. (Most companies provided total invested assets, but a few, noting that there would be little difference, provided total assets.) A compilation by staff of total assets of the 15 companies for the 1 year, 1965, produced ratios of 1.7 percent of assets held in municipal securities and 0.8 percent in obligations of nonprofit organizations.

<sup>2</sup> 1 company could not provide that part of its holdings in the form of mortgage notes prior to 1963.

Among companies showing a decrease in municipal bond holdings relative to assets, a number accounted for the variation in terms of yield relative to other types of investments:

“\* \* \* The proportion of State and municipal bonds to assets has declined in each of the last 5 years because the yield in municipal bonds has been too low compared to other types of investments to attract our investment funds, thus resulting in very few purchases and sales of several million dollars of these bonds during this period.

Since 1962 municipal securities, as well as other securities, have been liquidated to provide funds for investment at greater yields available in other categories of investment.

The proportion of total investment holdings represented by municipal bonds has declined over the period under review because of the relatively low municipal yields vis a vis private placements and mortgages, even on an after-tax basis. Also, because of the widening of yield spread between tax-exempt and taxable bonds, a large proportion of the municipal portfolio has been liquidated and the proceeds reinvested in taxable securities.

The last company quoted above also noted—

The proportion of total loans and investments represented by private nonprofit organization securities, though small, has increased over the period because of increasing investment opportunities at relatively attractive yields.

## 2. MUNICIPAL SECURITY HOLDINGS

### a. Investment guidelines

Most of the companies answered that there were no established guidelines, or, as one of these indicated, no internal guidelines; this

company noted the provisions of its State insurance law that public utility revenue bonds may not exceed 40 percent of admitted assets and that other municipal revenue bonds may not exceed 33 $\frac{1}{3}$  percent of admitted assets. Another company, replying there were no guidelines, added that—

Purchases of municipal bonds are dictated largely by the availability of such bonds at yields competitive with those obtainable from alternate media of investment after allowance for the tax-exempt feature.

One of the stock companies replied:

The major guideline that we have followed in purchasing municipal bonds is to be sure that we have a sufficient income from tax-exempt securities so that we are not liable for an income tax under phase III of the life insurance tax law. Above this minimum requirement, we consider municipal securities only in relation to where else we can invest our funds at the particular moment.

(This aspect of phase III income tax is pertinent only to stock life insurance companies.)

Another company answered:

Yes. These guidelines are based primarily on yields available on municipal securities as compared with yields available on other loans and investments.

*b. Competition with mortgages*

An apparent divergence in replies to this question arose, at least in part, from whether the question was interpreted as one regarding practical effect or one regarding the alternative investment outlets given consideration. On the one hand, about half of the companies observed that, because of their yield, municipal securities are usually not competitive with mortgage loans (or other securities) on an after-tax basis:

Municipal securities are not competitive with mortgage loans in portfolio determinations because of yield.

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Municipal securities ordinarily, as noted earlier, are not competitive with other types of investments and in consequence of only very small holdings of such securities there has never been any competition between them and mortgage loans.

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This company's tax position has resulted in mortgage loans being considerably more attractive than municipal securities in recent years.

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They are not usually very competitive for life insurance companies because of unfavorable yield comparisons even after adjustment for the tax treatment differential.

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\* \* \* municipal securities are highly desirable; however, during the past few years the yield from municipal securities has not compared favorably with that available from mortgage loans after tax consideration.

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Competition between these investment alternatives involves rate of return, relative quality, and the administrative and operational expenses involved. In today's market we are of the persuasion that municipal securities are seldom competitive with mortgage loans on an after-tax basis.

Other companies, seeming to reply from the viewpoint of the consideration given competing investment outlets, gave the following answers:

Investment funds are allocated between (1) mortgages and (2) bonds as a whole on the basis of relative interest rates prevailing at the time. Municipal purchases must then be competitive in rate (on an after-tax basis) with other bond acquisitions currently being made.

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Municipal securities are strictly competitive with mortgage loans on an equivalent taxed yield basis, with due regard for relative investment quality.

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Mortgage loans are completely competitive with municipal securities in portfolio determination. We try to obtain the maximum after-tax yield (risk considered) for our policyholders.

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All purchases, whether municipal, corporate, or mortgage loans, are competitive.

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Municipal securities are always compared on a taxable equivalent basis with all securities before any investments are made.

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Municipal securities are competitive with mortgage loans to the same extent that they would be competitive with any other investment we might make. We attempt to relate quality and yield after taxes.

### 3. LEVELS OF MUNICIPAL SECURITY YIELDS COMPARED TO OTHER YIELDS

Several of the replies here were in general terms but two-thirds of the surveyed companies gave specific replies. Most of these answers, which were prepared in April-May 1966, were in terms of interest rates then available on corporate direct placements and/or mortgage loans and assumed that obligations of substantially the same investment quality, maturity, and other terms were involved. Since the effective tax rate varies widely among life insurance companies, the interest rates necessary for municipal securities to be attractive also vary by company. As explained by one company:

The value of tax exemption computed as the differential in interest rate at which tax exempt yield is equivalent to fully taxable yield depends upon the specific characteristics of each individual mutual life insurance company and is uniquely determined for that company. If choice is to be made between fully taxable investment income and so-called tax exempt income, the calculation must show that yield at which additional exempt income, less the increased tax liability associated with receipt of such income, is equivalent to fully taxable income, after tax, at yields available in current markets. For [this company] based upon the present nature of our business and the composition of our assets and liabilities, exempt yields would have to be within 0.59 percent of the return currently available in the corporate sector on direct placements and mortgage loans.

Another company indicated that municipal securities would be competitive at yields 50 to 60 basis points below corporate yields of similar quality and terms. Several companies answered in terms of the proportion of taxable yield needed to make a municipal security attractive; two indicated that municipal yields must be about 88 percent of

taxable yields, one indicated 85 percent. Another replied that \$1 of tax-exempt income is the equivalent of \$1.28 of taxable income. From this it may be inferred that municipal yields for this company should equal 78 percent of taxable yields to be attractive.

Still other companies indicated their yield requirements relative to taxable yields as follows: (1)  $5\frac{3}{8}$  percent to compete with 6 percent taxable; (2) 5.40 percent to compete with 6.25 percent; (3) 4.90 percent or better to compete with 6 percent or better. (This last company also noted, as explanatory to the rate requirements, that life insurance company tax laws "are somewhat unique in that tax-exempt income is not fully exempt from taxes.") The interest rate levels specified by these three companies produce proportions of taxable yield (comparable with those in the preceding paragraph) of 90 percent, 86 percent, and 82 percent.

One company indicated that municipal yields of 4.50 percent or higher would be attractive to them. Another said, as a rule of thumb, to add 15 percent to the tax-exempt yield to determine the corporate yield equivalent. One company replied that currently, tax-exempt loans are attractive "at interest rate levels approximately 1 percent lower than taxed yields."

#### 4. MAKING MUNICIPAL SECURITIES MORE ATTRACTIVE

A large majority of the respondents indicated that higher yields were needed—that the yields offered are not competitive with alternative investment outlets, even after tax adjustments. One company added an alternative to higher yields: "\* \* \* or a change in the Life Insurance Company Income Tax Act of 1959 regarding the taxation of municipal bonds is needed to make municipal securities more attractive as investments for our company." Another company simply replied, "Full tax exemption to life insurance companies." A third company also made a similar comment: "\* \* \* the more tax exempt these municipal securities are to a life insurance company, the more interested they will be in them." This was amplified by the company as follows:

If there was a way to change our [tax-equivalency] ratio substantially in favor of municipal securities, then we would undoubtedly purchase a great many more municipal bonds. If this ratio went for example to \$2 to \$1, obviously a 4-percent municipal would be the equal of an 8-percent corporate security. Since corporate securities of any quality are not available at 8 percent, wherein there are many municipals available at 4 percent, we would shift to a municipal security market immediately. Had the *Atlas Insurance* case recently decided by the Supreme Court ruled in favor of the life insurance industry, you would have seen this shift, of course. The effect of that case would have been to change this equivalency ratio.

Two of the companies did not mention yield in answer to this question, and one did so only indirectly:

The attraction of municipal securities as investments is a relative matter. The fact that nearly \$18 billion State and municipal securities were sold in 1965, contributing to an aggregate of nearly \$100 billion of such securities outstanding at the end of 1965, indicates the attractiveness of such securities to certain classes of purchasers, principally banks and individuals.

Complete availability of financial, economic, and social facts of the obligor. Simplification and uniformity with respect to the legal requirements relating to municipal securities.

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A lower demand for such securities from the investors now providing the largest sources of funds for tax-exempt bonds.

#### 5. EFFECT OF FEDERAL GUARANTEE

The consensus of replies was that although a Federal guarantee of municipal securities would make them more attractive because of the absence of any credit risk, municipal securities would be less attractive to life insurance companies because of the lower yields that would be expected with increased quality. Some companies expect that there would also be little price differentiation within the municipal market regardless of credit of the issuer and that the spread would widen between municipal securities and other loans and investments, to the detriment of municipals.

A Federal Government guarantee of municipal bonds while adding to the security would not necessarily make such investments more attractive to this company. With few exceptions, purchases of municipal securities in the past have been confined to revenue issues which, because of the unproven nature of the project being financed, afforded relatively attractive yields. By eliminating all risks through a Government guarantee, such bonds as a group would tend to sell at yields which, under present conditions, would foreclose any interest in this field on the part of this company.

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A Federal Government guarantee of municipal securities would probably have an effect similar to the experience of the federally guaranteed Public Housing Authority securities issues by various municipalities. Currently, the yields on such securities have a narrow spread among the various issues, and generally are about 10 basis points higher than the strongest nonguaranteed municipal securities. Such high-grade securities would have an appeal to certain buyers, but alternative investments of satisfactory investment quality, such as conventional mortgage loans and direct corporate obligations, would probably continue to be more attractive to [this company].

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From observations of the response in the market to obligations of the Public Housing Authority, one must conclude that a Federal Government guarantee does give added attraction to municipal securities. To the extent that the resultant yields are lowered they would not necessarily be more attractive to a wide range of investors.

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A Federal Government guarantee of municipal securities would tend to make them less attractive to this company since the higher quality would result in lower yields. An exception might be a Federal guarantee of more speculative revenue or land development issues that might not otherwise be considered by this company for investment. Yields, however, would have to be competitive with those of corporate private placements on an after-tax basis.

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A Federal guarantee of municipal securities would not tend to make their purchase more attractive for two reasons. First, safety of principal has been adequately demonstrated by history. Second, such a guarantee would tend to drive yields even further below the available net yields on taxable investments.

## 6. YIELDS RESULTING FROM FEDERAL GUARANTEE IN LIEU OF TAX EXEMPTION

Most companies concluded that a Federal guarantee in exchange for tax exemption would not make municipal securities more attractive to them. Beyond this, taxable, guaranteed securities might also be less well received by other investors, unless interest rates were substantially above AAA corporates. The companies' expectations varied somewhat concerning the interest rate levels that would probably accompany such guaranteed securities. As one company noted, these levels might vary, dependent on whether the Federal guarantee was direct, as described below. A number of companies thought that interest rate levels would approximate those of other Federal Government guaranteed issues or Federal agency obligations. If yield levels approximated those of Federal agency securities, these might then not sell so well, one company added. In any event, life insurance companies are not usually investors in low yielding, no risk investments. For taxable guaranteed municipal securities to be attractive to most companies, yields would have to be considerably above expected levels in order to be competitive with yields on corporate bonds and mortgage loans. The following quotations are illustrative of replies to this question:

This avenue of approach, an exchange of yields of order of Federal agency obligations for elimination of tax exemption would be less fruitful than the retention of exemption. The volume of investment funds potentially tapped by a quasi-agency obligation might well be smaller than the volume currently receptive to tax-exempt issues, except at interest rates substantially exceeding those available at the quality of AAA corporate obligations.

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\* \* \* a Federal Government guarantee would likely reduce the offered yield of municipal securities, making them less attractive investment opportunities to us. If the Federal Government were to guarantee directly municipal securities, I would expect that these securities would bear rates of interest somewhat higher than U.S. Treasury securities and somewhat lower rates of interest than either Federal agency obligations or corporate bonds. However, should Congress create a new instrumentality of the Federal Government, and municipal securities were to be guaranteed by this agency, with original capital only supplied by the U.S. Treasury, I would expect that these securities would earn a higher rate of return than U.S. Treasury securities and Federal agency obligations and a lower rate of return than corporate bonds. Under these circumstances municipal securities would be increasingly attractive compared to Federal agency obligations as the yield differential between Federal agencies and municipals widened. However, any form of Federal Government guarantee would remove municipal securities as an alternative investment consideration to mortgage loans.

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A Federal Government guarantee of municipal securities in exchange for making the interest income taxable would probably make such securities the equivalent of other high-grade taxable Government-guaranteed issues such as the ship mortgage loans guaranteed under title XI of the Merchant Marine Act and certain Federal agency loans, both of which obtain yields equivalent to AAA-rated corporate bonds, but somewhat higher than the yields on direct U.S. Government obligations of comparable maturities. Such yields would not be attractive to [this company] in view of our practice of emphasizing higher yielding investments in satisfactory conventional residential, commercial, and farm mortgages and direct, nonrated, corporate obligations.



No. Under these conditions, the yield on municipal securities would approximate the average yield on outstanding securities which are guaranteed by the Federal Government. Yields on other loans and investments are more attractive. The level of interest rates necessary to make yields attractive would have to be at least equal to the average yield of our current purchases. Such yield would have to be close to 6 percent under present conditions.

## C. PROSPECTIVE LOANS AND INVESTMENTS

### 1. POSSIBLE INVESTMENTS 1966-75

Most of the companies did not answer this question with specific amounts but instead indicated that these investments will depend on their supply and yield relative to other investment outlets. Many of the sample companies, based on the experience of recent years and assuming no change in existing tax laws and regulations, did not expect their purchases of municipal bonds to amount to much over the next 10 years. A few companies provided ranges of possible municipal bond purchases per year, e.g., 0 to \$2 million, \$2 to \$5 million, \$5 to \$10 million, but there were too few of these replies to produce meaningful tabulations. Moreover, purchases alone do not provide an indication of likely changes in holdings. One company indicated that its holdings of municipals might increase \$1 to \$2 million a year and its holdings of securities of nonprofit organizations might increase between \$10 and \$20 million a year. Other companies also indicated that they expect to make somewhat larger purchases of nonprofit organization bonds than of municipal bonds, but companies that have not been active in this area generally do not expect to become so.

### 2. BASIS FOR PROJECTIONS

For the few companies that made projections of dollar amounts, these were based on the experience of the last 10 years, the expected continuance of the same investment policies, or on estimates of cash flow and an estimated average percentage of cash flow going into such securities. Among companies that indicated in a general way that they do not expect to purchase much in municipal bonds, there was the expectation that the tax-exempt premium will continue to price life insurance companies out of this market.

### 3. CIRCUMSTANCES FOR EXPANSION OF INVESTMENTS

Investments by life insurance companies in tax-exempt issues would be expanded if their yields were competitive with those on taxable investments (mortgage loans and corporate direct placement bonds). Other circumstances mentioned by some companies, all bearing on relative yields, included an increasing supply of new tax-exempt issues beyond the increase in demand, a decreasing supply of taxable investment outlets, a change in tax rates, and a decrease in the attractiveness of tax-exempt issues to those who currently buy and hold these investments.

## CHAPTER 24

### Fire and Casualty Insurance Companies \*

[Owing to the fact that there are several trade associations to which fire and casualty insurance companies belong, there is no single group that is in a position to describe the activities of, or to canvass the views of all such companies. Accordingly, three of the major associations, the American Insurance Association (stock companies), the American Mutual Insurance Alliance (mutual companies) and the National Association of Independent Insurers (stock and mutual companies) undertook to canvass representative samples of their respective memberships. Committee staff combined the material developed by the three surveys and added certain aggregate data for all fire and casualty insurance companies, which appear in the early section of the chapter.]

#### INTRODUCTION

Fire and casualty insurance companies are financial intermediaries that obtain the bulk of their funds from businesses and households. They invest their funds mainly in the bonds and stocks of governments and corporations. The purpose of these insurance companies is to provide the public with a means of protection against economic loss from specific hazards causing injury to property and persons and in so doing to earn a reasonable profit. This involves a coordination of management functions in providing underwriting and claims services which, together with financial stability, will assure all policyholders that they will be indemnified for all protected losses.

The fire and casualty insurance industry is comprised of several types of private ownership organizations, proprietary and cooperative. Proprietary insurers may be unincorporated (American Lloyds), or incorporated (capital-stock companies). Cooperative insurers are nonprofit businesses owned by the policyholders, or members. Basically, incorporated cooperatives are called mutuals and unincorporated cooperatives are reciprocals.

As of December 31, 1965, there were over 1,216 fire and casualty companies included in Best's Aggregate and Averages. Their total admitted assets amounted to \$41,843 million with stock companies accounting for about 75 percent of the total assets. Mutuals were second with 22 percent; reciprocals and Lloyds had only 3 percent of the total assets.

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\* Prepared by committee staff, based on data furnished by the American Insurance Association, American Mutual Insurance Alliance and the National Association of Independent Insurers, and statistical compilations developed by John Dickie, Office of Economic and Market Analysis, Department of Housing and Urban Development.

TABLE 1.—*Assets of fire and casualty business—1965*

[Dollars in millions]

	Number of firms	Admitted assets
Stock companies.....	805	\$31,298.7
Mutual companies.....	1,344	9,436.7
Reciprocals.....	53	1,051.2
Lloyds.....	14	56.3
Total.....	1,216	41,842.9

<sup>1</sup> Excludes some small mutual companies that are included in the total assets figures.

Source: Best's Fire and Casualty Aggregates and Averages, 1966.

The principal sources of new funds flowing into property and casualty insurance companies are premiums and investment income and, in the case of stock companies, new capital. Table 2 shows that for stock companies increases in reserves derived from premiums accounted for most of the fund increase in 1964.

TABLE 2.—*1964 principal sources of funds—Stock companies*

[Dollars in millions]

Source	Amount	Percent of total
Underwriting.....	-\$417.8	(47.8)
Increases in reserves.....	+796.7	91.3
Investment income <sup>1</sup> .....	+371.7	42.5
New capital.....	+122.4	14.0
Total.....	+873.1	100.0

<sup>1</sup> After Federal income taxes and dividends paid to stockholders.

Source: Data furnished by the American Insurance Association.

Characteristically, the fire and casualty insurance business is marked by the uncertainty about the amount of claims; thus, the major categories of loans and investments reflect financial stability as well as the need for investment income which is used to pay dividends. Since stock companies are subject to regular Federal corporate income tax and the Federal tax law has been recently changed for mutuals and reciprocals (domestic Lloyds are taxed as partnerships), tax-exempt bonds are a major investment outlet. In 1965, holdings of bonds and corporate stocks represented over 85 percent of all property and casualty companies' assets. Municipal general revenue and State and local revenue bonds comprised about 27 percent and U.S. Government bonds accounted for over 12 percent. Relatively large proportions of capital, surplus, and reserves allow these insurance companies to pursue an active role in the corporate stock market which is reflected in their holdings of stock, which constitute 37 percent of the total assets.

TABLE 3.—Major categories of investments, all property and casualty companies

[Dollar amounts in millions]

	Amount	Percent
Bonds.....	\$20,179	48.5
U.S. Government bonds.....	5,326	12.8
Municipal bonds.....	5,736	13.8
State and local revenue bonds.....	5,646	13.6
Corporate bonds.....	2,601	6.2
Other bonds.....	870	2.1
Corporate stock.....	15,260	36.7
Total assets.....	41,571	100.0

Source: Data based on Best's Fire and Casualty Aggregates and Averages, 1966. The following adjustments were made to Best's figures: (1) The assets of Travelers Insurance Co.'s accident department were excluded; (2) estimated holdings of public housing bonds were subtracted from the U.S. Government securities and then added to the State and local special revenue bonds; (3) estimated quasi-Federal Government special revenue bonds were deducted from the "Special revenue bonds" and listed in the "Other bonds" category.

### A. SUPPLY OF CAPITAL

#### 1. NET CHANGE OF HOLDINGS OF MUNICIPAL SECURITIES

Table 4 traces the net change of holdings of State and local government obligations by fire and casualty insurance companies during the years 1957-65. Table 5 shows the yearend holdings for these companies during 1956-65.

TABLE 4.—Net change in holdings of municipal general obligation and special revenue bonds, all fire and casualty insurance companies

[Dollar amounts in millions]

Year	General obligation bonds		Revenue bonds		Total municipal bonds
	Amount	Percent	Amount	Percent	
1957.....	\$344	56.0	\$270	44.0	\$614
1958.....	446	59.8	300	40.2	746
1959.....	553	58.6	390	41.4	943
1960.....	562	55.4	453	44.6	1,015
1961.....	399	42.5	539	57.5	938
1962.....	203	23.1	674	76.9	877
1963.....	139	17.6	649	82.4	788
1964.....	-103	-33.4	411	133.4	308
1965.....	-22	-9.4	256	109.4	234

Source: Data based on Best's Fire and Casualty Aggregates and Averages. (See footnote to table 3.)

TABLE 5.—*Relative proportions of general obligation bonds and special revenue bonds to total municipal bonds, all fire and casualty insurance companies*

[Dollar amounts in millions]

	General obligation bonds		Special revenue bonds		Total municipal bonds	Percent of assets
	Amount	Percent of total	Amount	Percent of total		
1956-----	3, 215	65. 4	1, 704	34. 6	4, 919	21. 9
1957-----	3, 559	64. 3	1, 974	35. 7	5, 533	24. 3
1958-----	4, 005	63. 8	2, 274	36. 2	6, 279	24. 5
1959-----	4, 558	63. 1	2, 664	36. 9	7, 222	25. 9
1960-----	5, 120	62. 2	3, 117	37. 8	8, 237	28. 0
1961-----	5, 519	60. 2	3, 656	39. 8	9, 175	27. 9
1962-----	5, 722	56. 9	4, 330	43. 1	10, 052	30. 0
1963-----	5, 861	54. 1	4, 979	45. 9	10, 840	29. 6
1964-----	5, 758	51. 7	5, 390	48. 3	11, 148	28. 3
1965-----	5, 736	50. 4	5, 646	49. 6	11, 382	27. 4

Source: Data based on Best's Fire and Casualty Aggregates and Averages.

a. *Proportions of securities acquired*

The proportion of revenue bonds to total municipal bonds rose steadily from 35 percent in 1956 to 50 percent in 1965. As noted by several stock companies, this trend was accentuated by the change in regulation Q in late 1962 which raised the ceiling on interest rates which commercial banks were allowed to pay on time deposits, thus making the banks more after-taxes yield conscious. While some commercial banks have been buyers of revenue bonds, the majority have sought general obligation bonds, hence encouraging, on a comparable yield basis, the fire and casualty insurance companies more and more into the revenue bond market. This trend was reinforced by the increased acceptance and availability of revenue bonds at relatively favorable yields.

