# JOINT COMMITTEE PRINT

# THE CHANGING ECONOMICS OF AGRICUL-TURE: CHALLENGE AND PREPARATION FOR THE 1980's

# A STAFF STUDY

### PREPARED FOR THE USE OF THE

# SUBCOMMITTEE ON AGRICULTURE AND TRANSPORTATION

OF THE

# JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES



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### LETTER OF TRANSMITTAL

**DECEMBER** 22, 1982.

Hon. HENRY S. REUSS,

Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR MR. CHAIRMAN: Transmitted herewith for the use of the members of the Subcommittee on Agriculture and Transportation, the full Joint Economic Committee, the Congress, and the public at large is a staff study on "The Changing Economics of Agriculture: Challenge and Preparation for the 1980's." This staff study draws extensively from 10 hearings conducted by the Subcommittee during the winter of 1981-82 and independent staff research. The study was prepared by Dr. Robert J. Tosterud, Joint Economic Committee staff economist and Dale Jahr, the economist on my personal staff. They were assisted by Dawn Delves, who typed the manuscript.

The study traces the economic development of U.S. agriculture over the last 25 years, documents its current economic condition and provides professional judgments on its future economic prospects. There is an immediate need to re-evaluate traditional farm policy in recognition of international economic developments and challenges to the United States in agricultural export markets.

Sincerely,

JAMES ABDNOR, Chairman, Subcommittee on Agriculture and Transportation.

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### FOREWORD

### By Senator James Abdnor\*

In March 1982 the Subcommittee on Agriculture and Transportation of the Joint Economic Committee initiated a series of six hearings on the topic "The Changing Economics of Agriculture: Review, Evaluation, and Future Directions." Four former secretaries of agriculture appeared together to inaugurate the series and to share their expertise which influenced three decades of federal leadership. Agriculture Secretary John Block appeared before the subcommittee at its second hearing. Panels of agricultural economists, farm journalists and broadcasters and agricultural product export promotion groups offered their insights in the final four hearings. The purpose of this series was to (1) professionally display and explore agriculture's economic contributions, problems and potential, (2) address the issue and implications of the changing structure of U.S. agriculture, and (3) develop recommendations for a program for agricultural economic recovery and sustained future growth.

This staff study provides a useful historical perspective into the "farm problem," analyzes the current economic condition of U.S. agriculture and its changing relationship to the general economy; and, with the aid of insights gained from our expert witnesses and other contributors, develops and presents findings regarding future directions in the economic policies of agriculture.

Twenty-five years ago, the Subcommittee on Agricultural Policy of the Joint Economic Committee conducted a study called "Policy for Commercial Agriculture." This study was performed in accordance with instructions contained in the Joint Economic Committee's report of the January 1957 Economic Report of the President. Sixty specialists from universities, government, national farm organizations, and elsewhere were invited to write papers on assigned subjects and appear before the subcommittee at hearings. The purpose of the study was to seek "\* \* \* a clearer understanding of the nature of the farm problem, its underlying causes, prospects for the future, and the strengths and limitations of alternative means of dealing with it." From this exercise the subcommittee concluded, "If not corrected, the failure of demand for farm products to expand as rapidly as farm productivity, together with other factors, is likely to exert strong pressures toward persistent surpluses of farm products, fewer opportunities in farming, a need for important adjustments in individual farm operations, and generally not favorable income in commercial agriculture." That prediction became a reality in the 1960's. Except for an interlude in the mid-1970's when farmers prospered from a booming domestic demand

<sup>\*</sup> Senator Abdnor is Chairman of the Subcommittee on Agriculture and Transportation, Joint Economic Committee.

and increased foreign demand, the prevailing economic condition of agriculture resembles that foreseen in 1957.

The Subcommittee on Agricultural Policy of the Joint Economic Committee perceived the "farm problem" as essentially one of farm productivity outpacing demand. Its recommendation was therefore to implement more effective supply control measures. It is important to remember that the Subcommittee was addressing an agricultural industry that was producing almost entirely for a domestic market—a market that had known demand limitations and one that could effectively be isolated and protected, if necessary. The challenge, in essence, was to effectively regulate supply. The Subcommittee did not, and could not, evision a large commercial export market for U.S. grown food. To the very limited extent the 1958 Subcommittee addressed demand expansion in foreign markets, it was in terms of donations and dumping-type tactics which give "due regard for the interests of other exporting nations."

Today, the U.S. farmer—particularly the grain farmer—is producing for the world market and therefore is but a contributor to world food supplies. Within this world context, unilateral U.S. efforts to influence, let alone control world supplies are ineffectual and may, in fact, be counterproductive to longer-term U.S. economic interests.