With respect to mutual companies, a survey found that probably the most important factor in variations in holdings of State-municipal bonds is the individual company's tax situation. The yield on State-municipal bonds is generally lower than that on taxable bonds by a sufficient margin to exclude further purchases in years when no tax saving is involved. Other variables which might influence holdings of State-municipal bonds include fluctuations in cash flow, underwriting results, availability of new cash for investments, feeling that State-municipal bond market is too high, shortage of available offerings of the type the company prefers, interest rate cycles, with companies not anxious to commit to long maturities in periods of low interest rates.

A survey of independent insurance companies regarding their municipal security acquisitions during 1946 through 1965 found the following:

	Range (percent)	Mean average (percent)	Median average (percent)
General obligation bonds-----	13 to 80-----	38	47
Revenue bonds-----	10 to 82-----	39	40
Other (special assessment, limited tax)-----	1 to 23-----	6	8

All of these companies expressed the opinion that any variances from year to year were due to the relative availability and to the yields on the purchases. Two of the mutuals indicated that the purchases were related to Federal income tax considerations and the profitability of the company's operations.

b. *Maturity distribution*

A survey of mutual companies found that there is no uniform pattern, with respondents about equally divided between preference for 20-30 or 20-40 range and 10-15, 10-20 or 10-25 range.

Those favoring longer terms simply have a policy of preferring them, or prefer them because they normally offer a better rate of return and more capital gains opportunities in the event sale of some bonds becomes desirable. Maturity ranges fluctuate, however, depending upon the interest rate cycle, and there are times when such companies have no interest in purchasing longer maturities.

Those favoring shorter terms (from 10 years up) give a variety of reasons. Some feel the typical yield curve gives the optimum yield in the 10-15 maturity range, and beyond that the additional yield does not warrant extension of maturity. Yields are attractive there, and fit into some company programs of attempting to keep something of a level maturity schedule. Emphasis on certain years may change from time to time as maturities schedules are reviewed. The Federal income tax situation is an important consideration for some companies. During the early 1950's, when interest rates were low, some companies favored shorter maturities (as low as 1-5 and 5-10). As interest rates increased some companies favored longer maturities up to the 20-40 year range. Some companies are not heavy buyers of State-municipal securities at present. They feel that, if they were, they probably would be trying to maintain a fairly even distribution, buying longer term bonds to replace maturities, with some purchases in intermediate ranges to replace called securities.

In the case of the stock companies, it was found that maturities of 20-40 years are generally purchased in order to get the higher return which usually prevails. A survey of independent companies revealed the following pattern of maturities of acquisitions:

Maturity	Number of companies	Percentage pattern
Under 1 year.....	1	3
1 to 5 years.....	2	2.4
5 to 10 years.....	2	5.17
10 to 20 years.....	6	5.15, 72
20 to 40 years.....	11	85(2), 7

For the independent companies it was noted that the longer term maturities are purchased in order to give the companies the highest yields, largest call protection and still provide adequate liquidity when added to other items. Short-term bonds are generally purchased when a company feels that it might be able to purchase longer term bonds in a not-too-distant future at a more advantageous price.

c. *Bond ratings*

The survey of mutual companies found that dependence upon ratings assigned by bond rating services does not seem as great as would ordi-

narily be assumed. Some use assigned ratings primarily as a basis for determining the reasonableness of the offering price, but tend to avoid ratings below A because lesser rated bonds tend to perform poorly in adverse markets. Some prefer to do their own rating. Some find them a helpful guide to quality levels, not accepting them in total but using them more as a screening device to eliminate issues they would likely have no interest in. Some ratings have little influence on purchases, with Dun & Bradstreet municipal ratings mentioned as those upon which more reliance is placed than Standard & Poor's and Moody's. Unrated bonds are purchased by some, including those below the top four ratings, but with many purchases in third and fourth rating categories. Some do not go below a Baa rating in buying rated revenue bonds, in accordance with the amortization requirements of the Committee on Valuations of the National Association of Insurance Commissioners, but may go below that rating in buying general obligation issues. In general, ratings are an influence, with investment departments apparently having greater discretion to purchase securities in the top three ratings.

Most larger companies buy unrated bonds, with restrictions. Some do so in local market issues where they are familiar with special circumstances. Whether timely and proper annual operating figures are furnished by the issuing community is a factor in buying unrated municipals. More complete analysis and investigation of unrated issues is required.

Quantification varies by companies. Some buy 90 percent unrated, others 35 to 40 percent, but most are much stronger on rated bonds. Companies which are not now heavy buyers of State-municipal bonds, in some cases indicate that analysis of their present portfolios might be misleading, since they contain a residue of high yielding issues, many of which are not rated.

For the stock companies ratings are a market factor and an influence on price and yield spreads. However, the availability and level of assigned bond ratings are of little influence as to the creditworthiness of municipal investments, since most of the major companies do their own analyses.

Unrated bonds are purchased. Bonds with ratings below the top four grades are generally not purchased. As of December 31, 1964, according to Best's Aggregates and Averages, stock companies owned \$3,737 million (50.8 percent) general obligation bonds and \$3,624 million (49.2 percent) revenue bonds, for a total of \$7,361 million. There are no figures available which would quantify ratings for the industry, but based on a sample representing approximately 40 percent of the municipal bonds owned by the stock fire and casualty industry, ratings are quantified as follows:

	<i>Percent</i>
Aaa -----	17.2
Aa -----	32.9
A -----	26.8
Baa -----	7.9
Ba -----	1.2
B -----	
Caa -----	
Unrated -----	14.0
<b>Total -----</b>	<b>100.0</b>

In the case of the independent companies it was found that in many companies the availability and level of bond ratings assigned by the municipal bond rating services have very little to do with the determination to purchase such securities. As has been indicated earlier, bond purchases are influenced primarily by the yield and availability. Some companies, however, indicated that they prefer bonds rated at least A by Moody's or Standard & Poor's. It appears that each company has its own policy in regard to this matter.

Nine companies indicated that they do purchase unrated bonds. Four companies indicated that occasionally they will purchase unrated bonds if their analysis indicates that the security is equal to or better than that obtainable on the rated bonds they purchase. Only two companies indicated that they do not purchase unrated bonds.

Six companies indicated that they will not purchase bonds with ratings below the top four. Seven companies indicated that occasionally they will purchase such bonds, and only two companies indicated that they do normally purchase such bonds. It would appear that companies will purchase small issues which are too small to be rated or local issues if secure even though not rated. One company has a rule that it can purchase up to 30 percent of such bonds.

#### *d. Intended use of proceeds*

The survey of independent companies reported that seven companies indicated that the purpose for which the issue is to be used does influence their purchase, three companies indicated that this may be a factor; five companies indicated that it does not affect their decision. The following reasons were given by those companies which indicated that it does influence their purchase:

The bond proceeds are considered inappropriate when used for advanced refunding.

Only for short-term funds.

Must have sound reasons for floating the issue.

The funds should be used for "productive purposes."

The company prefers bonds when the proceeds are used for schools or other favorable public needs since it feels that this not only helps the borrower and the country more but it also involves more favorable moral risk.

One company indicated that the credit of the borrower is the primary consideration.

Seven companies indicated that they had no preferences or prejudices regarding intended use of proceeds. The other companies seemed to prefer school bonds, public buildings, construction bonds, electric utility issues, and bonds of a double security such as general obligation water or sewer bonds. The prejudices seem to be against advanced refunding issues, and bond issues which are used for purposes which are not "productive." An example of this latter type may be commercial sport facilities. One company indicated that they would avoid Deep South school bonds and that they have some prejudices against issues from Alaska, Hawaii, Puerto Rico, and Las Vegas.

The survey of mutual companies reported "no unanimity of opinion." Some companies feel use of proceeds is very important, others are less concerned. Bonds designed to finance essential services are widely favored, there is some avoidance of revenue bonds, and much disinclination to invest in industrial revenue bonds. Industrial reve-



nue bonds are not avoided completely, however. Bonds issued for resort or recreational purposes, marinas, parking revenue, and bonds supported by automobile tolls are not in high favor with many companies.

For the stock companies it was found that with respect to unlimited tax general obligation bonds, and limited ad valorem tax bonds, purchases in general are not influenced by the intended use of the proceeds.

With revenue bond issues and special assessment bonds the intended uses of the proceeds are very important. Purposes which contribute to the economic growth of an area and/or the well-being of the populace are favored. Those where the economic feasibility of a project is doubted are generally not purchased.

Most intended uses of the bond proceeds are acceptable to the industry, but it should be noted that there may be differences of opinion with respect to certain purposes such as industrial revenue bonds, pure special assessment bonds, and certain other categories.

#### *e. Geographical location of borrower*

The stock company survey found that the location of a borrower, because of the accident of geography, is generally not a controlling factor in municipal bond purchases. There are certain (premium and other) tax advantages in various States which render their obligations more attractive for investment than those of other States; but this is not a factor of geography.

However, a conscious effort is made by most companies to spread purchases, geographically, with due consideration being given to population factors and the economic conditions of the areas.

For mutual companies, geographical factors do not seem to be as influential as economic and political factors. Important is company judgment as to ability of borrower to pay, so relative economic differences are a factor. There is some effort to achieve geographical diversification by States in which individual companies do business, and some companies plan carefully diversification of bond purchases within a State. There is a tendency to be influenced favorably toward geographical areas with which companies are most familiar, but this is weighted against yields. One-industry towns and depressed areas often are avoided, such as those where physical deterioration is adversely affecting the tax base, where the productive population is moving out, or where there is likelihood of legal challenges of existing financial practices.

For the independent companies it was reported that it appears that the geographic location has very little effect on the determination to purchase the obligations. All companies indicated that they try to have a portfolio widely diversified geographically. Companies may avoid issues of certain geographical areas where the economic, political, or social factors appear less favorable than they would like to see. If the geographic location might affect repayment or marketability, they may decide not to purchase the bonds.

## 2. OBLIGATIONS OF PRIVATE, NON-PROFIT ORGANIZATIONS

Apparently there has been little or no investment in this area by larger mutual fire and casualty insurance companies. A few buy church and hospital bonds, but the amount involved is not significant. Capacity to meet the requirements of the loan is the major considera-

tion. In the case of the independent companies, 12 of the companies indicated that they do not purchase this type of security. The others indicated that they had purchased hospitals, churches, schools, nursing homes, parking garages, and port facilities. Information is not available on stock company activity in such securities.

#### *Factors influencing purchases*

Only the survey of independent companies provided information regarding the factors influencing purchases of obligations of private, nonprofit organizations. This survey reported that two companies indicated that ratings are not a major factor and the other company indicated that usually such issues are not rated. One company indicated that use of proceeds and geographical location are important considerations, another company indicated that debt service capability of borrower is of primary concern rather than the intended use of proceeds. Four companies indicated that public relations considerations had no influence whatsoever.

### B. PORTFOLIO CONSIDERATIONS

#### 1. GUIDELINES FOR MUNICIPAL SECURITIES

The survey on mutual companies reported that there are no particular guidelines regarding holdings of State-municipal bonds in major mutual companies. In general, holdings at any particular period are related directly to a company's tax situation.

For the stock companies it was noted that as a guideline, insurance liabilities are generally covered by fixed income securities, cash and agents' balances. Investment in fixed income securities is primarily in U.S. Governments, corporates, and municipals. The relative proportions in these categories depend on the tax position and investment philosophy of the individual companies.

In response to the question regarding the use of guidelines the survey of independent companies stated that six companies responded with a "no," and nine companies indicated a "yes" in their response. It appears that the guidelines are established to maximize after-tax investment return. All guidelines are highly flexible and depend upon the need for tax exemptions related to underwriting profit and taxable portfolio income.

#### 2. COMPETITION WITH MORTGAGE LOANS

Inasmuch as fire and casualty insurance companies do not make significant investments in mortgage loans, the surveys found that there is little basis for comparison or that mortgages are not competitive with municipal securities.

#### 3. ATTRACTIVENESS OF TAX EXEMPT SECURITIES

The stock companies advised that as a class, municipal securities already have sufficient attributes to make them attractive as investments for the fire and casualty insurance industry. There has been considerable improvement since World War II in the responsibility of the municipal bond underwriters and on the part of the issuing authorities to improve and safeguard their credit standing.

The mutual companies noted that municipal securities are attractive as investments when they yield more than the after-tax yield on taxable securities.

For the independent companies it was found that many different responses were received to this question but they all tend to indicate that this type of yardstick is not used. It appears that municipal securities are attractive in direct proportion to a company's achievement of an underwriting profit. Companies will purchase municipal securities at any level where the net return is greater than the after tax yield on taxable loans and investments.

a. *Making municipals securities more attractive*

The survey of mutual companies found that there is a general feeling that nothing is needed to make municipal bonds more attractive as investments. Greater uniformity or standardization of municipal financial and reporting practices might be helpful. Some think clarification of the status of certain categories of municipal bonds would be useful. A ruling with regard to the Federal Government's attitude on industrial revenue type bonds would be a guide for the companies. Sometimes there seems a tendency to penalize owners of municipal bonds, making them less attractive, such as recent attempts to disallow a certain portion of investment expense based on the proportion of municipal bonds held. This reflects a tendency to pick away at the edges of the tax-exempt concept.

The survey of independent companies provided such suggestions to improve the attractiveness of municipal securities as:

Better presentation of information to aid in selectivity.

Longer and better call protection.

Continuation of a high yield.

Remove the tax liability on discount purchases.

The basic stress is on marketability—we would rather see general obligation bonds issued on a "term" basis rather than serial, with a sinking fund. We believe one large maturity year—rather than serials would be more marketable.

Interest receipts on a single payment basis; or larger principal sums on a single bond.

Better market set in case of liquidation.

More realistic handling for registered securities.

Stability in the income tax area.

b. *Use of Federal guarantee*

Mutual fire and casualty insurance company investment officers responding expressed no enthusiasm for Federal guarantees of municipal securities. They say they have no reason to doubt their continuing ability to select sound municipal obligations which are nonguaranteed. Municipal securities have sufficient quality now, and the power of local taxation is more than enough to insure debt service; local government is better equipped than Federal to determine needs. Defaults among municipal borrowers are negligible due to vigilance of municipalities themselves, municipal bond dealers, legal counsel, and institutional buyers to keep them sound and secure so they will be retired at maturity. The municipal market now allows the investor to direct buying in any one of a number of areas. If an insurance company desires a higher risk, higher income type of portfolio, the

company is free to move in that direction. Probably municipals would become less attractive on a relative basis, since a Federal guarantee would increase quality and decrease return on municipal securities. This would have the effect of equating returns closer to a corporate security in terms of after-tax income, and it seems doubtful that there would be much benefit to the municipal bond market. There might be certain social reasons why a government guarantee might be considered, but a guarantee might do more harm than good. A Federal Government guarantee might make some issues more attractive. The guaranteed issues would tend to sell on a parity with other guaranteed issues such as FHA's. How attractive they would be to the purchaser would still depend on his tax situation, and the yields on alternative investments. A Federal guarantee might be helpful to very marginal issues, or issuers with bad political situations.

The stock companies advised that the credit of most State and political subdivisions is acceptable without the need for a U.S. Government guarantee. From a credit point of view, it would improve their quality; but to the extent such guarantees reduce the rate of return or yield, they would actually become less attractive.

With respect to the independent companies it was reported that only three companies indicated "yes" in responding to this question and one of these responses stated that this would be to a very limited extent. One company indicated the Federal Government guarantee would make municipal securities less attractive to them because it would give all municipal securities a high degree of uniformity in quality, yield, and call protection. Most municipal bonds are now rated in the upper four investment grades. A Federal Government guarantee could increase the price and reduce the yield to the point where they might be unattractive to a large number of investors.

Actual responses of individual independent companies included:

This company would prefer to have the broader selectivity in municipals they now see in terms of maturity, quality, call protection, and yield so that they can select those items best suited to their investment objectives rather than be limited to a uniform yielding obligation which is Government guaranteed.

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This will not stop defaults from taking place. It will only mean that more of our tax dollars will go to support this guarantee. This might lead to certain municipalities going into projects beyond what they can logically support. I doubt that issues that appear to be questionable without a Federal Government guarantee would be more attracted to an investor with it.

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For the same reason that public housing administration bonds have lower yields than other municipals.

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In the quality this company buys, there is sufficient security.

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This company feels they would probably soon lose their tax-free status.

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A Federal guarantee would lower rates—removing a lot of income reward for judgment.

Municipal credit is generally excellent, defaults are rare, and there is no need for the redundancy of Federal guarantee.

*c. Effects of Federal guarantee in lieu of tax exemption*

The survey of stock companies noted that the exchange of tax exemption for a Federal guarantee would not necessarily make these securities attractive as investments. Municipals, whether taxable or tax exempt, must compete on the basis of yield after tax. If taxable, but U.S. Government guaranteed, they would sell at yields similar to those of AAA corporates with minor variations reflecting marketability. To the extent that the aftertax yield spread compared to alternative investments was reduced, guaranteed municipals would lose their competitive attractiveness.

Among the mutual companies, the consensus seems to be that making State-municipal bonds subject to Federal income tax in return for a Federal guarantee would make them less attractive. Some felt they would not purchase municipals at all under such conditions. Inasmuch as 30-year federally guaranteed municipals (PHA bonds) in May 1966, afford a taxable equivalent yield (6.64 percent) significantly higher than either 30-year corporates (4.95 percent) or 30-year Treasuries (4.80 percent), there seems no reason to accept a lesser spread on other municipals under the circumstances outlined. Because of the soundness of municipals in general, together with their record of negligible defaults over the years, a Federal Government guarantee would add very little to their attractiveness as an investment. Addition of a Federal debt service guarantee would tend to lower their yield and make them less attractive to the institutional investor. A Federal guarantee in exchange for taxability of municipal bonds would be too high a price to pay. Short Treasuries, agencies, and AAA-rated corporates now are all yielding 5 percent or better, fully taxable. At current corporate income tax rates this return would be reduced to about 2.50 percent. Government-guaranteed, fully taxable municipals would have to yield considerably more than the latter to make them attractive, because of the historical objective of a minimum 4 percent tax-free municipal yield. Under the proposal municipals would take on the nature of U.S. Treasury Department bonds, which are not in any short supply at the present time. No doubt communities would have to pay considerably more for their borrowings than they do now or have in the past. It would seem reasonable that the yield on a municipal bond which is federally guaranteed, but taxable, would fall somewhere between the returns on Federal agency securities and U.S. Treasury bonds. Federal agency securities are not guaranteed by the Government, and therefore would have a slightly smaller degree of attractiveness than a municipal bond as far as credit is concerned. This is in the context that the Federal guarantee would be a full unlimited guarantee, and would not be in the nature of an agency affiliation. It is possible that the supply alone may force a higher interest rate level for both U.S. Treasury Department securities and municipals, and as a result both categories of bonds would suffer in terms of interest costs. Under the proposal the quality of municipal bonds would be improved, and their attractiveness increased in the sense that they could be purchased with a minimum of research and analytical effort. To the extent that the yield reflected this change they might be less attractive relative to other alternative investments

such as stocks, corporate bonds, Government bonds, or other non-guaranteed tax-exempt bonds. As to level of interest rates, a guess would be that they would tend to sell on a basis comparable with Federal agency obligations with variations depending upon the terms (coupon, maturity, call provision, et cetera) of the particular issue. One reason for so supposing is that as "guaranteed by the Federal Government" they would tend to be classified as such by the investor. It must be considered that such a move to guarantee municipal obligations in exchange for their present tax exemption might reduce the supply of tax-exempt securities to such an extent that the general market would be hard to appraise. There would be an increase in taxable bonds, and possibly a tendency for such yields to rise, including governments. If some tax-exempt securities remain, they may attain some scarcity value, and their yields might tend to decline relative to taxables. The particular investor would still have to choose from the alternatives prevailing at the time, and presumably he would tend to favor those investments providing the best net return after taxes. The actual effect of such a proposal cannot be determined, since so much would depend upon relativities at various points in bond markets.

With respect to the question regarding substituting a Federal guarantee in lieu of tax exemption for municipal securities, individual independent companies responded:

Such securities would then differ little from a Government agency obligation which is guaranteed. Such security would have little attraction to us as do Government agency obligations now outstanding.

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Attractive, yes, but at a much higher interest rate, slightly higher than the rate for U.S. Government bonds.

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We would need too much additional yield to offset the loss in taxes—hence there would undoubtedly be a net loss.

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If a Federal guarantee were made and interest on municipal bonds became taxable, such bonds would be no more attractive as investments than U.S. Government bonds. It depends on the spread, if any, between straight Government obligations and such guaranteed obligations. It is quite possible that more favorable investments could be made in taxable bonds or corporations or in mortgage loans.

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It would make it less attractive.

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We believe "taxability" would offset any advantage gained by the guarantee unless interest rates on municipals were substantially better than rates on Federal Government obligations and at least as good as those in Federal agency obligations.

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In such a case municipal securities would have to compete with all high-grade taxable securities, and would lose their attractiveness to tax-exempt purchasers.

The National Association of Independent Insurers advised:

This is the only question on which all companies were in agreement. They all feel that making the interest on such securities subject to Federal income tax would make these obligations less attractive and would require a much higher interest rate.

One company indicated that, depending on the call features attached to such bonds, they would have limited attraction to them at a yield of under 7 percent. Two companies indicated 5 to 5½ percent at present levels. Two companies indicated at near the yields available on "A" rated corporate bonds.

It appears that since the operations of the companies are predicated upon an underwriting profit, taxable bonds will yield them an aftertax return equal to only 52 percent of the pretax return. Therefore, the pretax yield must be very high in order to give the company an adequate aftertax return on their investment.

## C. PROSPECTIVE LOANS AND INVESTMENTS

### 1. MUNICIPAL SECURITIES

For the stock companies it was noted that during the early post-World War II period, the fire and casualty industry participated actively in the substantial State and local borrowing to finance postponed and expanded public improvements. Large amounts of U.S. Government bonds purchased during the war were sold during those years, and provided a nonrecurring source of funds. During the years 1946-55, the stock fire and casualty companies increased their municipal bond holdings by an average of 29 percent annually. In more recent years, especially with sizable underwriting losses reducing the need for the tax-exemption feature, the increase in State and municipal bond holdings has been reduced to around 6 to 6½ percent annually—reasonably close to that for the economy as a whole. Using a 6-percent annual growth rate (which seems reasonable considering the emerging trends as noted above, and the basic assumption by the Joint Economic Committee of a 5.5-percent growth rate in GNP), and assuming no significant change in the Federal income tax laws applicable to stock fire and casualty companies, nor changes in other factors, the following amounts (millions of dollars) might be invested in State and municipal bonds—general obligations and special revenues:

1966.....	468	1971.....	626
1967.....	496	1972.....	663
1968.....	525	1973.....	703
1969.....	557	1974.....	745
1970.....	590	1975.....	790

In the case of the mutual companies, because of the close relationship between the individual mutual fire and casualty insurance company's tax picture and its purchases of tax-exempt municipals, few companies were able to make any firm estimates of how much they will invest in such securities during the next 10 years. Since respondents are principally larger companies their intentions might not be typical of the mutual insurance industry. Several large companies gave rough estimates of about \$10 million a year as their likely purchases per year over the next decade. Others estimated that about

5 percent of admitted assets will go each year into tax-exempt municipals, others indicated that at any one time from about 30 to 50 percent of their portfolios would be invested in municipals, the annual rate of investment depending upon their portfolios' present composition.

The important point is that there recently has been little underwriting profit in the business, and this seems to be the prospect for the immediate future. Since this makes the advantage of tax-exempt securities slight it seems unlikely that they will be attractive as investments for fire and casualty insurance companies until the underwriting picture changes.

The survey of the independent companies reported that the 14 companies responding to this question indicated that they would be likely to invest in excess of \$100 million each year for the next 10 years. Only one of the companies indicated that they had a tax carry forward until 1971 and would not purchase any municipal securities until that time. The other years would depend on their profitability in the years to come. Since this is only a sample of our companies, I believe that it would be reasonable to assume that our members could purchase between \$500 and \$750 million of municipal securities in each of the next 10 years.

## 2. OBLIGATIONS OF PRIVATE, NONPROFIT ORGANIZATIONS

Mutual companies express little or no interest in investments in debt obligations of private nonprofit organizations. There have been some purchases of university dormitory revenue bonds, but these have been considered as being in the same category as municipals. There was no information regarding stock company interest in these obligations.

Only 1 of the 15 independent companies indicated that they would purchase these types of securities. This was an insignificant amount of \$150,000 annually. The rest all indicated that they would not purchase these types of securities or that only very little amounts would be purchased. It appears that these types of obligations are not attractive to our companies.

## 3. POSSIBLE EXPANSION OF INVESTMENTS OF MUNICIPAL SECURITIES

The stock companies advise that although the competition from the commercial banks in the past 3 years (1962-64) in the municipal bond market may have been a slight factor in the relative decline in the amounts of municipal bonds purchased, the principal factor accountable for this decline has been the unprofitability of the fire and casualty insurance business. The need for tax-exempt income has not been as great as when the industry was recording statutory underwriting profits. An increasing volume of profitable business will enable the industry to increase its volume of State and local municipal bond purchases.

In the case of the mutual companies answers were varied as to what circumstances would lead to expansion of investment in State municipals (not private nonprofit bonds). More than normal increase in admitted assets, or the decision to expand municipal holdings relative to other classes of securities, could lead to expansion, as would further improvements in determinants that would be to the companies' advan-



tage. Municipal purchases might be expanded if tax exemption were assured, and apprehension of Federal Government tampering with the tax-exempt feature relieved. The investment in municipal bonds can be increased only if companies require tax exemption. This implies a level of underwriting income sufficiently high to encourage purchase of tax-exempt income securities. The only really important factor in deciding whether municipal bonds should be acquired is the profit position of the company. There certainly is no incentive to buy municipals when no tax liability exists.

The independent companies noted that the biggest factor that would contribute to the expansion of investments in these securities would be an increase in underwriting profits. Profitability is the big factor since this influences the attractiveness of the investment in tax-exempt securities. Other items that would affect this would be more attractive yields and a deterioration in common stock as an investment.

## CHAPTER 25

# State and Local Public Retirement Funds\*

### INTRODUCTION

#### PURPOSES—OBJECTIVES—FUNCTIONS

A retirement fund whether in public or private enterprise seeks to accomplish two broad purposes; namely: (1) to create a systematic method for removing from the active working force superannuated and disabled employees who are in fact hidden pensioners, effectuating by this process the recruitment policy and stabilizing employment conditions; and (2) to meet in the most economical manner the social obligation of aiding workers to provide against insecurity in old age and disability, and assisting them in making provision for their immediate dependents.

That a reasonable expenditure for retirement purposes is justified has been demonstrated by the advantages to government. They consist of improved service, economies in operation, the retention of competent and skilled workers, and the attraction to the service of persons of proved ability and special skills.

Translated into monetary terms, these advantages offset partially, if not entirely, the governmental expenditures for pensions.

A public employees' retirement fund, therefore, though concerned with the end objective of financial security after retirement, has as its primary aim the furnishing of an indispensable factor in an effective personnel program for government. It seeks to induce the entry of competent people into public administration and their retention in service. Through a formula which relates the pensions directly to length of service, age, and salary, it provides the incentive for the retention in service of the employees which the fund in the first instance has been recruited. It constitutes in essence, therefore, an incentive program. Finally, by providing an annuity reasonably related to the final average earnings, it encourages the retirement of superannuated employees. Through this orderly system of retirement, the fund affords an opportunity for systematic promotion in salary and rank to the younger employees.

The recruitment of personnel in the trained professions for public work is at best hazardous and uncertain. Competition from private enterprise plus a natural inclination toward self-employment with its higher financial rewards tends to restrict the attractiveness of governmental service. And yet this personnel must be obtained if the various services are to be provided.

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\*By A. A. Weinberg, consulting actuary; chairman, Committee on Retirement of the Municipal Finance Officers Association of the United States & Canada 1942-65; actuary Illinois Public Employees Pension Laws Commission 1945 to date, with minor editing by committee staff.

The competition for services is extreme and the retirement fund plays an important role in the recruitment and retention of the employees. The retirement fund, therefore, is an indispensable factor in providing these services and in the effectuation of this policy.

#### NUMBER OF SYSTEMS AND PRESENT ASSETS

Practically all full-time employees of the States and local governments are in some form of retirement fund. Many part-time and temporary employees are also provided retirement coverage. The total number of individual funds exceed 2,300 having approximately 6.2 million members. A small decrease in the number of separate funds has occurred during recent years through mergers with other and larger funds. Coverage includes teachers, policemen and firemen, clerks, mechanics, and all other employees of States and local governments necessary to provide public services to the country's expanding population.

Present assets of State and local public retirement funds are \$31.8 billion. This compares with \$2.6 billion of assets in 1946. Since the year 1946, the rate of increase in assets has been 14 percent per year. During the last several years, however, the rate of increase has slackened to about 11 percent per year. Recent compilations indicate that public employee retirement funds are bringing to the capital funds market more than \$3.5 billion of new money (new funds less benefit payments) annually.

#### SOURCES OF FUNDS AND RELATIVE QUANTITIES

The sources of funds and their relative quantities for the 1964-65 fiscal year have been as follows:

[In millions of dollars]

	Amount	Percent
Total receipts.....	\$5,260	100.0
Employee contributions.....	1,625	30.9
Government contributions:		
From States.....	1,026	19.5
From local governments.....	1,393	26.5
Earnings on investments.....	1,216	23.1

Source: Bureau of the Census, U.S. Department of Commerce.

## RECEIPTS—DISBURSEMENTS—ASSETS

Trends during recent years point to a steady and persistent increase over the years in finances as indicated by the latest compiled figures:

(Amounts in millions of dollars)

Period	Receipts	Benefit and withdrawal payments	Assets—Cash and security holdings
1964-65.....	\$5,260	\$2,008	\$31,814
1963-64.....	4,787	1,844	28,639
1962-63.....	4,394	1,665	25,629
Percent increase:			
1964 to 1965 from 1963 to 1964.....	9.9	8.9	11.1
1963 to 1964 from 1962 to 1963.....	8.9	10.8	11.7

Source: Bureau of the Census, Department of Commerce.

## MAJOR CATEGORIES OF INVESTMENTS

The following table illustrates the major categories of investments for the 1964-65 fiscal year with the amounts for the 1963-64 fiscal year given for comparison:

[Dollar amounts in millions]

Items	1964-65		1963-64	
	Amount	Percent of total	Amount	Percent of total
Cash and security holdings at end of fiscal year.....	\$31,814	100.0	\$28,639	100.0
Cash and deposits.....	323	1.0	300	1.0
Government securities:				
Federal.....	7,397	23.3	6,954	24.3
State and local.....	2,745	8.6	3,082	10.8
Nongovernmental securities:				
Corporate bonds.....	15,098	47.4	13,346	46.6
Corporate stocks.....	1,422	4.5	1,123	3.9
Loans to members.....	15	.1	18	.1
Mortgages.....	3,379	10.6	2,809	9.8
Other.....	1,436	4.5	1,007	3.5

Source: Bureau of the Census data.

## SUPPLY OF CAPITAL FUNDS

## BASIC FACTORS

The investment history of public retirement funds has consisted of a concentration in U.S. Government bonds, and State and municipal bonds. For many years the investments of these funds in State and municipal bonds were confined exclusively to the State of their operation. Since 1946, a considerable relaxing of restrictions occurred and bonds of other States and municipalities were made eligible for investment subject to prescribed limitations and conditions. The realization during recent years that larger earnings could be obtained on other types of securities with reasonable safety has resulted in a broadening of the investment authority by the inclusion of corporate bonds, mortgages, and common stocks. The increasing need of additional revenues has contributed in some measure to this change of policy.

While the investment objectives of private pension funds and public pension funds are basically the same; namely, the realization of the maximum amount of earnings consistent with safety of principal, certain factors exist in public administration which influence in some degree the investment policies of public retirement funds and tend to restrict their operations.

By their very nature, these funds cannot maintain the same freedom and flexibility as funds operating for private enterprise. Legislative controls and statutory regulations, and the rigid screening of the operations of public agencies, impose some restrictions in this regard.

Public retirement funds are frequently subjected to pressures from local agencies to divert a part of their investable assets toward local projects within areas served by the retirement funds even though the investment may be of dubious quality or may call for a lower rate of income. A public sale of bonds for the financing of municipal projects may not bring as favorable a price to the governmental agency as the rate stipulated for the acquisition of these securities by the retirement funds.

Liabilities of retirement funds are of long-term character maturing many years after they have been initiated. The investment objective, therefore, should give emphasis to this factor. The period of accumulation may extend anywhere from 20 to 40 years, followed by a period for the payment of the retirement annuity which may range from 10 to 20 years. The investment policy, therefore, is generally formulated with this factor in mind.

Because of the basic characteristics of retirement fund operations, a continuous flow of revenue to the fund is assured from employee and employer contributions, and interest on investments. This assumes that the employer is currently meeting his funded obligations in a full or partial measure. Whether funding is total or partial, the revenues accruing to the fund are substantially in excess of outgo for benefit payments. The need for emphasis on short-time securities, therefore, or for liquidating securities to meet benefit payments generally does not exist.

The public retirement funds as public agencies are exempt from direct Federal taxation. They have nothing to gain, therefore, from investments in State or municipal bonds. Those who advocate these investments claim that the acquisition of these bonds by public retirement funds is a factor in making a market for these securities, thus facilitating the financing operations of the State and its political subdivisions. This may have some merit in the case of small governmental units involving unknown credits of low quality. Notwithstanding the objections to these investments, conditions have existed in former years, for a relatively short period, where bonds of this type were obtainable at higher yields than U.S. Government bonds or high quality corporate bonds. Under such circumstances, substantial investments in these securities were made.

Interest income is a basic factor in any insurance plan and particularly so in the operation of a retirement fund. Costs are based upon the theory that the reserves of the retirement fund will be continuously invested at an assumed rate of interest. The mortality tables forming the basis of pension cost and used in the calculation of liabilities and reserves reflect the factor of interest. A retirement fund

relies on interest income to meet a substantial portion of its required revenues. Interest has a pronounced effect on pension cost. A differential of one-fourth of 1 percent in the investment income may be considered the equivalent of 5 to 6 percent in contributions, or in the amount of benefits to be provided. Translated into other proportions, any large increase in interest earnings has a market impact on financing the requirements of the retirement fund.

The primary objectives of a realistic investment authority for public retirement funds are the preservation of principal and the realization of a reasonable rate of income. The governing policies are the same as those which reflect prudent management of any investment account except that recognition must be given to prescribed statutory regulations and the factors that are characteristic to the operations of government. The investment base should be such as to bring about a diversified investment account well balanced as to the several types of securities that may be considered appropriate for a public retirement fund in the light of the applicable factors and conditions.

One important principle inherent in the formulation of an investment policy is that a public retirement fund must protect itself to the extent possible against any impairment of principal. Because of the rigid budgeting of governmental revenues and expenditures, and the limitations on revenue sources for government, any loss of principal is not readily recoverable. Conservatism, therefore, dictates all areas of investment operations and constitutes a guiding and predominant policy.

Problems of valuation of investments do not exist for public retirement funds as with banking or insurance institutions, except for a periodic appraisal for purposes of determining changes in the status of the investment credits or in the market value of equity securities.

Conditions in the securities markets during recent years have afforded an excellent opportunity to make conversions of municipal bonds for the purpose of increasing income and upgrading the quality of the investment account. With yields on long-term U.S. Treasury bonds of 40 to 100 basis points higher than the best quality municipal issues, a sale of municipal bonds and the purchase of governments has been advantageous. An even larger rate of income was realized by conversions into corporate securities.

The impetus for an extension of the investment authority into higher yielding corporate bonds has stemmed from the ever increasing tax requirements of the funds and inadequate funding. It also has been due to the recognition that maximum income on invested assets must be a primary objective and that the funds should seek as large an income on investments as is prudent and feasible. The relaxation of limitations and the greater investment latitude for the funds have also been due to their explosive growth in the last decade in terms of memberships and assets.

#### ANNUAL DOLLAR VOLUME

For the period from 1946 to 1965, the annual dollar volume of new moneys available for investment, that is, total revenues from all sources less benefit and administration expense payments, has been \$30 billion. This is at an annual dollar volume of \$1.5 billion.

Over the years, the proportion of available funds for investment has been steadily and persistently upward. The prospects for the period 1966-75 may be quite striking. Based upon the results of current financial operations of the retirement funds, new moneys currently becoming available for investment exceed \$3.5 billion per year. With the continuous increase in the membership of these funds and a broadening of their benefit schedules, the amount of available funds for investment should increase steadily in future years. Within the next 5 years, this amount will in all probability attain a level of \$4.3 billion. By 1975, if the present rate of growth of these funds is maintained, a level of close to \$6 billion is a reasonable expectation.

## RELATIVE PROPORTIONS OF MUNICIPAL SECURITIES

The proportion of State and municipal bonds acquired by the public employee retirement funds has shown a marked change since the year 1946. At that time, State and municipal bonds of the several types for all public funds was equal to 40 percent of total invested assets or approximately \$1 billion. This rate has steadily declined as the funds broadened their investment authority, particularly those of larger size, extending its scope to include corporate bonds, federally insured and conventional mortgages and equities. For example, on June 30, 1965, out of total assets of State and local retirement funds amounting to \$31.8 billion, holdings of State and municipal bonds were equal only to 8.6 percent. This compares with 10.8 percent at the end of the preceding year and about 15 percent 2 years ago.

It appears that the change in the proportion of State and municipal bonds held was more pronounced in the case of the larger retirement funds than those of smaller size. This is clearly shown by the figures compiled by the Investment Bankers Association on investments only of State retirement funds whose aggregate assets amounted to \$21.4 billion, being more than two-thirds of the aggregate assets of all 2,300 public retirement funds. For these State retirement funds alone State and municipal bonds amounted to \$790 million. This is equal to 3.7 percent of total assets. The following table is illustrative:

*Investments of State retirement funds*

	1965		1963		1961	
	Value	Proportion	Value	Proportion	Value	Proportion
		<i>Percent</i>		<i>Percent</i>		<i>Percent</i>
U. S. Governments.....	\$5, 062, 605, 864	23. 6	\$4, 117, 652, 354	24. 3	\$3, 961, 052, 880	29. 9
Municipal bonds.....	797, 153, 429	3. 7	1, 161, 176, 928	6. 0	1, 752, 559, 262	13. 2
Corporate bonds.....	9, 797, 860, 371	45. 8	7, 771, 130, 156	45. 9	4, 964, 176, 396	37. 5
Mortgages.....	3, 125, 396, 456	14. 6	2, 268, 391, 712	13. 4	1, 447, 896, 456	10. 9
Stock.....	1, 063, 569, 746	5. 0	664, 415, 554	3. 9	333, 557, 587	2. 5
Other investments.....	1, 563, 481, 774	7. 3	959, 974, 801	5. 7	775, 566, 024	5. 9
<b>Total.....</b>	<b>21, 409, 971, 634</b>	<b>-----</b>	<b>16, 942, 741, 505</b>	<b>-----</b>	<b>13, 234, 808, 605</b>	<b>-----</b>

Source: Investment Bankers Association.

NOTE.—The figures in this table relate only to State retirement funds. They do not include municipal retirement funds whose invested assets represent approximately an additional 50 percent of the foregoing totals.

In past years pressures have oftentimes been exerted on public retirement funds to help local areas to market their bonds at low interest rates. This was based on the premise that there was some obligation to support the community financial needs. Some retirement funds holding local municipal issues have suffered from lack of geographical diversification. In the event of a regional recession which curtailed tax collections, the retirement fund might have run into financial difficulty collecting interest on its local obligations. However, the growing realization that investment earnings are of paramount importance in the financing of pensions has resulted in significant changes in investment policy in recent years.

In the case of New York City, for example, in 1959 under former investment policies, the several retirement funds of the city had 73 percent of their assets invested in New York City bonds. By mid-1965, following a change of policy, their investment in New York City bonds had been reduced to 35 percent of total investments. This came about as the result of sales of these bonds and by a replacement of matured bonds by corporate issues. As a result of this program investment earnings increased from 3.07 percent in 1959 to 3.93 percent in 1965.

#### POSSIBLE FUTURE TRENDS

Present indications are that further decreases will occur in State and municipal securities held by these funds. These decreases will be due to the cessation of additional investments in these bonds and by a conversion of municipal securities into other types and higher yielding securities, a continuation of the trend in effect during the last 10 years. The larger funds particularly have engaged in this process and have converted large amounts of their State and municipal bonds. During the past several years, the funds have looked to corporate bonds as the main outlet for their cash. For example, funds in the States of California, Kansas, and Tennessee have more than 75 percent of their assets invested in corporate bonds. State and local retirement funds seem to have been the main prop of the corporate bond market during recent years.

Most of the State and municipal bonds purchased by the public retirement funds have been general obligations. Revenue bonds comprise a small proportion of these securities, probably about 15 percent thereof. Few special assessment bonds have been acquired. The relative proportions have not varied materially over the years since a highly restrictive policy has been in effect with the emphasis on security and safety of principal regardless of the rate of return.

Most of the State and municipal bond issues in prior years have been of long term. The more discriminating funds have confined themselves to medium-term bonds, wherever available, during periods of low interest rates when State and municipal bonds could be had at reasonable rates. In times of high interest rates, the policy was to concentrate on long-term securities.

#### BOND RATINGS—PURPOSE OF ISSUES

Bond ratings by municipal security rating services have not been a material factor in the selection of State and municipal bonds for investment. The great majority of bonds acquired in prior years were



issues of small municipalities which could not be rated because of a policy of the rating services not to deal with issues of less than, say, \$1 million. As a result, large amounts of unrated bonds were acquired. It is only the larger issues and issues of the larger municipalities that were assigned ratings. But ratings were generally not a factor in the investments in State and municipal bonds.

Nor was the intended use of the proceeds of material interest or concern to the State and local retirement funds as investors. Rarely did a fund investor inquire of the purpose of the issue or the use of the funds. Bonds were acquired indiscriminately so long as it was a municipal issue of a local government whose identity was well known to the investor.

For the most part purchases were made of the municipalities in the locality, which were known to the managers of the retirement funds. Few funds acquired bonds of other States or municipalities. The managers of these funds, generally a board of trustees, were not sufficiently informed on the subject of investments and were inclined to confine themselves to the local area. It is only in relatively recent years that investment counsel has been employed, and this has occurred for the most part among the larger retirement funds. The seeking of advice and counsel of trained specialists on the subject of investments has led to the extension of the scope of the investment authority to corporate securities and a corresponding diminution of interest in State and municipal securities on the part of these funds.

#### OBLIGATIONS OF PRIVATE NONPROFIT ORGANIZATIONS

During recent years several retirement funds have financed projects of private nonprofit organizations. One large fund financed the construction of a building for the county whose employees it serviced. Another applied a part of its investable funds toward the construction of a building to house certain services of the particular governmental unit. A third provided funds for the building of a hotel which was outside of the nonprofit classification.

These loans are limited in scope and character. Very few such loans have been made. Such loans as have been made have usually taken the form of mortgage notes. The loans were not influenced by bond ratings. The intended use of the proceeds was an important consideration. The purpose was one which would be helpful to the particular governmental unit since the loans were made generally for the construction of certain facilities for such unit. The geographical location was also an important factor. The projects were in areas under the jurisdiction of the governmental unit or in close proximity thereto.

It is frequently maintained that from the standpoint of the public interest, some part of the reserves of the retirement fund might be utilized to assist the governmental unit whose employees are covered by the fund in financing new facilities or additions to existing facilities.