After ten years of unprecedented growth, U.S. agriculture finds itself again financially strapped with no improvement in sight. Prices, income levels and returns on investment and labor over the past three years suggest to U.S. farmers that they should quit, give up, retreat; the products of their efforts are of little value. The world appears to be coaxing the American farmer to desert his tractor. The last thing the American farmer needs at this time is a defeatist attitude. Further, there is great concern that traditional production controls and price supports will not solve today's farm income problem, and certainly not tomorrow's.

The present challenge to the farming community, the United States, world consumers, and Congress is to design and implement an international farm policy for the United States. Fundamentally, this policy must recognize and effectively address the extreme internationalization of American agriculture, and the realities of the market in which it must compete. A sizable portion of private and public investment during the last ten years in food production, processing, marketing, merchandising and transportation has been in direct response to meeting foreign demand. Private sector enterprises including millions of farmers, have spent billions of hardearned dollars to capture and retain foreign markets.

U.S. food production and delivery systems are the envy of the world, and for the first time in the history of mankind a country stands poised to produce and deliver food in proportion to the needs of the world's hungry—if we will only let it. To turn tail at this juncture would violate every moral, social, political and economic principle of our democratic heritage. A comprehensive U.S. international farm policy must declare to the world that America is ready, willing, and able to pursue this historic obligation and opportunity. A bold policy can effectively send a message to our competitors that, rather than retreat and yield foreign market territory, U.S. agriculture intends to aggressively advance on all market fronts.

Such a policy must also incorporate another signal in another direction toward U.S. farmers. They too have an obligation, not only to U.S. consumers and taxpayers, but to future generations of farmers. Current farm policy sets artificial price supports which may be producing undesirable long-term consequences and promise nothing but ever increasing dependence of the farmer on the eroding benevolence of government.

The United States is at a pivotal point in this nation's agricultural history. As the cornerstone of the entire economy, future growth and prosperity for all Americans are at stake. Clearly, our traditional approach of attempting to increase prices by unilaterally reducing acreage and accumulating supplies has been counterproductive, too costly and futile. Domestic efforts are immediately offset by other exporting countries which are eagerly increasing their acreage. It is time to implement a new era of agricultural policy an ambitious, agressive, international farm policy which has as its foundation the most powerful partnership—the unmatched productivity of the American farmer and the economic strength and ingenuity of our representative government.

The immediate, central problem is the existance of price-depressing surplus grain stocks. For example, USDA projects 1982/83 wheat ending stocks at over 1.4 billion bushels. According to USDA a desirable, safe, and price-enhancing level of wheat ending stocks is somewhere between 900 million and 1 billion bushels. Therefore, the goal is to rid ourselves of about 450 million bushels. This can be accomplished by reducing production and/or increasing exports. The fastest way to reduce surplus grain stocks is, of course, to increase exports while reducing production. Clearly, there will be no improvement in ending stocks if our success at reducing production is offset by our failure to at least maintain our exports. Following three consecutive years of record-breaking low net income we must "bite the bullet" now, this year. A 2- or 3-year transitionary period of stock adjustment would be but a slow, painful economic death for more thousands of farmers.

Our goal is evident. In the case of wheat, an 8-percent reduction in output next year—225 million bushels—coupled with a 13-percent increase in wheat exports—225 million bushels—will eliminate burdensome wheat stocks in 1 year. But how do we accomplish such a goal? The initial obligation

But how do we accomplish such a goal? The initial obligation rests with grain farmers to significantly reduce production. Another recordbreaking grain crop in 1983 will be a clear signal to the federal government and the public that even the most attractive supply control programs are futile and it will most assuredly be concluded that grain farmers, in aggregate, are simply not interested in effectively constraining production. Poor compliance in the 1983 farm program could well sound the death knell to any further publicly funded initiatives to assist farmers in reducing their production. It would be extremely difficult for farm advocates to argue for a "sweetening of the pot" for a 1984 program.

Farmers need to be made aware that government benevolence and patience is quickly eroding in addition to its capacity to provide publicly financed support. But government leaders need to understand that farmers have little if any confidence in the theory that in the short run the market place will reward their sacrifice in output.

One possible solution to this dilemma is for the government to commit itself to expanding exports in direct proportion to the reduction in grain output—a bushel for bushel match. This quid-proquo federal commitment may prove to be far more effective in convincing farmers to reduce production than any marginal changes in loan rates, target prices or paid diversion program. In essence, farmers would be assured that for every bushel not grown an additional bushel would be sold in the world market. Grain farmers, through their production decisions, would set the export target and the challenge for the government. The success or failure of the program is entirely in the hands of farmers.

To finance this federal export effort, consideration should be given to establishing a foreign sales promotion fund which would be equivalent in size to payments received by farmers under the 1983 paid land diversion program. There should be an equal effort to promote sales as to promote reductions in output.

We are at a pivotal point in U.S. agricultural history. Unilaterally reducing production while our exports are declining is the road to U.S. agricultural oblivion.

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### THE CHANGING ECONOMICS OF AGRICULTURE: CHALLENGE AND PREPARATION FOR THE 1980's

### By