#### PORTFOLIO CONSIDERATIONS

##### STATISTICS ON INVESTMENTS AND LOANS

Annual statistics on yearend holdings of investments and loans for former years are not available. No such compilation had been made

by any agency, either Federal or local or by any research organizations. Considering the fact that in prior years the scope of the investment authority was limited to U.S. Government bonds and State and municipal obligations, there was no demand for information on year-to-year changes in the composition of the investment account. It is only in relatively recent years that the Federal Government initiated the practice of requiring current reports on Government bond holdings. The purpose of this inquiry is to ascertain the changes that have occurred from time to time in such holdings by public employee retirement funds.

As previously stated, the aggregate assets in 1946 were \$2.6 billions. Of this amount about \$1 billion represented State and municipal securities, consisting principally of general obligation bonds. On June 30, 1965, the public retirement funds held State and municipal bonds worth \$2.74 billions. Hence, the increase for the period from 1946 to 1965 was at the rate of \$915 millions per year. These figures, however, are not clearly indicative of the basic trend.

A more correct understanding of the changes in the holdings of these bonds may be had by showing the trend during recent years in holdings of State and municipal securities in the case of the State retirement funds. These funds represent two-thirds of the total assets of all public retirement funds in operation. The following is illustrative:

Year:	<i>Proportion of total investments, percent</i>
1957 -----	25.8
1959 -----	15.7
1961 -----	13.2
1963 -----	6.9
1965 -----	3.7

Federally insured mortgages and conventional mortgages now represent an important media of investment for some of the larger State and municipal retirement funds. Municipal bonds are not competitive with these loans and could not be because of the large differential in interest income. This differential is at least 1 percentage point in favor of mortgage loans.

In order to be competitive with mortgage loans and with corporate bonds, municipal securities would have to provide at least 30 percent greater yield than is now the case. For example, where a long-term municipal bond now sells to yield 3.75 percent this would have to be increased to about 4.75 percent to meet the competition from mortgages and corporate bonds, as well as U.S. Treasury bonds. This level would give effect to the stability and security aspects of these bonds considering that they would be backed by the full faith and credit of the particular State or municipality.

#### GOVERNMENT GUARANTEE

If a Federal Government guarantee is provided on the payment of interest on these bonds in exchange for making interest income thereon subject to Federal income taxes, the securities would seek a higher level in terms of income, a level probably comparable to that of Federal agency issues. It would seem that a guarantee would have to include principal as well if the bonds are to be made more attractive to

public retirement fund investors. The price of these bonds and the income yield would still fall short of the yields obtained on "AAA" rated corporate bonds.

The guarantee by the Government, however, would provide greater security to principal and interest payments than exists in the case of AAA corporate bonds. It may be expected, therefore, that the bonds would still yield about 40 to 50 basis points below the level of AAA corporate bonds. From the standpoint of diversification, however, the funds might be inclined to take on a certain proportion of these bonds, just as they do in the case of Federal Governments, particularly if they are bonds of their own State or a municipality thereof.

#### FUTURE INVESTABLE FUNDS

On the basis of past experience and emerging trends, public employee retirement funds are likely to invest during each of the next 10 years, 1966 to 1975 approximately \$3.6 to \$5.9 billion per year. By 1975, total assets of these funds should approximate \$85 billions. There would probably be no large investments in municipal securities unless a change occurs in their status in relation to public retirement funds. On the contrary, we may look for a continuance of the downward trend in the holdings of the bonds by these funds resulting from sales or maturities.

*Estimated amounts of investable moneys of public employee retirement funds 1966-75*

[In millions]			
Year:	Amount	Year—Continued	Amount
1966 -----	\$3,600	1972 -----	\$4,560
1967 -----	3,700	1973 -----	4,840
1968 -----	3,820	1974 -----	5,130
1969 -----	3,960	1975 -----	5,480
1970 -----	4,130	1976 -----	5,900
1971 -----	4,325		

About 50 percent of these investable moneys of the public retirement funds will probably be invested in rated corporate bonds, 20 percent in common stocks, 10 percent in mortgages (insured and conventional), 15 percent in U.S. treasury bonds and 5 percent in other securities.

#### EXPANDING INVESTMENTS IN MUNICIPAL SECURITIES

The best and most effective way to expand investments in these securities is by increasing the rate of yield. Practically all public employee retirement funds are in need of larger revenues. The States and municipalities are finding it increasingly difficult to meet their normal requirements because of their restricted sources of revenue. The managers of the retirement funds have come to the realization that investment income is one source of revenue which has not been fully exploited or developed. This explains why a great many funds have had their investment authority extended during recent years to include other investment media such as insured and conventional mortgages, corporate bonds, and common stocks.

Investment income constitutes an important source of revenue for financing pensions. For the 2,300 public retirement funds in operation in the United States, investment earnings are equal approximately to 23.1 percent of total receipts from all sources. (See January 1966 publication of the Bureau of the Census, U.S. Department of Commerce.) This rate may be increased to as much as 35 to 40 percent of total receipts under an investment policy which includes higher yielding good quality securities.

If the Federal Government guarantees the principal and interest on municipal bonds, in lieu of the tax exemption, public retirement funds might be inclined to channel a part of their investable moneys into these bonds as a means of providing greater diversity for their investments and to aid the States and municipalities in financing capital improvements.

## CHAPTER 26

### State and Local Governments\*

#### INTRODUCTION

State and local governments have been, and are, prime users of loan funds, as evidenced by the increasing sale of State and local bonds and the mounting outstanding debt, rather than a prime or even secondary lending source of such loan funds. The relationship of debt to construction expenditures makes this quite clear, particularly for local governments where, in some instances, the amount of debt incurred in recent years has exceeded the total construction expenditures for the year. This, in part, is because of refunding issues included in the total debt issued and, in part, because local governments particularly may have issued bonds prior to need for funds and then temporarily invested the proceeds.

#### *State and local construction expenditures and debt issuance*

[Dollar amounts in millions]

Year	State governments			Local governments		
	Construction expenditures	Debt issued	Percent of expenditures	Construction expenditures	Debt issued	Percent of expenditures
1965.....	\$7,508	\$3,022	40.2	\$8,909	\$8,227	92.3
1964.....	7,263	2,793	38.4	8,127	8,450	103.9
1963.....	6,717	2,103	31.3	7,764	7,861	101.2
1962.....	5,960	3,070	51.5	7,593	6,326	83.3
1961.....	5,699	2,205	38.6	7,515	5,876	78.1
1960.....	5,509	2,283	41.4	6,843	5,673	82.9

Source: U.S. Bureau of the Census, Government Finances for selected years.

#### CASH AND SECURITY HOLDINGS

However, cash and security holdings of State and local governments have increased substantially in the past 15 years. This has been particularly true for such insurance trust funds as unemployment compensation, workmen's compensation, and employee retirement funds. Increases in retirement fund assets, which are discussed elsewhere in some detail, have been very rapid. But cash and security holdings of State and local governments for other than insurance trust funds have also increased, rising from \$18,702 million in 1952 to \$44,042 million in fiscal 1964-65; an increase of 146.8 percent. Substantial amounts of such cash and security holdings would not be available as loan funds since they represent offsets to, or sinking funds for, debt that has been issued, or represent bond fund proceeds that have not as yet been expended or required.

\*Prepared by the Municipal Finance Officers Association, with minor editing by committee staff.

In fiscal 1964-65, long-term debt offsets amounted to \$8,261 million and unexpended bond funds totaled \$9,764 million, or 18.8 percent and 22.2 percent of the total cash and security holdings of \$44,042 million. The balance of \$26,016 million, or 59 percent of the total, represented other types of fund holdings.

Of necessity, some cash must be kept on hand and some of the assets must be of a liquid nature in order to assure amounts to meet payrolls and other current bills as they are presented for payment. For fiscal 1964-65, cash and deposits totaled \$19,289 million representing 43.7 percent of total cash and security holdings. Securities held amounting to \$24,752 million, were distributed 8.4 percent in State and local government securities, 68.4 percent in Federal securities, and 23.2 percent in other types of securities.

More and more State and local governments are developing sophisticated cash management programs whereby temporarily idle and other funds are invested for maximum periods of time and maximum rates of return. Since the tax exempt feature of State and local government bonds is of no value to them as investors in securities, and because most of their assets would need to be invested for short-term periods rather than for long-term investment yields, much of the investment of State and local governments has been concentrated in various Federal Government obligations or in certificates of deposit offered by banks. This has resulted in higher interest earnings than if the amounts available for investment had been placed in State and local obligations. Many smaller municipalities have deposited substantial sums in savings and loan associations. Except possibly for some of the turnover or multiplier effects that could be engendered by amounts placed in savings and loan institutions or invested in certificates of deposit, the bulk of the securities held by State and local governments could not be construed as reflecting States and local governments as sources of loan funds to finance capital improvements of State and local governments.

Local governments, while not a major source of loan funds for capital outlay financing, do provide some minor sources that are of benefit to the citizens in the affected areas. Some cities have revolving funds used to finance the cost of projects benefiting a particular property or properties. About 220<sup>1</sup> cities have utilized this approach to finance sidewalks, curbs, and sewer main extensions. The approach used by the city of Jacksonville, Fla., is illustrative. That city has a sidewalk and curb revolving fund which initially began with a \$25,000 appropriation and in 1966 totaled \$360,000. The fund is used exclusively to finance installation of sidewalks upon receipt of a proper petition from the property owners desiring the improvement. The amount loaned is payable in 5 years. The local fund of the city of Buffalo, N.Y., which is used to finance improvements and services to be paid by special assessments, had cash and investments of \$122,000 in 1965. The city of Detroit has two revolving funds to which the general fund contributed capital: sidewalk fund, \$207,999 and other revolving funds, \$550,000. The funds noted are among the larger of this type. In aggregate, they are not apt to total over \$5 million.

States have been the source of loan funds to a greater extent than is true for local governments. However, even in these instances, the

<sup>1</sup> "Municipal Year Book," 1959, p. 211.

amounts have not been large except in one or two instances. The purposes for which the funds were made available have also been limited to (1) industrial loan funds, and (2) school facility loan funds.

#### INDUSTRIAL LOAN FUNDS

As part of their effort to encourage industry, some States have established State loan and loan guarantee programs. Fourteen States<sup>2</sup> have varying types of such programs whereby loans are extended to industry under varying circumstances (Alaska, Georgia, Hawaii, Kentucky, Minnesota, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, West Virginia, and Wyoming). The program is quite new in Ohio and comparatively so in New Jersey and New York. Most of the experience has been in 11 States with Pennsylvania beginning the program in 1956. In 1963, some \$60 million<sup>3</sup> of long-term loans for industry, primarily in depressed areas, had been made. In 1965, this amount had risen to \$151<sup>4</sup> million largely because of activity in New York and Pennsylvania.

Although more States may make direct industry loans as one of the approaches to attract or encourage industry, or may do as some have by merely guaranteeing such loans, it is unlikely that the total made available in this manner will loom large. The alternative approach of financing industrial plants either through general obligation bonds or revenue bonds issued by local governments, appears to be utilized more frequently at the present time.

#### SCHOOL FACILITY LOAN FUNDS

While most States have taken a direct approach to aid local schools to finance both operating and capital outlay expenditures through grants in aid, 16 States have also authorized loan programs<sup>5</sup> to aid financing capital facilities by local schools. In two of these instances (Michigan and New York), funds are loaned to local school districts to meet debt service obligations on State-approved building projects. In the other 14 instances (Arkansas, California, Hawaii, Illinois, Indiana, Maine, Maryland, Minnesota, North Carolina, North Dakota, Ohio, Virginia, Wisconsin, and Wyoming), loans are provided for capital outlay. In some instances, the programs do not appear to have been activated although authorized—Indiana, Minnesota, Ohio, and Wyoming—and in others—Maine and North Carolina—they have been limited in extent or amount. In at least two instances, California and Maryland, funds for the program have been obtained by the State borrowing through the sale of bonds and then loaning the amounts to the school district requiring loan assistance.

<sup>2</sup> "New War Between the States," *New England Business Review*, December 1963; Advisory Commission on Intergovernmental Relations, "Industrial Bond Financing," pp. 77-85.

<sup>3</sup> *New England Business Review*, Federal Reserve Bank of Boston, December 1963, p. 4.

<sup>4</sup> "Industrial Financing Facts on the 50 States," *Industrial Development and Manufacturers Record*, October 1965, p. 39.

<sup>5</sup> Office of Education, U.S. Department of Health, Education, and Welfare, "Financing Public School Facilities," 1959, pp. 170-198.

General public school construction loans authorized by Maryland, since the inception of the program in 1949, total \$265 million:

Year:	<i>Amount authorized</i>	Year—Continued	<i>Amount authorized</i>
1949-----	\$50,000,000	1962-----	\$20,000,000
1953-----	20,000,000	1963-----	50,000,000
1956-----	75,000,000	1965-----	50,000,000

The State school building aid program in California is the largest of the school construction programs. Since its inception in 1949, bonds totaling \$1,615 million have been authorized of which \$1,405 million have been sold. Amounts authorized by California are:

Year:	<i>Amount authorized</i>	Year—Continued	<i>Amount authorized</i>
1949-----	\$250,000,000	1958-----	\$220,000,000
1952-----	185,000,000	1960-----	300,000,000
1954-----	100,000,000	1962-----	200,000,000
1956-----	100,000,000	1964-----	260,000,000

The Maryland program amounts to about 11 percent of the total State loan programs for financing local schools and that of California comprises about 75 percent of the total of all such State programs.

The programs in two other States—Virginia and Wisconsin—have been in operation since well before 1900. Two other programs have been in operation since 1930—North Carolina and Arkansas. These four programs are considered to be permanent programs. Unlike other permanent State school funds, which may be invested in school bonds, the program in these four States is made primarily for the purpose of assistance rather than investment.

While the State loan programs have been substantial, particularly in California, in terms of the total national picture for such loans have comprised only about 4 percent of the funds required for school plant facilities. Direct State aid, rather than loans, has been a more important factor; but the bulk of the local school facilities have been financed from loans made directly by the schools.

Other than for amounts available from State and local retirement systems, States and local governments have not been, and are not apt to be, a major source of loan funds in the future.



## CHAPTER 27

### Municipal Bond Investment Funds \*

#### INTRODUCTION

Municipal investment funds, or tax-exempt bond funds, are registered investment companies, the assets of each of which are invested in a diversified portfolio of interest-bearing obligations issued by or on behalf of States, counties, municipalities, and territories of the United States and authorities and political subdivisions thereof, the interest from which, in the opinion of bond counsel, is exempt from all Federal income taxes under existing law.

Each such fund is a closed-end trust created under the terms of a trust indenture by an investment banking firm—or firms—which acts as “sponsor.” The sponsor establishes each municipal investment fund by acquiring a selected portfolio of municipal (public) bonds, depositing said securities with a trustee bank—or trust company—and receiving in return therefor certificates, or units, each representing a fractional undivided interest in the principal and net income of the trust.

The certificates, or units, then are distributed to investors, either by the sponsor or by a group of investment firms forming an underwriting syndicate. Such distribution may be made at retail or at wholesale to other investment firms. The sponsor and all firms participating in such distribution must be members of the National Association of Securities Dealers, Inc.

The first municipal investment funds were established in 1961 by John Nuveen & Co. (Inc.) and by Ira Haupt & Co. The growth in investment popularity of these funds has been rapid and, to date (March 15, 1966), a total of 20 funds has been created. They had an aggregate portfolio of \$234 million of municipal (public) bonds.

John Nuveen & Co. (Inc.) has been sole sponsor-underwriter of the Nuveen Tax-Exempt Bond Fund, Series 1 to 10, inclusive, representing an aggregate principal amount of \$143 million. Ira Haupt & Co. and its successor sponsor, Bache & Co., and Goodbody & Co., by those firms and Hornblower & Weeks Hamphill, Noyes, and by Goodbody & Co. alone, have syndicated eight different series of the municipal investment trust fund and two series of the tax-exempt income fund, representing an aggregate principal amount of \$91 million.

Such municipal investment funds have numerous similarities, one with another. Substantially all of the units of fractional undivided interest therein have been purchased by private investors, rather than institutional investors, although they are suitable for use by trust companies, the trust departments of banks and the smaller fire and casualty insurance companies.

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\*Prepared by E. H. Davis, vice president, research, John Nuveen & Co. (Inc.), with minor editing by committee staff.

The weighted net current return to certificateholders of all of such funds—at the original offering price in each case—was 3.84 percent, exempt from Federal income taxes. During the period April 1, 1961, to March 15, 1966, inclusive, which was the entire market history of municipal investment funds, the simple average of the Dow, Jones Weekly Municipal Averages (index) was 3.34 percent.

Twenty million dollars of municipal investment funds were created during 1961, \$33 million during 1962, \$27 million during 1963, \$68,500,000 during 1964, and \$80,500,000 during 1965—and \$5 million during 1966 to March 15—thus establishing a rapid upward trend during the initial 5 years of their existence. It is the opinion of the sponsors of municipal investment funds that the volume to be distributed annually in the future will continue to increase.

Additional series of existing municipal investment funds are contemplated by their respective sponsors. It is probable that other investment banking firms will sponsor new municipal investment funds. It appears likely at this time that the existing funds will be vastly expanded as need arises and as the market is developed for this particular type of investment medium.

#### DESCRIPTION OF MUNICIPAL INVESTMENT FUND PORTFOLIOS

On a composite basis all 20 municipal investment funds contained a total of \$234 million of municipal (public) bonds at their respective creation dates, of which 13.5 percent were classified as general obligation (tax-secured) bonds and 86.5 percent were classified as revenue-secured bonds. The simple average municipal investment fund portfolio contained bonds from 31 different issuers and each issue in the simple average portfolio had an average initial size of \$380,000.

All of the municipal investment funds, excepting only the tax-exempt income fund, series 1 and series 2 sponsored by Goodbody & Co., set forth the Standard & Poor's Corp. "quality" rating of each component of the portfolios. In the aggregate, for 18 municipal investment funds, 1 percent of the total initial portfolio was rated "AAA," 4 percent was rated "AA," 23 percent was rated "A" and 72 percent was rated "BBB," a total of 100 percent. As a generality, municipal (public) bonds carrying a rating of "BBB" or higher are investment category, thus considered eligible for investment by banks.

The total amount of interest earned by all of the funds during each year, a composite based upon each of the funds at its respective date of creation, was \$9,538,790, equal to a weighted gross average return—before selling expense, trustee fees and evaluation fees—of 4.07 percent. A representative trustee fee is approximately 72½ cents per year per \$1,000 principal amount of bonds in the portfolio. The initial selling expense, or sales charge is 4½ percent of public offering price of the funds sponsored by John Nuveen & Co. (Inc.) and by Goodbody & Co. alone, and 4¼ percent of public offering price on the other funds. Funds other than those sponsored by John Nuveen & Co. (Inc.) charge their unitholders a nominal amount for evaluation, or regular pricing. The initial weighted net average current return, after all expenses, of all of such funds was 3.84 percent.

## PORTFOLIO DIVERSIFICATION

A representative municipal investment fund had a total initial portfolio of \$13 million of municipal bonds having the following elements of diversification: (1) 14 percent general obligation (tax secured) and 86 percent revenue secured; (2) 27 percent rated "A" and 73 percent rated "BBB"; (3) issued from 19 States (Alabama, Alaska, Arkansas, California, Colorado, Florida, Illinois, Indiana, Kentucky, Mississippi, Nevada, New Jersey, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, and Wyoming); (4) comprised of 29 different issues averaging \$448,000 each; (5) purpose and security: water revenues, 10 percent (4 issues); gas revenues, 7 percent (2 issues); water, sewer, and gas revenues, 2 percent; water and sewer revenues and property taxes, 3 percent; bridge revenues, 5 percent; lease rental revenues, 5 percent; university revenues, 18 percent (6 issues); automobile parking revenues, 5 percent; miscellaneous public works, property taxes, 7 percent (2 issues); toll highway revenues, 8 percent (3 issues); school buildings, property taxes, 7 percent (2 issues). At the date of its creation—October 14, 1965—the weighted average interest rate was 3.95 percent and the net current return was 3.70 percent.

The elements of diversification of any particular municipal investment fund depend in considerable part upon the sponsor's yield and quality objectives with respect to such fund and the bond offerings that were in the market and available to the sponsor during the period when the portfolio was being accumulated—in advance of deposit with the trustee. Such funds have included, in addition to bonds secured by general taxing power—general obligations—utility earnings and tolls, bonds secured by urban transit, incinerator, harbor, park, garage, school-lease and industrial-plant-lease revenues, among others.

## INVESTMENT OBJECTIVES OF MUNICIPAL INVESTMENT FUNDS

Tax-exempt bond funds have been advertised to the public as having the following general investment objectives: "Conservation of capital and an attractive tax-exempt return are the principal objectives of the fund."

Municipal investment funds also may have one or more of a number of special objectives. For example, the municipal investment trust fund, first Pennsylvania series, was created for sale to investors who are residents of the Commonwealth of Pennsylvania. It has the special objective of exemption from local tax in Pennsylvania. With respect to such fund, it was "the opinion of counsel, under existing law interest income to the fund and to certificate holders is exempt from all Federal income tax and *certificates for units are not taxable under the Pennsylvania County Personal Property Tax Act.*" Likewise, the Municipal Investment Trust Fund, First Florida Series, was created for sale to residents of the State of Florida for the reason that "In the opinion of counsel, under existing law interest income to the fund and to certificate holders is exempt from all Federal income tax and *certificates for units are not taxable under the Florida intangible personal property tax law.*"

The Tax Exempt Income Fund, Series 1, is described as follows in the prospectus: "The fund is designed for investors who are willing to invest in a portfolio of *unrated* municipal bonds in order to *achieve*

*higher tax-exempt income than is available through an investment in a portfolio of rated tax-exempt municipal bonds.*" [Emphasis supplied.]

#### BASIS OF EXEMPTION FROM FEDERAL INCOME TAXES

The tax exemption of municipal investment trust funds is provided by a special ruling by the Commissioner of Internal Revenue, to the effect:

In view of the foregoing and based upon the information submitted, it is held that since under the proposed trust instrument there is no power to reinvest in additional bonds or other securities or vary the investment in any manner, the "Tax-Exempt Public Bond Trust Fund, Series 1," will not constitute an association taxable as a corporation for Federal income tax purposes, provided it is operated strictly in accordance with the provisions of the trust instrument.

Under the provisions of the trust instrument, each certificate holder has a right at any time to tender his certificate or certificates to the trustee for liquidation. It is concluded, therefore, that each certificate holder will be considered the owner of a pro rata portion of the trust under section 676(a) of the code and taxable on the income therefrom under section 671. An item of trust income includible in computing the taxable income of the certificate holders by reason of his being treated as the owner of a portion of the trust will have the same character as if such item had been received directly by the certificate holder. Accordingly, to the extent that the income of the trust consists of interest excludible from gross income under section 103 of the code, such income will be excludible from the gross income of the certificate holder.

#### LIQUIDATION OF PORTFOLIO

The indenture, or trust agreement, authorizing and securing a representative municipal investment fund does not permit either the sponsor or the trustee to acquire or deposit bonds either in addition to, or in substitution for any of the bonds initially deposited in the fund except that refunding securities may be exchanged for bonds under certain conditions specified in the indenture.

Therefore, over a period of time a fund cannot retain its original size and composition because the bonds comprising the portfolio will, by their terms, be paid by the issuers at their maturity or by operation of sinking funds established for that purpose by the issuers. The sponsor also may direct the trustee to liquidate bonds upon the happening of certain other events, such as default in the payment of principal and/or interest, an action of the issuer that will adversely affect its ability to continue payment of the principal of and interest on its bonds, or an adverse change in market, revenue, or credit factors affecting the investment stability of the bonds. The trustee is obligated to liquidate any bonds in default as to the payment of principal and/or interest in the event that it has received no instructions from the sponsor with respect to such bonds.

The indenture authorizing and securing each municipal investment fund also provides that any certificate holder may offer his units to the trustee for their conversion into cash (at the bid side of the market for the underlying portfolio) and the trustee is required to sell a portion of the portfolio sufficient in amount to purchase the offered units, provided, however, that the sponsor may purchase for redistribution such units as may be offered to it directly by the certificate holder or, indirectly, by the certificate holder through the trustee. It is important to note that, to date, the respective sponsors have been will-

ing and able to "make" an active secondary market for units of their municipal investment funds and have purchased for resale all such units offered, so that no part of any portfolio has been liquidated for the purpose of redeeming units.

As and when portions of the portfolio of a particular municipal investment fund have been redeemed at maturity, by refunding or by sinking fund operation, the proceeds thereof have been distributed semiannually by the trustee to the certificate holders on a pro rata basis. Such distribution occurs at the time of the semiannual accounting by the trustee, at which time the income from the portfolio also is distributed.

No municipal investment fund has a maturity date. However, at the time each such fund was established, the sponsor thereof recognized that practically the entire portfolio would be redeemed by some distant future date, leaving only a small remnant against which even minimum trustee fees and other costs might be disproportionately high. Therefore, each such fund will reach a specified minimum portfolio level, say, 20 percent of the initial portfolio, at some future date when complete liquidation by the trustee is mandatory.

#### UNIT VALUE AND YIELD IN RELATION TO THE MUNICIPAL (PUBLIC) BOND MARKET

Yield or rate of return is, of course, one of the major factors determining the desirability of any investment medium. The absolute yield for municipal investment funds has been mentioned in preceding sections of this study. However, yield of a municipal investment fund in relation to the yield available from other tax-exempt securities, also, is a significant factor. For the purposes of this study, the initial yield or yields from a municipal investment fund or funds will be described in relation to the Dow, Jones weekly municipal average index of yields.

During the 5-year market history of municipal investment funds the Dow, Jones weekly municipal average index of yields has averaged 3.34 percent. The point of lowest yield (highest price) during that period was 3.10 percent, which occurred during January and February 1965. The point of highest yield (lowest price) during that period was 3.87 percent, which occurred during the first week of March 1966.

The prices (and yields) for tax-exempt bond funds are determined by the trustee (1) on the basis of current bid prices of the underlying bonds obtained from dealers or brokers (including the sponsor) who customarily deal in bonds comparable to those held by the fund; (2) if bid prices are not available for any of the bonds, on the basis of bid prices for comparable bonds; (3) causing the value of the bonds to be determined by others engaged in the practice of evaluating, quoting, or appraising comparable bonds; or (4) by any combination of the above.

The record from time to time of the average yield for one significant tax-exempt bond fund as compared with that of the Dow, Jones index at identical times shows that this fund (1) always produced a yield higher than the Dow, Jones index (largely due to the composition of the bonds included within the Dow, Jones index, as compared to the bonds held in the funds) and (2) that the "spread" between the fund

and index yields in favor of the funds expanded during periods of relatively low yields (and relatively high prices), as follows:

[In percent]

	Lowest yield during market history (January 1965)	Highest yield during market history (March 1966)
Tax-exempt bond fund.....	3.72	3.91
D-J index.....	3.10	3.87
Spread.....	.62	.04

The market history of municipal investment funds indicates that—

(1) the yield (and price) established for municipal investment funds from time to time appear to fluctuate less than the municipal (public) bond market, as a whole (as measured by the D-J Index), and

(2) during periods when there is a relatively widespread between fund yields and general market yields, fund units are a more popular investment medium than when the spread is relatively narrow; a major investment advantage of municipal investment funds has been that, under usual and normal conditions in the municipal (public) bond market, the net current return from such funds averages about fifty one-hundredths of 1 percent higher return than the general market for municipal (public) bonds.

#### INVESTORS IN MUNICIPAL INVESTMENT FUNDS

Prior to 1961, the concept of municipal investment funds was unknown to securities underwriters, dealers and brokers, and of course, most investors also were completely uninformed. In such a situation, the so-called starting-up problems were extensive, not the least of which was the necessity of advertising the new product (municipal investment funds) and explaining its merits to investors on a national scale.

Although some units of the certain tax-exempt bond funds have been purchased by insurance companies and by banks for their trust account beneficiaries, probably 95 percent of the total has been purchased by individuals for private investment. The trustee for one such fund reported that it has approximately 12,500 registered certificate holders. It has been estimated that, making allowance for the fact that some of such holders own units of 2 or more series, there currently are at least 10,000 different individuals owning units of this or comparable funds. Available records show that the average transaction had a market value of more than \$10,000 and that there were more transactions in the \$50,000 to \$100,000 range than there were in the minimum amount (10 units, or approximately \$1,000).

Analysis of fund sales records indicates that at least 75 percent of all transactions were made with individual investors who had not previously purchased any municipal (public) bonds.

It is evident that during a period of only 5 years there has been developed an entirely new concept of tax-exempt investment and an

almost entirely new market area for municipal (public) bonds in the form of fund units. As a generalization municipal investment funds are not heavily invested in the "higher quality" securities (those rated "A", "Aa" and "Aaa") for 2 reasons: (1) They cannot "afford" to do so because they must strive to offer the highest return consistent with safety, and (2) their basic concept of wide diversification of portfolio is, in itself, a significant safety factor so that inclusion of such "higher quality" bonds is unnecessary. Therefore, such funds can be a "home" for unseasoned obligations which might not otherwise command a ready market. "Unseasoned" bonds, by definition, include those of a new, sparsely populated or, otherwise lower echelon governmental bodies without established credit ratings. In the long run this could mean more favorable interest rates for such issuers than would otherwise be the case. The extent of such new market area is conjectural, but may ultimately prove to be multibillion in size.

It has been the experience of a major sponsor-underwriter of tax-exempt bond funds that the creation and distribution of this new investment medium is a profitable activity, as compared to the net profits that might have been earned through an alternative underwriting and distribution of municipal bonds.

Offsetting the possibility of such greater profit, is the fact that the sponsor-underwriter subjects itself to market exposure and the possibility of financial loss. Such exposure exists in two separate areas. A sponsor finds it necessary to accumulate and hold during a period of several months a large part of the municipal (public) bonds which will form the portfolio for the next series of a municipal investment fund. The sponsor may gain or lose on the portfolio accumulation phase of the operation because the value of the bonds on the date of deposit with the trustee may be greater or less than cost. When the series is created, the sponsor-underwriter is exposed to risk of financial loss during the period when such series is being distributed. The risk of financial loss while holding units is, to some extent, even greater than while holding the bonds by reason of the fact that the offering price is inflexible (under the terms of the trust indenture the public offering price of units is defined as a price "equal to the offering price per unit of the bonds in the fund plus a sales charge of  $4\frac{1}{2}$  percent of the public offering price"). Thus the sponsor-underwriter cannot terminate its exposure by distributing units at retail at a price differing from that produced by application of the formula. This concept warrants maximum clarification: on occasion the municipal (public) bond market is subject to vigorous and extended fluctuations; if market prices for bonds fall sharply, a dealer may prefer to liquidate his inventory quickly at whatever price is offered in the free market, rather than to hold them and risk further loss in an extended decline (i.e., "cutting his losses short"); however, fund units do not have a free market in the same sense; a dealer owning fund units must adhere to the selling terms established in the Prospectus (i.e., he cannot sell to anyone at any price he chooses and his flexibility of action is inhibited).

However, the price of municipal bonds is subject to considerable fluctuation. For example, during the last 13 months (February 1965 to March 1966, inclusive) the D-J Index of Yields increased from 3.10 to 3.80 percent. Relating that increase to the market price of a

4-percent bond due in 20 years results in a decline in dollar value from 113.34 to 101.80, or 11.54 points (equal to \$115.40 per \$1,000 of par value). Although market fluctuations of municipal bonds usually are relatively narrow as compared with those of the recent past, it is obvious that market risk is a real risk which must be accepted by any who would aspire to the sponsorship of a municipal investment fund.

It is probable, therefore, that other large investment banking organizations, after analyzing the profit potential of sponsoring and underwriting municipal investment funds, will enter the field in due course. It is almost certain that those investment banking organizations already in the field will vastly expand their fund operations as the market potential is gradually developed. A parallel trend will be the development by municipal investment funds of an equally vast capacity to absorb "new money" issues of municipal (public) bonds.



EXHIBIT I

Name of trust fund	Sponsor	Underwriters	Prospectus	Deposited	Proportion of—	
					Tax bonds	Revenue bonds
Municipal investment trust fund:						
Series A.....	Ira Haupt & Co.....	Ira Haupt & Co. and 46 other firms.....	Apr. 7, 1961	\$10,000,000	\$935,000	\$9,065,000
Series B.....	Bache & Co.; Goodbody & Co.....	Bache & Co., Goodbody & Co., and 4 other firms.	June 1, 1964	10,000,000	600,000	9,400,000
Series C.....	Goodbody & Co.; Bache & Co.....	Goodbody & Co., Bache & Co., and 7 other firms.	Oct. 21, 1964	8,500,000	1,557,000	6,943,000
Series D.....	Bache & Co.; Goodbody & Co.....	Bache & Co., Goodbody & Co. and 10 other firms.	Jan. 26, 1965	15,000,000	1,309,000	13,691,000
Series E.....	Goodbody & Co.; Bache & Co.....	Goodbody & Co., Bache & Co., and 10 other firms.	June 2, 1965	12,500,000	2,009,000	10,491,000
Series F.....	Bache & Co.; Hornblower & Weeks; Goodbody & Co.....	Bache, Hornblower, Goodbody, and 10 other firms.	Oct. 19, 1965	15,000,000	2,766,000	12,234,000
Total or average.....				71,000,000	9,176,000	61,824,000
Municipal investment trust fund:						
1st Pennsylvania series.....	Ira Haupt & Co.....	Haupt and 21 other firms.....	Apr. 13, 1962	5,000,000	250,000	4,750,000
1st Florida series.....	Goodbody and Bache.....	Goodbody, Bache, and 2 other firms.....	Jan. 6, 1965	5,000,000	215,000	4,785,000
Tax-exempt income fund:						
Series 1.....	Goodbody.....	Goodbody.....	Aug. 18, 1965	5,000,000	1,393,000	3,607,000
Series 2.....	do.....	do.....	Mar. 11, 1966	5,000,000	915,000	4,085,000
Total or average.....				10,000,000	2,308,000	7,692,000
Nuveen tax-exempt bond fund:						
Series 1.....	John Nuveen & Co., Inc.....	John Nuveen & Co., Inc.....	July 21, 1961	10,000,000	2,274,000	7,726,000
Series 2.....	do.....	do.....	Jan. 15, 1962	15,000,000	2,240,000	12,760,000
Series 3.....	do.....	do.....	Oct. 15, 1962	13,000,000	1,590,000	11,410,000
Series 4.....	do.....	do.....	May 1, 1963	12,000,000	250,000	11,750,000
Series 5.....	do.....	do.....	Aug. 28, 1963	15,000,000	1,584,000	13,416,000
Series 6.....	do.....	do.....	Jan. 30, 1964	15,000,000	520,000	14,480,000
Series 7.....	do.....	do.....	June 2, 1964	20,000,000	3,886,000	16,114,000
Series 8.....	do.....	do.....	Dec. 18, 1964	15,000,000	3,055,000	11,945,000
Series 9.....	do.....	do.....	Apr. 29, 1965	15,000,000	2,478,000	12,522,000
Series 10.....	do.....	do.....	Oct. 14, 1965	13,000,000	1,830,000	11,170,000
Total or average.....				143,000,000	19,707,000	123,293,000
Total or average.....				234,000,000	31,656,000	202,344,000

EXHIBIT II

Name of trust fund	Number of issuers	Average size of block	Standard & Poor's Ratings (principal amount)				Interest earned per year	Weighted average interest rate (percent)	Percent net current return to certificate-holders; weighted average; interest rate (less expense) to original offering price (percent)
			AAA	AA	A	BBB			
<b>Municipal investment trust fund:</b>									
Series A.....	49	\$196,000	\$430,000	\$380,000	\$3,732,000	\$5,458,000	\$419,524	4.20	4.15
Series B.....	34	294,000	0	420,000	2,271,000	7,309,000	399,289	3.99	3.90
Series C.....	33	258,000	0	745,000	867,000	6,888,000	339,204	3.99	3.90
Series D.....	40	349,000	0	905,000	1,359,000	12,736,000	601,029	4.01	3.80
Series E.....	37	321,000	0	0	2,040,000	10,460,000	499,317	3.99	3.77
Series F.....	47	313,000	0	0	2,540,000	12,460,000	598,476	3.99	3.78
Total or average.....		289,000	430,000	2,450,000	\$12,809,000	\$55,311,000	2,856,839	4.02	3.87
Municipal investment trust fund—First Pennsylvania series.....	31	161,000	0	100,000	1,395,000	3,505,000	201,922	4.04	3.85
Municipal investment trust fund—First Florida series.....	18	278,000	0	0	215,000	4,785,000	198,179	3.96	3.86
Tax-exempt income fund—Series 1.....	22	227,000	(1)	(1)	(1)	(1)	245,483	4.81	4.57
Tax-exempt income fund—Series 2.....	21	238,000	(1)	(1)	(1)	(1)	251,486	4.94	4.75
Total or average.....		233,000					496,969	4.88	4.66
<b>Nuveen tax-exempt bond fund:</b>									
Series 1.....	27	370,000	875,000	550,000	1,800,000	6,775,000	414,672	4.15	4.03
Series 2.....	26	536,000	0	750,000	3,745,000	10,505,000	615,375	4.10	3.94
Series 3.....	26	500,000	0	350,000	3,580,000	9,070,000	531,229	4.09	3.79
Series 4.....	27	444,000	0	0	4,805,000	7,195,000	448,981	4.07	3.73
Series 5.....	29	500,000	0	750,000	4,510,000	9,740,000	613,215	4.09	3.75
Series 6.....	28	517,000	0	1,750,000	3,975,000	9,275,000	615,972	4.11	3.77
Series 7.....	35	541,000	0	1,500,000	5,500,000	13,000,000	815,913	4.08	3.75
Series 8.....	29	500,000	0	250,000	4,180,000	10,570,000	586,458	3.91	3.68
Series 9.....	28	517,000	0	0	2,200,000	12,800,000	590,116	3.93	3.67
Series 10.....	29	448,000	0	0	3,470,000	9,530,000	512,970	3.95	3.70
Total or average.....		487,000	875,000	5,900,000	37,765,000	98,460,000	5,784,881	4.05	3.77
Total or average.....		380,000	1,305,000	8,450,000	52,184,000	162,061,000	9,538,790	4.07	3.84

<sup>1</sup> Ratings, if any, not reported.

## CHAPTER 28

### Personal Trusts as Sources of Funds\*

#### INTRODUCTION

Most of the trust business in the United States is conducted by corporate fiduciaries which may be companies engaged in fiduciary activities exclusively but which, for the most part, are commercial banks with trust departments. Hence, in the following discussion when "trust institution" or "corporate fiduciary" would be appropriate terms, "trust department" will be used for the sake of simplicity.

#### NUMBER AND RELATIVE IMPORTANCE OF TRUST DEPARTMENTS

In the United States in early 1966 there were 3,785 banks with trust powers and of these, 3,503 were actively exercising their trust powers (table 1). The increase in the number of trust departments since 1950 does not seem impressive. However, it should be noted that as trust powers are granted to additional banks each year there is a loss of some separate trust departments through bank mergers. As data given below will clearly indicate, there has been, in addition to an increase in number of bank trust departments, a substantial increase in total assets managed by them.

Added to the banks with trust powers, as of November 1965, there were 49 nondeposit trust companies.<sup>1</sup> These are defined by the Federal Deposit Insurance Corporation as institutions operating under trust company charters which are not regularly engaged in deposit banking but are engaged in fiduciary business other than that incidental to real estate title or investment activities. Some of these nondeposit trust companies, one of which is a member of the Federal Reserve System but is not insured by the FDIC, hold very substantial amounts of trust assets.

TABLE 1.—Number of commercial bank trust departments in the United States

	1950	1955	1960	1961	1962	1966
Insured State nonmember banks.....	870	887	1,066	1,100	1,153	1,232
State member banks.....	636	639	598	600	575	522
National banks.....	1,774	1,727	1,738	1,763	<sup>1</sup> 1,786	<sup>1</sup> 1,856
Uninsured State banks.....					<sup>2</sup> 175	<sup>2</sup> 175
Total.....	3,280	3,253	3,402	3,463	3,689	3,785

<sup>1</sup> Of these, 236 were inactive at the end of 1962; 282 were inactive at the end of 1964.

<sup>2</sup> Approximate number, including some with more than \$100,000,000 of trust assets, as well as many very small departments.

Sources: Federal Deposit Insurance Corporation, Board of Governors of the Federal Reserve System, the Comptroller of the Currency.

\*Prepared by the Trust Division of the American Bankers Association, with minor editing by committee staff.

<sup>1</sup> Offices of Operating Banks Not Insured by the Federal Deposit Insurance Corporation, Nov. 30, 1965, FDIC.

Despite the growth of trust departments in number and in assets managed, many personal trusts continue to be administered by individual trustees. While virtually no data are available concerning these trusts either as to the assets held or the investment policies followed, there is some evidence as to their relative number in the fiduciary income tax returns filed with Internal Revenue Service in 1963 for the year 1962, the latest data available. In 1962 banks and trust companies administered 60.8 percent of all trusts for which returns were filed, and these bank-administered trusts accounted for 60.1 percent of the total income received by trusts in 1962 as revealed by returns filed.<sup>2</sup> Since it is apparent that a large part of the trust business is conducted by individual trustees, the data provided in following sections of this study, covering trust departments only, must be considered quite incomplete.

#### TRUST DEPARTMENT SERVICES

Trust departments provide a wide variety of services. These include the settlement of estates, the administration of guardianships, the performance of agencies for individuals and corporations, serving as trustee under corporate indentures, trustee for community trusts and for endowments, as well as trustee for employee pension and profit-sharing plans. They also act as registrars and transfer agents of corporate securities. A major service, of course, is the administration of personal trusts, our primary concern here.

The relative importance of personal trusts in the overall trust business of the commercial banks may be judged by these figures: The Office of the Comptroller of the Currency has reported that in 1963 trust departments of banks administered \$43 billion in employee benefit accounts and an additional \$101.2 billion in other trust accounts where the banks exercised "some investment responsibility."<sup>3</sup> That same year the Trust Division of the American Bankers Association found through a survey that banks were administering \$82.2 billion in "personal trust accounts."<sup>4</sup> The Comptroller's figure of \$101.2 billion includes certain types of agency accounts which were not reported in the trust division's survey; hence, the trust division figure of \$82.2 billion is more truly representative of strictly personal trust accounts. It is clear that a large percentage of the assets administered by trust departments in their various trust and agency capacities is held in personal trust accounts.

#### ADMINISTRATION AND INVESTMENT OF PERSONAL TRUSTS

In the administration of these personal trusts, trust departments receive from trustors property which they administer for the benefit of others. The trusts may be created under the terms of a will, by agreement or declaration, or by order of a court. The trustee manages the property for the benefit of designated beneficiaries and ultimately distributes assets covered by the trust to designated remaindermen.

<sup>2</sup> Fiduciary, Gift, and Estate Tax Returns, Statistics of Income, 1962, U.S. Treasury Department, Internal Revenue Service.

<sup>3</sup> Stanley Silverberg, "Bank Trust Investments: Their Size and Significance," the National Banking Review, vol. 1, No. 4, June 1964.

<sup>4</sup> Report of National Survey of Personal Trust Accounts, Trust Division, the American Bankers Association, New York (released 1964).

While virtually all kinds of property may be placed in trust, the most common are stocks and bonds, notes and mortgages, cash and real property. Trusteed property also may include established businesses, newspapers, mines, factories, patent rights, licenses to manufacture, and art collections. In administering a trust, the trustee must be guided by the applicable State law and the provisions of the trust instrument.

Insofar as investment powers are concerned, there are applicable State trust investment statutes, court decisions, and of course the wishes of the trustor as expressed in the trust instrument. The general effect of investment powers and limitations is to impose on a fiduciary a high degree of responsibility for investment decisions; failure to invest properly can result in a breach of trust and a beneficiary or remainderman's holding the trustee liable for losses.

In recent years there has been a tendency for States to move toward the prudent-man rule as the proper philosophical concept in making trust investments. In those States which have statutes regulating investments by fiduciaries in more detail than under the prudent-man rule, there are two basic types of statutes. Some are mandatory which provide, in effect, that trustees must invest trust funds in accordance with the terms of the statute unless the terms of the trust provide otherwise. Others are permissive, providing, in effect, that trustees may invest in accordance with the statute unless the terms of the trust provide otherwise. In some States the statutes set forth statistical and other requirements which securities must satisfy to qualify as legal investments. In other States the legislature grants power, usually to the State bank supervisory authority, to issue approved lists of securities for trust investment. As a result of all of the foregoing, it can be stated in general that fiduciaries are permitted to invest in corporate bonds and stocks, U.S. Government securities, real estate and real estate mortgages, and the securities of State and local governments. This is to say that, insofar as the securities issued by State and local governments are concerned, they are legal for trusts unless ruled out by the trust instrument. It should be noted that in investing trust assets trust departments may have complete discretion to operate under the terms of the trust or may have to consult a co-trustee or co-trustees or other adviser.

The specific factors which enter into investment decisions by trust departments will be discussed below in the section on portfolio considerations.

#### VOLUME OF TRUST ASSETS

The amount of assets in personal trusts has never been accurately reported over a period of time. Table 2 indicates the amount and types of assets held in personal trusts in 1963, as revealed by the survey done for the Trust Division of the American Bankers Association, and the amounts and types of trust assets in 1963 and 1964, as shown by the compilation of the Comptroller of the Currency.

TABLE 2.—Trust division's and Comptroller's reports on trust assets

[Dollar amounts in millions]

Type of asset	Trust division 1963		Comptroller 1963		Comptroller 1964	
	Amount	Percent	Amount	Percent	Amount	Percent
Common stock.....	\$54,017.1	65.7	\$61,750	61.0	\$67,300	63.8
State and municipal securities.....	11,644.0	14.1	11,250	11.1	12,200	11.6
Participation in common trust funds.....	4,749.3	5.8				
Corporate bonds and debentures.....	3,032.5	3.7	4,000	4.6	4,900	4.7
U.S. Government securities.....	2,772.7	3.4	9,600	9.5	8,800	8.3
Preferred stock.....	1,315.6	1.6	1,900	1.9	1,500	1.4
Mortgages.....	941.7	1.1	2,400	2.4	1,600	1.5
Cash.....	552.0	0.7	1,800	1.8	1,100	1.0
All other assets.....	3,215.9	3.9	7,800	7.7	8,100	7.7
Total.....	82,240.8	100.0	101,200	100.0	105,500	100.0

Sources: Report of National Survey of Personal Trust Accounts, Trust Division, the American Bankers Association, New York. The National Banking Review, the Comptroller of The Currency, June 1964 and June 1965.

As indicated above, the much larger total reported by the Comptroller of the Currency results from the inclusion of assets of some types of agency accounts which were not covered in the trust division survey. The Comptroller's figures represent actual reported data from national banks with estimates for the holdings of trust departments of State chartered banks.

## A. SUPPLY OF CAPITAL FUNDS

### 1. TREND OF MUNICIPAL SECURITY INVESTMENTS

Table 3 indicates the total amounts of State, municipal and territorial securities outstanding in the years 1945 through 1964, the amounts of such securities held by personal trusts, the net change in such holdings from year to year, and the percentage of total outstanding securities held in personal trusts. It will be noted that the percentage of outstanding State and municipal securities held in personal trusts ranged from 19.25 in 1946 to 12.56 in 1959. This in itself is not a very wide range but it is particularly interesting that since 1959 the fluctuation in this percentage has been extremely narrow, as the table indicates.

TABLE 3.—*State and local government securities*

[Dollar amounts in millions]

Year	Total out- standing	Held by personal trusts	Net change	Percentage of total out- standing held by personal trusts
1945.....	\$16,417	\$2,950	-----	17.96
1946.....	15,736	3,030	+880	19.25
1947.....	16,580	3,110	+80	18.75
1948.....	18,399	3,190	+80	17.33
1949.....	20,538	3,270	+80	15.92
1950.....	23,804	3,950	+680	16.59
1951.....	26,688	4,610	+660	17.27
1952.....	29,217	5,270	+660	18.03
1953.....	32,268	5,410	+140	16.76
1954.....	37,393	6,130	+720	16.39
1955.....	42,706	6,650	+520	15.57
1956.....	47,524	7,250	+600	15.25
1957.....	51,990	7,830	+580	15.06
1958.....	56,790	7,791	-39	13.71
1959.....	61,985	7,786	-5	12.56
1960.....	66,425	9,098	+1,312	13.69
1961.....	71,730	9,946	+848	13.86
1961.....	80,131	10,794	+848	13.47
1963.....	85,915	11,644	+850	13.55
1964.....	91,300	12,200	+556	13.36

Sources: Total outstanding: Statistical Abstract of the United States, Department of Commerce, Bureau of the Census 1958, table 486; 1965, table 553. Excludes obligations of the Philippines and after 1952 the obligations of Puerto Rico.

Held by personal trusts: For 1958, 1959, 1960, and 1963 Report of National Survey of Personal Trust Accounts, Trust Division, the American Bankers Association, New York (released 1964); for 1962 and 1964, estimated; for other years Goldsmith, Lipsey, and Mendelson, Studies in the National Balance Sheet of the United States, vol. II, Princeton University Press, Princeton, N.J., 1963.

There has been no feasible way to obtain data on the holdings of obligations of nonprofit organizations. However, these are believed to be held by trust departments in very nominal amounts.

In the following sections of this study, there will be statements concerning the investment policies followed by trust departments in acquiring their indicated holdings of State and local government securities. As will be stressed, these decisions are generally made in accordance with the requirements of each individual personal trust account. Many of these accounts are individually invested because the amount of funds is sufficiently large to justify individual investment. In recent years, however, trust departments have found it useful to commingle many trust accounts or portions of trust accounts for collective investment. To do so, they have set up several types of common trust funds, including tax-exempt bond funds.

The following paragraphs, extracted from a bank's annual report on one of these funds, provides an excellent statement of the reasons for their use:

In recent years we have found that the tax brackets of many of our trust account beneficiaries have reached a point where some tax-exempt income would be most welcome. Although we have endeavored, where feasible, to provide relief through individual investments in tax-exempt securities, the limited size of trusts in many cases makes such individual investments both more costly to the trust as well as deficient in a reasonable geographic and maturity diversification of investment assets.

In order to remedy this situation this company, on February 1, 1965, established a discretionary common trust fund—tax-exempt fund. This fund operates under the laws of the District of Columbia, rules and regulations of the Comptroller of the Currency, and in accordance with the provisions of a plan approved by our board of directors. Typical of the operation of common trust funds, our

new fund enables us to pool investment funds in such a manner so that the smallest participant can enjoy the benefit of diversification and the economies that larger scale investment commitments afford.

It should be reemphasized that these tax-exempt bond funds are for the investment of existing trusts being administered by trust departments, and a decision as to whether a particular trust account will be invested in whole or in part in a collective fund is entirely at the discretion of the trustees. Banks report each year on these funds to all participating beneficiaries and co-trustees, revealing the amount of each tax-exempt security held, the changes from year to year through purchase or sales, and the change in unit values. In 1962 there were 24 tax-exempt bond funds operated by trust departments and by the end of 1965 there were 104 such funds.<sup>5</sup> While the reports of relatively few of these funds have been available to us, those examined reveal the investment policies of the reporting trust departments and have served as the basis for some of the statements of policy herein.

## 2. COMPOSITION OF SECURITIES PURCHASED

No data are available to indicate the proportion of general obligation bonds held as compared with revenue bonds in all personal trusts. However, there has been a considerable increase in the relative amount of revenue bonds issued by State and local governments. In 1948 revenue or nonguaranteed State and local securities amounted to 12.4 percent of the total State and local issues outstanding.<sup>6</sup> By 1963 about 39 percent of outstanding issues were revenue bonds.<sup>7</sup> In 1965 when \$7.2 billion of general obligation bonds were issued, \$3.5 billion of revenue bonds were sold.<sup>8</sup> Since revenue bonds, therefore, have become a large proportion of total State and municipal bonds available, and in most cases have been of good quality, there has been a tendency for trust departments to add relatively to the holdings of revenue bonds. This has been so particularly because trust departments tend to buy more tax-exempt securities upon original issue than in the secondary market. The following reveals the reasoning on revenue bonds of one trust department which operates a substantial tax-exempt bond fund:

In general, our objective has been to invest the fund's assets in good quality, higher yielding tax-exempt bonds. This philosophy is reflected in our selective use of revenue-secured obligations which now comprise the fund's largest holdings, in terms of both their relative share of total assets and the size of individual issues purchased. Among the more important advantages of investment in these issues are the generally large supply of bonds available for additional purchases and a ready market in the event that sales may be desirable, the potential for capital gains due to the fact that many issues are undervalued in the early stages of a facility's development, and the often substantial yield differential from other tax-exempt issues.

<sup>5</sup> "Collective Investment Funds Operated Under or in General Conformity with Regulation 9 of the Comptroller of the Currency." Compiled annually by the trust division, the American Bankers Association, New York.

<sup>6</sup> Roland I. Robinson, "Postwar Market for State and Local Government Securities," Princeton University Press, Princeton, N.J., 1960.

<sup>7</sup> "Statistical Abstract of the United States 1965," U.S. Department of Commerce, Bureau of the Census, table No. 573.

<sup>8</sup> Federal Reserve bulletin, June 1966.



Examination of some bank tax-exempt bond funds indicates that revenue bonds can easily amount to between 40 and 50 percent of total portfolios. The following table 4 gives the figures for one \$88.6 million fund.

TABLE 4

Rating	General obligations	Revenue issues
AAA.....	\$9,215,000	\$813,000
AA.....	17,470,000	8,235,000
A.....	14,151,000	18,878,000
BAA.....	5,805,000	5,842,000
BA.....		650,000
Unrated by Moody's.....		7,587,000
Total.....	<sup>1</sup> 46,641,000	<sup>2</sup> 42,005,000

<sup>1</sup> 52.61 percent of total fund.

<sup>2</sup> 47.39 percent of total fund.

Special assessment bonds are considered to have primarily local markets and the amount of limited tax bonds in existence has been declining and is relatively small in volume.

#### *Maturity distribution*

It is believed that 10- to 20-year maturities are generally favored by trust departments, although substantial amounts of longer issues are used. Revenue bonds usually have a fairly long maturity but, due to the operation of sinking funds, are in effect of a shorter average maturity that the final maturity date indicates. Trust accounts tend to average about 20 years in length and, unless there are unusual requirements in the particular account, fairly long maturities are purchased, especially during periods of relatively high yields, since a major reason for buying the longer maturities is to obtain the higher yield which they normally provide. One large tax-exempt bond fund has an average maturity of 23.58 years.

Following is the maturity schedule of another very large tax-exempt bond fund:

Years:	Percent
5 or less.....	3
6 to 10.....	8
11 to 15.....	14
16 to 20.....	20
More than 20.....	51

### 3. FACTORS INFLUENCING PURCHASES

#### *Bond ratings*

Trust departments with their own investment research staffs are likely to rate available State and local securities after their own analysis. They will of course check ratings assigned to particular issues by the rating agencies but be guided primarily by their own appraisals. Trust departments which do not or cannot have their own investment research departments are likely to be guided more by the bond ratings and by the recommendations of investment advisory services, including those provided by correspondent banks. Local issues are purchased largely by local banks because these banks know the financial strength of the issuers, and are guided by this knowledge rather than ratings assigned to the issues, if any. Unless the obliga-

tions of a community total a certain figure, some of the rating services do not issue ratings. Unrated bonds are, therefore, frequently purchased but these would be concentrated primarily in issues of communities with which the buyer is familiar, except in the case of revenue bonds which are a special case. These, even when issued by well-known entities, are frequently not rated, especially when a fairly lengthy construction period is involved.

Some purchases of issues with ratings below the top four are made. It has been estimated that 5 to 10 percent of the dollar amount purchased each year are rated below the top four categories and another 10 to 15 percent unrated. The amount of unrated issues may be far larger—as high as 40 percent—when banks buy the issues of entities in a given area in which a larger than usual percentage of all issues is unrated. Reference to table 4 above shows that there were about \$7.6 million of unrated bonds in the fund reported. This was 18 percent of the revenue issues in the fund and 8.6 percent of the total fund. Also, it may be noted that \$8.2 million, or about 9.3 percent of the fund, was in bonds rated below the top four grades.

#### *Use of proceeds*

The purpose of issue of general obligation bonds has comparatively little influence on whether or not the purchase is made. The first considerations are the financial strength of the issuer and the specific terms of the issue. If the credit of the issuer is weak, bonds issued for unimportant purposes probably will be avoided. However, in the case of revenue bonds, the purpose of issue is very important. In general, bonds issued to finance water, sewer, and electric operations are preferred over auditorium, stadium, resort areas, bridge, tunnel, and toll road issues. Many trust departments do not believe revenue or general obligation bonds should be issued for the purpose of constructing industrial plants; and they have a general policy of not buying them. However, those trust departments which do buy them carefully weigh the type of facility to be constructed and the financial strength of the proposed user of the facility.

#### *Geographic location*

The geographic location of a borrower per se does not have a great deal to do with the investment decisions of trust departments if the underlying credit is judged to be good. Since diversification is one of the desirable features for a tax-exempt bond fund or any single account investment in State and municipal securities, trustees will tend to seek diversification on a geographic basis as well as in other ways. They will, of course, consider the protection provided by State laws for bondholders, and there are some special geographic considerations:

1. Small local issues are likely to be taken by banks in the local areas because it is difficult for small issues to tap the national market.

2. In some cases, where the income from State and local securities in a given State is exempt from income taxes in that State, the bonds issued by entities within the State are likely to be attractive for trust accounts for residents. The States generally tax the income on each other's securities, but do not tax their own securities.

Table 5 shows the geographic distribution, by States, of securities held in three selected tax-exempt bond funds.

TABLE 5.—*Geographic distribution of investments held in selected tax-exempt bond funds*

[In percent]

State	Fund A	Fund B	Fund C
Alabama.....	4	1.77	11.30
Alaska.....			
Arizona.....	1	1.42	2.11
Arkansas.....	6	4.09	
California.....	9	7.16	15.70
Colorado.....	1	3.13	7.90
Connecticut.....	1	.52	
Delaware.....	2		
District of Columbia.....			
Florida.....	5	2.57	2.05
Georgia.....	3	1.54	
Hawaii.....	1		2.07
Idaho.....			
Illinois.....	4	9.78	15.21
Indiana.....	2	4.08	
Iowa.....	2		
Kansas.....	1		
Kentucky.....	1	1.83	
Louisiana.....	1	.79	
Maine.....			
Maryland.....	1		2.06
Massachusetts.....	1		3.12
Michigan.....	5	14.07	2.05
Minnesota.....	2	1.46	2.05
Mississippi.....	2	2.27	
Missouri.....			
Montana.....	1		
Nebraska.....	1		2.04
Nevada.....			
New Hampshire.....			
New Jersey.....	1	2.36	
New Mexico.....	1	1.01	
New York.....	11	21.54	13.38
North Carolina.....			7.25
North Dakota.....			
Ohio.....	1	.36	
Oklahoma.....	1		
Oregon.....		1.02	
Pennsylvania.....	8	1.19	6.22
Rhode Island.....			
South Carolina.....			
South Dakota.....			
Tennessee.....	1	1.03	2.04
Texas.....	2	4.03	
Utah.....		2.53	
Vermont.....			
Virginia.....		.51	
Washington.....	9	4.89	
West Virginia.....			
Wisconsin.....	3	.63	
Wyoming.....	1		
Puerto Rico.....	2	2.42	2.99
Cash (net).....	2		.46

## 4. OBLIGATIONS OF PRIVATE NONPROFIT ORGANIZATIONS

While we have no accurate data available, it is believed that there have been very few purchases of obligations of nonprofit organizations for trust accounts. A leading underwriter of church, school, and hospital securities has estimated that the total volume of such obligation issued is approximately \$335 million per year.<sup>9</sup> Based on its own underwriting experience, the firm judges that approximately 50 percent of these are now sold to institutions and the other 50 percent to individuals. Of the total volume, probably 21 percent is sold to banks, which would mean sales to banks of approximately \$70 million. The amounts held by the banks for their own accounts and the amounts purchased for trust accounts are unknown. However, it is believed that

<sup>9</sup> B. C. Ziegler & Co., West Bend, Wis.

fairly substantial amounts of the bank purchases of the obligations of nonprofit organizations are in large blocks for pension funds. Very recently there has been some interest in mortgages on homes for the elderly insured by the Federal Housing Administration under section 231 of title II of the National Housing Act and on nursing homes under section 232 of that title. At the end of 1964 there were \$351.5 million of mortgages out under section 231, of which \$115.5 million were held by commercial banks, and there were \$155.7 million of mortgages out under section 232, with \$36.1 million held by commercial banks.<sup>10</sup> While presumably mortgages under these two sections are for the most part bought by the banks for their own accounts, some unknown amount would be in personal trust accounts. In any event, the aggregate sums involved are very small.

It is believed that ratings on the bonds of nonprofit organizations are few and, in any case, would not carry much weight. Since in most cases the proceeds of the issues of nonprofit organizations are to be used for schools, hospitals, churches, and religious orders, the bonds generally would be considered for worthy purposes and the prime consideration of the potential buyers would be the underlying credit risk. In the investment of personal trusts, it is most unlikely that public relations considerations would be involved.

## B. PORTFOLIO CONSIDERATIONS

### 1. TREND OF ASSET HOLDINGS

Table 6 indicates for the years 1946 through 1964 total assets administered in personal trust accounts by trust departments and shows the percentage of such assets represented by State and municipal securities. This percentage rose between 1946 and 1953 from 10.44 to 15.18. It then declined but had risen by 1957 to 16.94, the highest percentage over the period shown by the table. From 1957 there was a general decline to 1964 when the percentage was 13.61. Despite these variations, it is clear that except for a few years since 1951 the percentage of personal trust assets represented by State and local government securities has remained fairly constant.

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<sup>10</sup> "Housing and Home Finance Agency, 1964 Report," p. 96.

TABLE 6.—*Personal trust assets*

[Dollar amounts in billions]

	Total trust assets	State and local government securities			Total trust assets	State and local government securities	
		Amount	Percent of total trust assets			Amount	Percent of total trust assets
1940.....	\$28.74	\$3.0	10.44	1956.....	\$50.84	\$7.3	14.36
1947.....	29.41	3.1	10.59	1957.....	46.04	7.8	16.94
1948.....	30.29	3.2	10.56	1958.....	49.68	7.8	15.70
1949.....	32.44	3.3	10.17	1959.....	57.17	7.8	13.64
1950.....	34.25	3.9	11.39	1960.....	62.34	9.1	14.60
1951.....	35.41	4.6	12.99	1961.....	68.56	9.9	14.44
1952.....	35.92	5.3	14.76	1962.....	75.41	10.8	14.32
1953.....	35.58	5.4	15.18	1963.....	82.24	11.6	14.11
1954.....	43.69	6.1	13.96	1964.....	89.64	12.2	13.61
1955.....	49.87	6.6	13.23	1965.....	96.50	13.2	13.68

Sources: For 1958, 1959, 1960, and 1963 "Report of National Survey of Personal Trust Accounts," Trust Division, the American Bankers Association, New York; for 1964 and 1965 estimated; for other years Goldsmith, Lipsey and Mendelson, "Studies in the National Balance Sheet of the United States," vol. II, Princeton University Press, Princeton, N.J., 1963.

## 2. PORTFOLIO GUIDES

There are no guidelines established by trust departments regarding the proportion of tax-exempt securities which should be held in relation to other types of investments.

It must be stressed that in investing the funds of personal trust accounts, trust departments consider solely the best interest of the individual account. This means consideration must be given to the needs of the income beneficiaries, as well as those of the remaindermen within the limits which may be set forth in the trust instrument. Therefore, investment decisions must be made after considering at least the following:

- (1) The needs of the income beneficiaries for current income;
- (2) The length of time the trust has to run;
- (3) The age of the income beneficiary and the ages of remaindermen; and
- (4) The income of the beneficiaries from other than the trust assets.

In weighing the above factors, the trust investment officer can decide whether current income should be maximized or whether investments should seek both income and capital gains in equity securities. The problem of maximizing current income will, of course, raise the question as to whether the total income of the beneficiaries from the trust and from other sources would justify seeking tax-exempt income through the purchase of State and local securities. The answer is clear when the beneficiaries are in the higher income tax brackets. In such cases mortgages are not at all competitive with tax-exempt securities because the interest earned on mortgages, being fully taxable, is not high enough to offset the advantage of tax exemption. When beneficiaries are at lower marginal tax rates, mortgages may become attractive.

Table 7 shows clearly why those in higher income tax brackets would benefit by tax-exempt investment income. For example, a taxable yield of 6 percent would be required just to equal a tax-exempt yield of 3 percent for one in the 50 percent income tax bracket.

TABLE 7.—*Tax-exempt yields and equivalent taxable yields*

Tax-exempt yield in percent	Federal income tax brackets		
	30 percent	50 percent	70 percent
1.00.....	1.42	2.00	3.33
1.50.....	2.14	3.00	5.00
2.00.....	2.85	4.00	6.66
2.50.....	3.57	5.00	8.33
3.00.....	4.28	6.00	10.00
3.50.....	5.00	7.00	11.67
4.00.....	5.71	8.00	13.33

Source: Adapted from a table published by Bache & Co., Inc., New York.

### 3. TAX EXEMPTION AND FEDERAL GUARANTEES

It cannot be stated at what interest rate levels, as compared with the interest rates on taxable loans and investments, municipal securities become attractive as investments. The key factor is the marginal tax rate of the beneficiary. When yields on State and municipal securities are low—for example, at 1.65 percent—and the yields on corporate bonds are at 2.66 percent, those taxpayers with marginal income tax rates above 38 percent would benefit by tax-exempt securities. However, when tax-exempt bonds yield 3.27 percent and corporate bonds yield 4.35 percent, those taxpayers with marginal income tax rates above 24.8 percent would fare better with tax-exempt securities. Obviously, there are more taxpayers with the lower marginal income tax rates than with the higher marginal rates. At almost any given spread between yields on municipals and yields on corporates, there would be some taxpayers who would benefit from tax-exempt income. As the marginal income tax rate that would equalize the yield on municipals with the yield on corporate bonds declines, the number of potential investors who could profit from tax-exempt income will increase. Since 1952 this marginal rate has not been above 30 percent.

Despite the value of the income tax exemption, there are some situations in which State and local government securities are attractive for other reasons. Thus, in Pennsylvania a personal property tax virtually eliminates corporate bonds from a trust account subject to the tax. Such accounts are invested in Pennsylvania tax-exempt securities regardless of the income tax bracket involved.

There doesn't seem to be anything needed at the present time to make municipal securities more attractive for trust account investment, except possibly a subsidence of inflation which would benefit all fixed-income investments in relation to other investments. A Federal Government guarantee of municipal securities would eliminate the discipline of the marketplace. The relatively high credit rated borrowers would be left on about the same basis as the relatively poorer credit risks and there would be the possibility that less desirable local projects, from an economic point of view, would be undertaken. If the tax-exempt feature of municipal securities were removed in exchange for a Federal Government guarantee, municipal securities would thereby lose their chief attraction. Clearly, it is the tax-exempt feature that attracts most investors to State and local government securities, rather than their quality, because those seeking safety pri-

marily can limit their investments to direct obligations of the U.S. Government which entail no credit risk.

A Federal Government guarantee might be used selectively, for example, to help finance urban transit systems. Such a guarantee seems to have been quite successful in other types of projects.

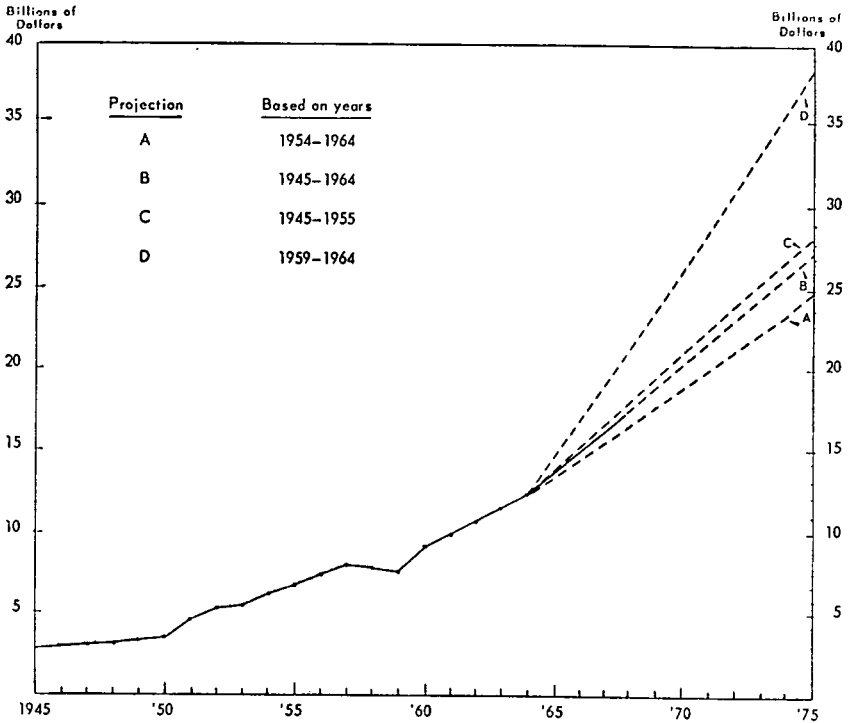
We have referred above to mortgages on homes for the elderly and on nursing homes which have, in effect, a Government guarantee in the form of FHA insurance. This insurance has undoubtedly made it feasible for private capital to go into such projects. So it has been also in the case of housing authority bonds which are for all practical purposes guaranteed by the Federal Government through the Public Housing Administration. In 1964 there were \$4 billion of such bonds held by private investors.<sup>11</sup> It is clear that a substantial but not definitely known amount of these bonds are held by banks for personal trust accounts. Because of the Federal Government guarantee on these bonds they generally yield somewhat less than other local government and agency securities. Strangely, the yields on issues from different parts of the country will vary, despite the guarantee, for probably purely psychological reasons, with investors favoring the better known housing authorities. It would seem reasonable to expect yields on State and local government securities—with no tax exemption and a Federal Government guarantee—to yield about the same as agency issues now guaranteed.

### C. PROSPECTIVE LOANS AND INVESTMENTS

The accompanying chart indicates the amount of State and local government securities held by personal trusts for the years 1945 through 1964 and shows various projections to 1975 based on different periods of years between 1945 and 1965 as set forth on the chart. These projections were made assuming continuance of tax exemption and continuance of the present system of financing State and local government needs. If there should be some significant change in State and local financing such as, for example, a direct allocation by Federal Government of tax revenue back to the several States, the volume of tax-exempt securities might change substantially and all projections based on past experience would be in error.

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<sup>11</sup> "Housing and Home Finance Agency, 1964 report," p. 254.

STATE AND LOCAL GOVERNMENT SECURITIES HELD IN PERSONAL TRUSTS 1945-1964,  
AND PROJECTIONS TO 1975

It will be noted that projections A, B, and C are fairly close together. Projection C, the highest of the three, would indicate holdings of State and local government securities by trust accounts of \$28 billion by 1975. It would seem quite likely that this level, at least, will be attained. The trend for the years 1959 to 1964 produces the highest projection; that is, \$38 billion by 1975. We are inclined to think that by 1975 the holdings of personal trusts should be somewhere between \$28 and \$38 billion, meaning an increase of from \$1.4 to \$2.3 billion per year. The reasons are as follows. In the chapter of this study on individuals as a source of loan funds for State and local governments, data are set forth showing the rapid increase in recent years in the number of taxpayers in the higher income tax brackets. For example, between 1955 and 1963 there was a 91-percent increase in the number of taxpayers in the \$25,000 to \$49,999 income class and a 71-percent increase in the number of taxpayers in the \$50,000 to \$99,999 class. This increase in the number of individuals in the higher income tax brackets will very likely continue and perhaps accelerate. This, of course, will mean that the tax-exempt feature of State and local government bonds will be important to more and more taxpayers.

It is reasonable to assume also that as personal incomes rise and the number of persons in the higher brackets increases there will be an increase in the number of personal trusts created and, therefore, more funds will come under the investment direction of trust departments. Further consideration is that banks will very likely continue and ex-



pand their efforts to attract additional trust business and, as we have indicated above, the growing use of tax-exempt bond funds will enable trust departments to invest efficiently trust funds of the size which cannot be handled economically as separate accounts. The investment of accounts in whole or in part in a tax-exempt bond fund will depend, of course, upon the factors set forth in the section above on portfolio considerations.

We have made no projection for the amount of securities issued by nonprofit organizations which personal trusts may be expected to hold because we have no data on which to base a judgment as to trends and, in any case, the amounts of such securities involved are relatively small.

Since we have been dealing solely with trusts, we have not attempted to assess the present holdings and the trends in agency accounts. Many of these, especially the larger ones, hold large amounts of tax-exempt securities. This reflects not only the fact that the principals are in high income brackets but also that the tax-exempt market, largely a new issue one, is unfamiliar to most individual investors.

CHAPTER 29

**Investments by Nonfinancial Corporations in State and Local Government Obligations\***

Nonfinancial business corporations<sup>1</sup> have in recent years become increasingly significant as suppliers of funds in the short-term money and capital markets. Funds earmarked for expansion of plant and equipment, payment of taxes, acquisition of subsidiaries, etc., which might otherwise remain temporarily idle in companies' bank accounts have been invested in various interest-bearing assets including Federal Government securities, time deposits (including certificates of deposit), commercial and finance company paper and tax-exempt securities of State and local governments ("municipals").

In spite of their tax-exempt status, municipal securities have not been acquired by corporations in substantial amounts in comparison with other liquid investments. However, there has been a general upward trend in corporate holdings of these securities during the post-World War II period from about \$300 million in 1946 to more than \$3½ billion at the end of 1965 (see table I). This upward trend was interrupted in the period from 1960 through 1962 by a decline which appears to be related to changes in the yield structure of the principal money market instruments.

TABLE I.—*Investments by nonfinancial corporations in State and local government obligations (end-of-year estimates, 1946-65)*

[Billions of dollars]

Year	Amount	Year	Amount
1946.....	\$0.3	1956.....	\$1.3
1947.....	.4	1957.....	1.5
1948.....	.4	1958.....	2.0
1949.....	.5	1959.....	2.7
1950.....	.5	1960.....	2.5
1951.....	.6	1961.....	2.4
1952.....	.6	1962.....	2.1
1953.....	.7	1963.....	2.8
1954.....	.9	1964.....	3.1
1955.....	1.2	1965.....	3.6

Source: Securities and Exchange Commission estimates based on Statistics of Income and other data.

The extent to which nonfinancial corporations have used State and local government securities as instruments for investing their short-

\*Prepared by John T. Woodward, Chief, Branch of Financial Reports, Office of Policy Research, Securities and Exchange Commission, with minor editing by committee staff.

<sup>1</sup>The term, "nonfinancial corporations," as used here refers to corporations other than the principal financial intermediaries: banks, insurance companies, savings and loan associations, and investment companies. It includes all other business corporations, some of which are quasi-financial in nature, such as personal and business loan companies, holding companies, and real estate firms.

term funds can be seen by a comparison of the estimated holdings of municipal securities with their total liquid assets<sup>2</sup> (see table II). For example, in 1965 holdings of municipals constituted only 4.1 percent of total liquid assets, as shown in table II, whereas Federal Government issues comprised 19 percent of liquid assets.<sup>3</sup>

TABLE II.—*Relationship of State and local government securities holdings to total liquid assets of nonfinancial corporations (1956-65)*

[Dollar amounts in billions]

Year	Total liquid assets	Investment in State and local government securities	
		Amount	Percent of liquid assets
1956.....	\$59.7	\$1.3	2.3
1957.....	60.2	1.5	2.5
1958.....	63.6	2.0	3.2
1959.....	68.2	2.7	4.0
1960.....	69.0	2.5	3.6
1961.....	72.5	2.4	3.4
1962.....	77.9	2.1	2.7
1963.....	84.4	2.8	3.3
1964.....	84.6	3.1	3.7
1965.....	88.0	3.6	4.1

Source: Quarterly series on Net Working Capital of U.S. Corporations published by the Securities and Exchange Commission. Total liquid assets is the sum of cash, U.S. Government securities, and "other current assets" as presented in the statistical releases for that series.

The rather minor role which State and local government securities have in the liquid investment programs of nonfinancial corporations could be due in part to the maturity structure of municipal obligations. Only about 5 percent of the \$100 billion total of outstanding State and local government debt in 1965 consisted of short-term obligations. The desire of corporate treasurers to maintain liquidity of their investments undoubtedly prompts them to purchase short-term issues or long-term issues which are approaching maturity. Actually, relatively little detailed data are available publicly concerning the types of municipal securities purchased or the companies investing in these securities.

A survey conducted in the summer of 1966 by the Securities and Exchange Commission provides a limited amount of data on municipal holdings for 203 large manufacturing corporations for the period from 1961 to 1965. The results are summarized in table III. For most of the 5-year period, about two-thirds of the State and local government securities held by the 203 corporations had original maturities of less than 1 year.

<sup>2</sup> Figures for total liquid assets used here consist of cash and deposits, Government obligations, and miscellaneous current assets; the latter category includes all other types of marketable investments as well as prepaid items and supplies. The amount representing prepaid items, etc., is not considered to be large enough to affect the conclusions of this study.

<sup>3</sup> Net Working Capital of U.S. Corporations, Securities and Exchange Commission Statistical Release No. 2156.

TABLE III.—*Investments in State and local government securities by selected large manufacturing corporations<sup>1</sup> (1961-65)*

[Amounts in thousands of dollars]

Year	Total		Short term <sup>2</sup>		Long term	
	Amount	Per-cent	Amount	Per-cent	Amount	Per-cent
1961.....	746,795	100	525,892	70.4	220,903	29.6
1962.....	680,969	100	365,414	62.9	215,555	37.1
1963.....	1,100,548	100	757,213	68.8	343,335	31.2
1964.....	1,365,816	100	801,628	58.7	564,188	41.3
1965.....	1,780,215	100	1,141,793	64.1	638,422	35.9

<sup>1</sup> Data are compiled from reports submitted to the Securities and Exchange Commission by 203 manufacturing companies having total assets of \$250 million or more at the end of 1965.

<sup>2</sup> Original maturities less than 1 year.

The survey revealed a rapid growth in corporate holdings of State and local government securities during the 5-year period. Except for the drop in holdings in 1962, investments in municipals by these large manufacturers rose sharply during the period, more than doubling in the 5 years from December 1961 to the end of 1965.

The survey requested data on holdings of State and local government securities at the close of the calendar years from 1961 through 1965. Approximately one-half of the corporations surveyed reported no holdings of municipals on any of these dates. Of course, it is possible that a respondent reporting no holdings of municipals in the survey could have purchased and sold such securities during the same calendar year.

The 102 companies which reported holdings of municipal securities on one or more of the dates specified in the survey were classified into groups based on the proportion of their liquid assets invested in municipals. This distribution is shown in table IV. Among the companies surveyed, the number holding State and local government obligations increased from 70 at the end of 1961 to 85 in December 1965. It is also apparent from these data that a number of companies increased the proportion of their liquid assets which were invested in municipals. In 1961, 17 of the corporations held municipal securities amounting to 10 percent or more of their total liquid assets, whereas in 1965 this number had increased to 32 corporations.

TABLE IV.—*Distribution of 102 manufacturing corporations reporting investments in State and local government securities, by percentage of these investments to total liquid assets (1961-65)*

Year	Total number of corporations <sup>1</sup>	Holdings of State and local government securities as percent of total liquid assets <sup>2</sup>					
		None	0.1-1.9	2.0-4.9	5.0-9.9	10.0-24.9	25.0 and over
1961.....	102	32	14	20	19	10	7
1962.....	102	35	28	10	12	13	4
1963.....	102	20	22	15	22	17	6
1964.....	102	18	27	14	12	21	10
1965.....	102	17	19	17	17	19	13

<sup>1</sup> Covers the 102 corporations—from the survey group of 203 large manufacturing corporations—which reported holdings of State and local government securities at yearend for 1 or more of the years in the period from 1961 to 1965.

<sup>2</sup> "Total liquid assets" represents cash, U.S. Government securities, and miscellaneous current assets (including State and local government securities) at end of year.

The 102 corporations reporting holdings of municipal securities were generally larger companies with a greater volume of liquid assets than the 101 companies holding no municipals. The median asset size of the 102 "municipal investors" was \$650 million—based on total assets at the end of 1965—compared with a median of \$465 million for the companies not holding municipal obligations. The aggregate liquid assets of the corporations investing in municipal securities were almost double those of the other group.

The comparison of liquid assets for the two groups of corporations, shown in table V, also reveals basic differences in the composition of their liquid assets. The firms not holding State and local government securities place a substantially higher proportion of their liquid assets in cash and deposits and U.S. Government obligations and a lower proportion in miscellaneous current assets. This suggests that the firms which purchase municipal securities also are more likely to be investors in commercial and finance company paper, types of assets which are included in the category, "miscellaneous current assets." It should also be noted that the 102 corporations holding municipal securities not only increased the absolute amount of such investments but significantly increased the proportion of their municipals to their total liquid assets—from 6.3 percent in 1961 to 11.4 percent in 1965.

TABLE V.—Liquid assets held by selected large manufacturing corporations,<sup>1</sup> by type of asset (1961-65)

Year	[Dollar amounts in millions]									
	Total		Cash and deposits		U.S. Government securities		Miscellaneous current assets other than State and local government securities		State and local government securities	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
<b>A. CORPORATIONS INVESTING IN STATE AND LOCAL GOVERNMENT SECURITIES</b>										
1961.....	\$11,786	100.0	\$4,084	34.7	\$4,955	42.0	\$2,000	17.0	\$747	6.3
1962.....	12,773	100.0	4,642	36.3	4,874	38.2	2,677	21.0	581	4.5
1963.....	14,419	100.0	5,415	37.6	4,946	34.3	2,957	20.5	1,101	7.6
1964.....	13,800	100.0	5,293	38.4	4,554	33.0	2,588	18.8	1,366	9.9
1965.....	15,555	100.0	5,629	36.2	3,925	25.2	4,220	27.1	1,780	11.4
<b>B. CORPORATIONS WITHOUT INVESTMENTS IN STATE AND LOCAL GOVERNMENT SECURITIES</b>										
1961.....	6,480	100.0	2,811	43.4	2,997	46.2	671	10.4	-----	-----
1962.....	7,472	100.0	3,242	43.4	3,584	48.0	646	8.6	-----	-----
1963.....	8,275	100.0	3,580	43.3	3,800	45.9	595	7.2	-----	-----
1964.....	7,651	100.0	3,841	50.2	2,982	39.0	828	10.8	-----	-----
1965.....	8,700	100.0	4,527	52.0	2,740	31.6	1,426	16.4	-----	-----
<b>C. ALL SELECTED CORPORATIONS</b>										
1961.....	18,265	100.0	6,895	37.7	7,952	43.5	2,671	14.6	747	4.1
1962.....	20,245	100.0	7,884	38.9	8,458	41.8	3,323	16.4	581	2.9
1963.....	22,634	100.0	9,295	41.0	8,746	38.5	3,552	15.7	1,101	4.9
1964.....	21,452	100.0	8,634	40.2	8,036	37.5	3,416	15.9	1,366	6.4
1965.....	24,254	100.0	10,157	41.9	6,671	27.5	5,647	23.3	1,780	7.3

<sup>1</sup> Data are for 203 companies reporting to the Securities and Exchange Commission on investments in State and local government securities at the end of each year shown above. Each of the selected companies had total assets of \$250,000,000 or more at the end of 1965. Of the companies reporting in the survey, 102 reported investments in State and local government securities at 1 or more of the yearend dates. Data for these 102 companies are shown in part A above. Figures for the remaining companies are shown in part B.

The compilation of holdings of State and local government obligations by the 102 "municipal investors" suggests some degree of concentration in these investments by a limited group of companies; further examination reveals that this concentration is even more pronounced than is indicated by the foregoing tables. The 13 companies which reported holdings of municipals equal to 25 percent or more of total liquid assets in 1965 actually held nearly \$1.2 billion of municipals—almost two-thirds of the total reported by the companies surveyed. However, these 13 corporations were not necessarily the largest investors in dollar amounts of holdings. The 10 corporations having the largest amounts of State and local government obligations in 1965 reported a total of \$1.25 billion of such investments.

Data from "Statistics of Income," published by the Internal Revenue Service, provide some indication of the holdings of State and local government obligations by various industry groups. The latest data available are for 1961.<sup>4</sup> These figures somewhat understate the actual amount of investments in municipal securities, since balance sheets submitted with tax forms filed by corporations do not always contain a distinction between Federal Government issues and State and local government obligations. The investments which cannot be allocated to a specific category are included in the "Statistics of Income" publications in the category described as "Government obligations, not stated."

The data from "Statistics of Income" for various industry groupings of nonfinancial corporations are shown in table VI for the years 1958 through 1961. Among nonfinancial corporations, manufacturing firms are clearly the dominant group of investors in State and local government obligations, generally holding more than half of the total. Real estate and holding companies constitute the other principal types of corporations holding substantial amounts of such investments.

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<sup>4</sup>These compilations are based on data representing fiscal periods ending between July of one year and June of the following year, with figures weighted most heavily by companies having fiscal periods ending in December.

TABLE VI.—*Investments in State and local government securities by nonfinancial corporations, by industry (1958-61)*

Industry	1958	1959	1960	1961
A. Dollar amounts (in millions)				
All industries.....	\$1,916	\$2,606	\$2,264	\$2,204
Agriculture, forestry and fisheries.....	16	17	6	7
Mining.....	97	90	141	79
Construction.....	55	47	51	46
Manufacturing.....	951	1,596	1,280	1,217
Transportation, communication and utilities.....	57	81	48	78
Wholesale and retail trade.....	148	161	167	138
Services.....	45	75	69	76
Real estate and other <sup>1</sup> .....	546	540	502	562
B. Percentages for each industry				
All industries.....	100.0	100.0	100.0	100.0
Agriculture, forestry and fisheries.....	.9	.6	.3	.3
Mining.....	5.1	3.4	6.2	3.6
Construction.....	2.9	1.8	2.2	2.1
Manufacturing.....	49.6	61.3	56.5	55.2
Transportation, communication and utilities.....	3.0	3.1	2.1	3.6
Wholesale and retail trade.....	7.7	6.2	7.4	6.3
Services.....	2.4	2.9	3.0	3.5
Real estate and other <sup>1</sup> .....	28.5	24.5	22.8	25.5

<sup>1</sup> Excludes the principal financial intermediaries (banks, insurance companies, savings and loan associations and investment companies) but includes, among other groups, business and personal finance companies and "holding companies."

Source: Statistics of Income, Corporation Income Tax Returns, Internal Revenue Service.

## CHAPTER 30

### Individuals as a Source of Loan Funds\*

#### INTRODUCTION

Most of the financial savings in the United States are owned by households either in the form of claims on financial institutions or in the form of securities and mortgages issued by businesses, governments, and other households. Savings by households that are deposited with financial institutions give rise to a demand for financial assets by these institutions, a process which is called financial intermediation. Individuals thus contribute to State and local debt financing both by direct ownership of State and local securities and as holders of claims on financial institutions which, in turn, may be investors in State and local obligations. Individuals also supply funds to State and local obligations as owners of personal trust funds.

As of the end of 1965, individuals—including personal trust funds and nonprofit institutions—are estimated to have held directly \$40.5 billion of State and local obligations representing 40 percent of the total amount of this type of debt. This compares to other marketable bond holdings by individuals amounting to \$31.1 billion; these consisted of marketable U.S. Government securities and corporate and foreign bonds. At the same time, however, individuals' holdings of corporate stocks were much larger, amounting to about \$670 billion at current market prices, and their holdings of cash, time deposits, and savings bonds totaled \$421 billion. Individuals' direct holdings of mortgages were relatively small, but the exact amount is difficult to estimate. When all these categories of financial assets are taken together as a measure of the individuals' portfolio of financial assets, it appears that State and local obligations accounted for 3.5 percent of the total portfolio.

The above data are taken from the Federal Reserve flow-of-funds accounts where individuals' financial assets are estimated as residuals by deducting institutional holdings from debt and asset aggregates. Direct information on the type of household that owned State and local debt is available from the 1962 Federal Reserve Survey of Financial Characteristics of Consumers. Estimates from this survey do not include the holdings by personal trust funds and by nonprofit institutions. Of the 57.9 million families or unrelated individuals in the United States at the end of 1962, it appears that only 3 percent had direct holdings of marketable bonds of any type and less than 1 percent were holders of State and local obligations. The combination of a relatively low yield and tax-exempt status of income from State and local debt, makes this type of investment attractive to consumer units in high income tax brackets, but not to those in lower brackets.

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\*By Helmut Wendel, Division of Research and Statistics, Board of Governors of the Federal Reserve System, with minor editing by committee staff.



About 88 percent of consumers' direct holdings of State and local securities at the end of 1962 was accounted for by consumer units with total income of \$25,000 and above. Consumer units in that top income bracket made up 1.2 percent of the total number of families and unrelated individuals.

### THE SUPPLY OF FUNDS FROM INDIVIDUALS

At the end of 1962, 79 percent of consumer units held some kind of liquid financial asset, excluding currency; 14 percent had holdings of common stocks; 3 percent reported holdings of marketable bonds; but less than 1 percent had holdings of State and local bonds, a subcategory of marketable bonds. The frequency of State and local bond holdings was 2 percent or below for all consumer income groups up to \$25,000. The frequency of State and local bond investments increased rapidly for the top income groups, with 7 percent in the \$25,000 to \$50,000 income bracket reporting such holdings, 24 percent in the \$50,000 to \$100,000 income bracket, and 67 percent in the income bracket for \$100,000 and over. These and related data are shown in table 1.

Table 2 compares 1962 mean holdings of State and local bonds by consumer units in various income classes with mean holdings of other financial portfolio assets, such as liquid assets, common stock, mutual funds, mortgage assets, and other marketable bonds. For all consumer units taken together, State and local government bonds amounted to 3.1 percent of total financial portfolio assets. For consumer units with incomes below \$15,000, such bond holdings amounted to 0.5 percent of total portfolios. The importance of State and local bonds as a component of the total financial portfolio rose with increasing income up to 12.8 percent for the \$50,000 to \$100,000 income class. For the income group with income above \$100,000, however, the share of State and local obligations declined to 8.0 percent. This top income class invested a much larger percentage of their total portfolios in common stocks than any other income group, and it showed decidedly less preference for all types of fixed income financial assets.

TABLE 1.—Percent of consumer units holding specified assets at end of 1962

	Liquid assets	Common stock	All marketable bonds	State and local bonds
All units.....	79	14	3	(1)
1962 income:				
0 to \$2,999.....	56	6	1	(1)
\$3,000 to \$4,999.....	74	7	1	(1)
\$5,000 to \$7,499.....	86	13	1	(1)
\$7,500 to \$9,999.....	96	15	3	
\$10,000 to \$14,999.....	96	25	6	(1)
\$15,000 to \$24,999.....	100	46	9	
\$25,000 to \$49,999.....	99	78	23	7
\$50,000 to \$99,999.....	100	87	35	24
\$100,000 and over.....	99	96	75	67

<sup>1</sup> Less than 1 percent.

Source: Federal Reserve Survey of Financial Characteristics of Consumers.

TABLE 2A.—Average portfolio of financial assets by consumers in various income classes, yearend, 1962

	Number of units (in millions)	Financial portfolio assets (mean amount (in dollars) for all units in group)						
		Total	Liquid assets <sup>1</sup>	Common stock	Mutual funds	Mortgage assets	Marketable securities other than stocks	
							State and local	Other <sup>2</sup>
All units.....	57.03	7,097	2,675	3,160	424	406	219	213
1962 income:								
Under \$15,000.....	55.17	3,994	2,131	1,200	276	291	18	78
\$15,000 to \$24,999.....	2.02	21,826	8,824	8,830	1,297	1,877	262	736
\$25,000 to \$49,999.....	.53	94,961	20,404	61,239	5,098	1,558	3,701	2,961
\$50,000 to \$99,999.....	.16	270,270	37,298	149,615	7,862	14,128	34,722	26,645
\$100,000 and over.....	.04	1,104,971	59,382	862,712	65,252	12,258	87,997	17,370

<sup>1</sup> Includes demand deposits, time deposits and savings accounts, and U.S. savings bonds.

<sup>2</sup> Consists of marketable securities other than stocks issued by the U.S. Government, corporations, and foreign governments.

Source: Federal Reserve Survey of Financial Characteristics of Consumers.

TABLE 2B.—*State and local obligations, share of total financial portfolio and distribution by income classes*

	State and local obligations		
	Mean amount	Share of total financial portfolio	Share of total consumer holdings
All units.....	219	3.1	100.0
1962 income:			
Under \$15,000.....	18	.5	7.6
\$15,000 to \$24,999.....	262	1.2	4.2
\$25,000 to \$49,999.....	3,701	3.9	15.5
\$50,000 to \$99,999.....	34,722	12.8	43.5
\$100,000 and over.....	87,997	8.0	29.2

Source: Table 2A.

The survey results suggest that investments in State and local securities have generally not been attractive to families earning less than \$25,000 a year. Data on tax rates and interest returns confirm that such families tended to have only moderate incentive, or no incentive at all, in terms of after-tax yield comparisons to purchase State and local obligations. Individual taxpayers reporting adjusted gross income between \$20,000 and \$25,000 in 1962,<sup>1</sup> most commonly were subject to a marginal Federal income tax rate of 34 percent (see table 3). More specifically, 80 percent of such taxpayers were subject to either a 34 percent or a 30 percent marginal income tax rate. During 1962, the yield on State and local AAA bonds was 3.03 percent and the yield on AAA corporate bonds averaged 4.33 percent. For a person with a marginal tax rate of 30 percent, this State and local yield would be equivalent to a yield of 4.33 percent in taxable income, while for a marginal tax rate of 34 percent, the comparable taxable yield amounted to 4.59 percent. Individuals in these tax brackets thus received either a moderately higher or the same tax adjusted yield from an investment in State and local obligations as from a corporate bond investment.

<sup>1</sup> Adjusted gross income differs in a number of respects from income before taxes as tabulated in the Survey of Financial Characteristics of Consumers. Realized income from capital gains is not included in the survey income data here, but it is partially included in adjusted gross income with long-term capital gains measured at 50 percent of their dollar amount. Various forms of nontaxable incomes are included in the survey concept, but are excluded from adjusted gross income: these are the tax-exempt income from State and local bonds, a \$50 dividend credit for tax computations, and various types of social security benefits.

TABLE 3.—*Individual taxpayers by adjusted gross income classes and marginal Federal income tax rates, 1962*

[Percent paying marginal rate]

	Adjusted gross income			
	\$20,000 to \$24,999	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 and over
Marginal Federal income tax rate:				
34 percent and less.....	84.3	14.1	2.3	6.4
36 to 50 percent.....	11.8	69.8	10.2	9.1
52 to 59 percent.....	3.8	12.4	45.0	7.1
62 to 69 percent.....		3.3	37.3	23.6
71 to 91 percent.....			4.4	53.4
Unclassified.....	.1	.4	.8	.4
All.....	100.0	100.0	100.0	100.0

Source: U.S. Treasury Department, Internal Revenue Service, "Statistics of Income," 1962, table 20.

Table 3 shows that the tax incentive for holding State and local securities was quite different for taxpayers with adjusted gross income in excess of \$25,000. Thus, 70 percent of taxpayers with adjusted gross incomes between \$25,000 and \$50,000 paid marginal tax rates ranging from 36 to 50 percent. About 82 percent of taxpayers with adjusted gross incomes between \$50,000 and \$100,000 paid marginal Federal tax rates ranging from 52 to 69 percent. And 53 percent of taxpayers with adjusted gross incomes exceeding \$100,000 paid marginal tax rates between 71 and 91 percent.

The prevalence of these high marginal tax rates for income earners above \$25,000 under the individual income tax rate schedules that existed from 1954 to 1963 suggests that there was a sizable potential market for State and local bonds among individuals which may not have been fully tapped due to the diversity of State and local securities and the resulting specialization that is required for expert investment choices. Another factor that limits the demand for State and local bonds by individuals is a desire for assets with potential capital appreciation such as common stocks. Capital appreciation postpones or reduces tax bills and may be desired as a hedge against inflation.

In appraising the financial portfolio composition by high-income recipients, the variability of a family's income from year to year also should be considered. During any 1 year, reported income may be high by previous standards or in terms of expected future income. To the extent that high tax rates are not experienced continuously, the demand for State and local obligations will be reduced.

Individuals' tax rates were reduced by the Internal Revenue Act of 1964, and income to which a marginal tax rate of 50 percent applied earlier would now be subject to a 42-percent marginal tax rate. Income with a 72-percent marginal tax rate earlier would now be subject to a 60-percent rate, and the top rate of 91 percent has now been reduced to a top marginal rate of 70 percent. Despite this reduction in tax rates, the comparative after-tax yield advantage of State and local bonds continues to be strong for top-income earners. In 1965, Aaa State and local bonds on average had a yield of 3.16 percent, and for investors that paid a 60-percent marginal tax rate this would be equivalent in after-tax income to a yield of 7.90 percent on an instrument earning taxable income. During 1965, the yield on corporate

Aaa bonds was 4.49 percent and on U.S. Government long-term bonds 4.21 percent. (See table 4.)

The judgment is sometimes expressed that State and local government bond investments are especially attractive to affluent individuals in the upper age brackets, since they might want to reduce their investment in a personal business venture and since long-term capital appreciation prospects on growth stocks might be beyond their planning horizons. The 1962 Survey of Financial Characteristics of Consumers provides some evidence in favor of this hypothesis. When consumer units are grouped by wealth brackets and age groups, units headed by a person of 65 years or above reported holdings of State and local obligations more frequently than consumer units headed by a person younger than 65 years. More frequent holdings of State and local bonds for older investors were found among consumer units with wealth holdings between \$200,000 and \$500,000 and also for units with wealth exceeding \$500,000.<sup>2</sup> Units reporting wealth holdings of less than \$200,000 reported small frequencies of holdings of State and local obligations in all age brackets.

TABLE 4.—Average annual yield on selected types of financial investments and tax advantage of State and local bonds

	Yields					Marginal income tax rate that equalizes yield, State and local bonds and—	
	AAA State and local bonds	AAA corporate bonds	U.S. Government long-term bonds	Time and savings accounts			
				Commercial banks	Savings and loan associations		
1946.....	1.10	2.53	2.19	0.84	2.4	56.5	54.2
1947.....	1.45	2.61	2.25	.87	2.3	44.4	37.0
1948.....	1.87	2.82	2.44	.90	2.3	33.7	18.7
1949.....	1.65	2.66	2.31	.91	2.3	38.0	28.3
1950.....	1.56	2.62	2.32	.94	2.5	40.5	37.6
1951.....	1.61	2.86	2.57	1.03	2.6	43.7	38.1
1952.....	1.80	2.96	2.68	1.15	2.7	39.2	33.3
1953.....	2.31	3.20	2.94	1.24	2.8	27.8	17.5
1954.....	2.04	2.90	2.55	1.32	2.9	29.7	29.7
1955.....	2.18	3.06	2.84	1.38	2.9	28.8	24.8
1956.....	2.51	3.36	3.08	1.58	3.0	25.3	16.3
1957.....	3.10	3.89	3.47	2.08	3.3	20.3	6.1
1958.....	2.92	3.79	3.43	2.21	3.38	23.0	13.6
1959.....	3.35	4.38	4.07	2.36	3.53	23.5	5.1
1960.....	3.26	4.41	4.01	2.56	3.86	26.1	15.5
1961.....	3.27	4.35	3.90	2.76	3.90	24.8	16.2
1962.....	3.03	4.33	3.95	3.14	4.08	30.0	25.7
1963.....	3.06	4.26	4.00	3.33	4.17	28.2	26.6
1964.....	3.09	4.40	4.15	3.47	4.19	29.8	26.3
1965.....	3.16	4.49	4.21	(1)	(1)	29.6	(1)

<sup>1</sup> Not available.

Source: Board of Governors of the Federal Reserve System and "Savings and Loan Fact Book."

Information on the annual savings flow of individuals into State and local obligations is available only from estimates which start out with total net issues of State and local securities and deduct the takings by various institutional groups. The residual takings are attributed to a sector that includes households, personal trust funds and nonprofit

<sup>2</sup> Units with more than \$500,000 of wealth, however, reported about the same amount of mean holdings of State and local bonds whether they were headed by a person of 65 years or above or by a person in the 55- to 64-year ago group. Mean holdings dropped sharply for units headed by a person younger than 55 years.

institutions. Table 5 shows the annual net acquisitions of State and local obligations by this household and nonprofit sector from 1946 to 1965, and these net acquisitions are compared with other net investments in financial portfolio assets by the sector.

Table 6 presents a summary of the average annual household investment flow into various types of financial assets, classified by three time spans: 1946-51, 1952-61, 1962-65. The first period would appear to have been the least favorable to investments in State and local obligations by individuals, since individual income tax rates were somewhat lower than in the 1954-63 period and considerably lower than in the 1952-53 period.<sup>3</sup> Also, State and local bond yields tended to be lower relative to yields on corporate bonds and savings shares in the early post-war years than they were later in the 1950's. In addition, fear of inflation may have restrained the investment by individuals in all types of fixed income yielding financial assets.

During the 1946-51 period, the average annual investment in State and local bonds by individuals amounted to \$0.5 billion, which represented 0.2 percent of personal income and 6 percent of the total financial portfolio investment by the household and nonprofit sector.

TABLE 5.—*Estimated net financial portfolio investments by the household and nonprofit sector, 1946-65*

[In billions of dollars]

	Total <sup>1</sup>	State and local obligations	Corporate and foreign bonds	Corporate stock	Market-able Federal securities	U.S. Savings bonds	Time deposits and savings accounts	Demand deposits and currency
1946.....	10.0	-0.2	-0.9	1.1	-2.5	1.2	6.3	4.2
1947.....	6.1	.4	-.4	1.1	-.3	2.1	3.4	-.8
1948.....	3.2	1.0	.3	1.0	-1.5	1.6	2.3	-2.0
1949.....	3.8	.5	.5	.8	-.5	1.5	2.6	-1.9
1950.....	6.1	.3	.4	.7	-.6	.3	2.5	2.1
1951.....	10.5	.4	1.6	1.5	-.5	-.5	4.5	3.3
1952.....	12.1	1.1	.1	1.5	-.6	.1	7.7	2.0
1953.....	12.3	1.6	( <sup>2</sup> )	1.0	-1.8	2.0	8.3	.7
1954.....	10.6	.8	-.4	.7	-2.0	.6	9.2	1.4
1955.....	15.7	1.7	1.0	1.1	2.1	.3	8.8	.5
1956.....	16.6	1.6	.9	2.0	1.3	-.1	9.5	1.0
1957.....	16.4	2.0	1.1	1.5	1.8	-1.9	12.1	-1.2
1958.....	17.2	.9	.7	1.5	-1.8	-.5	14.0	1.7
1959.....	20.5	1.7	.1	.8	6.6	-1.8	11.4	1.8
1960.....	12.6	1.8	-.1	-.3	-.2	-.3	12.4	-.9
1961.....	18.9	1.1	-.2	.4	-1.3	.8	17.4	.8
1962.....	25.8	.4	-.9	-1.6	( <sup>2</sup> )	.4	23.4	4.1
1963.....	29.5	1.6	-.5	-2.9	2.5	1.2	23.0	5.3
1964.....	34.8	2.6	-.7	-.6	1.2	.9	23.9	7.4
1965.....	38.9	3.7	-.8	-2.1	2.4	.6	24.6	10.7

<sup>1</sup> Includes investments in mortgages, not shown separately.

<sup>2</sup> Less than \$50 million.

Source: Federal Reserve flow-of-fund accounts as of November 1965 (except 1965 data)

<sup>3</sup> Richard Goode, "The Individual Income Tax," Washington, D.C., Brookings Institution, 1964, p. 325.

TABLE 6.—*Net financial portfolio investments by household and nonprofit sector, 1946-65, by selected periods*

	Total <sup>1</sup>	State and local obligations	Corporate and foreign bonds	Corporate stocks	Marketable Federal securities	Liquid assets <sup>2</sup>	Share of State and local investment (percent of total)
Average annual amounts (in billions of dollars)							
1946 to 1951.....	8.0	.5	.3	1.2	-1.2	6.5	6
1952 to 1961.....	15.3	1.4	.3	1.0	.4	11.8	9
1962 to 1965.....	32.2	2.1	-.7	-1.8	1.5	31.4	7
As percentages of personal income during period							
1946 to 1951.....	3.1	.2	.1	.5	-.5	2.6	-----
1952 to 1961.....	4.5	.4	.1	.3	.1	3.5	-----
1962 to 1965.....	6.7	.4	-.2	-.4	.3	6.5	-----

<sup>1</sup> Includes investments in mortgages, not shown separately.

<sup>2</sup> Consists of time deposits and savings accounts, U.S. savings bonds and demand deposits and currency.

Source: Table 5.

During the 10-year span from 1952 to 1961, the average annual net investment in State and local obligations by individuals rose to \$1.4 billion, representing 0.4 percent of personal income. During these years, yields on State and local government obligations rose relative to corporate bond yields and yields on savings and loan accounts. Higher personal income tax rates, improved after-tax equivalent yields on State and local obligations relative to alternative investments, and the larger share of personal income that was used for net investments in financial portfolio assets by individuals, all can be cited as factors contributing to the larger takings of State and local obligations. During this period State and local investments captured 9 percent of the total portfolio investments by individuals.

The investment flow varied considerably from year to year. The years during which cyclical troughs in economic activity occurred, 1954, 1958, and 1961 all showed below-average investments. In 1954 and 1958, yields on State and local AAA bonds declined, and they declined somewhat more than corporate AAA bond yields. This was not the case in 1961, however. During all of the 3 trough years, yields on savings shares and time deposits continued to trend upward. It would seem that individuals reduced their takings of State and local obligations during the recession years, expecting more favorable yields at a later time. It is known that financial institutions which experienced an increased availability of funds during these years, supplied larger amounts of investments to the State and local securities market. The annual investment pattern into State and local obligations by individuals may also have reflected cyclical changes in income flows to individuals in the upper tax brackets.

In the 1962-65 period, individuals on average invested \$2.1 billion annually in State and local obligations, which represented again 0.4 percent of personal income but only 7 percent of the total net investment in financial portfolio assets. In 1962, when rate ceilings on time deposits were lifted commercial banks experienced a large inflow of

such deposits and they increased their holdings of State and local obligations considerably. As a result State and local yields declined in 1962 and direct individuals' investments in State and local obligations amounted to only \$0.4 billion. Again it seems that declining yields caused individuals to reduce their investments in these obligations. Individuals also experienced net losses in stock market trading during 1962; but it is not known whether this affected their taking of State and local obligations. With yields on State and local bonds rising moderately in the subsequent 3 years, individuals increased their net acquisitions of State and local obligations considerably during each year. The 1964 and 1965 estimates on individuals' net acquisitions of State and local obligations amount to \$2.6 and \$3.7 billion, respectively. This does not indicate any lessened demand for State and local security holdings as a result of the individuals' income tax reduction in 1964.

Investments in State and local obligations accounted for 6 to 9 percent of total financial portfolio investments by individuals during the three postwar subperiods shown in table 6, but the share of State and local obligations in the total market value of individuals' financial portfolios was a much smaller percentage. Capital appreciation on corporate stockholdings was an important factor in increasing the total market value of individuals' financial portfolios. State and local obligations appear to have accounted for 4.9 percent of total financial portfolio holdings at the end of 1945 and for 3.5 percent at the end of 1965.

#### PROSPECTIVE INVESTMENTS

The investment behavior of individuals during the postwar period indicates that investment flows respond to changes in yields among alternative financial assets. This sensitivity can be detected in year-to-year changes in the allocation of individual saving and it probably would be magnified if yield advantages among different investment outlets were to alter over a prolonged period of time. The volume of demand for State and local obligations among individuals over the next 10 years thus is subject to considerable flexibility depending on absolute and relative yield levels, individual income tax rates, and the extent of fear of inflation among investors. Demand conditions by individuals for State and local bonds, in turn, will continue to have an important bearing on the behavior of market yields for State and local securities.

If the following assumptions remain applicable, the demand for State and local security holdings by individuals is likely to expand considerably; but it would be quite hazardous to project specific quantitative estimates:

- (1) State and local securities maintain the relative position in the yield structure for financial instruments which they have had in recent years, and their income remains tax exempt.
- (2) Individual income tax rates are not significantly reduced.
- (3) Inflation psychology does not pervade the capital markets.

Under these assumptions, the demand for net purchases of State and local securities by individuals would be sustained by the large annual flow of individuals' savings into financial investments and by the rapid increase that can be expected in the number of taxpayers



in high income brackets as the general level of per capita income rises.

From 1955 to 1963, the latest year for which Statistics of Income by the U.S. Internal Revenue Service are available, the number of taxpayers with adjusted gross income in excess of \$100,000 rose by 35 percent, the number in the \$50,000-to-\$100,000 bracket rose by 71 percent, and the number reported in the \$25,000-to-\$50,000 bracket rose by 91 percent. As is shown in table 7, two of these rates of growth are substantially higher than the increase in total personal income during this timespan, which amounted to 50 percent. Future growth in personal income is again likely to be accompanied by large increases in the number of families in these high income brackets. If other factors remain constant, this should enlarge considerably the market for State and local government obligations among individuals.

TABLE 7.—Number of tax returns in top adjusted gross income brackets, 1955 and 1963

Adjusted gross income classes	Number of Federal tax returns		Percent change 1955-63
	1955	1963	
	<i>Thousands</i>	<i>Thousands</i>	
\$25,000 to \$49,999.....	311.3	594.6	91
\$50,000 to \$99,999.....	77.6	132.4	71
\$100,000 and over.....	21.8	29.5	35
Memo:	<i>Billions</i>	<i>Billions</i>	
Personal income.....	310.9	464.8	50
Yearend holdings of State and local securities of household and nonprofit sector.....	23.0	34.0	48

Source: Statistics of Income, 1963.

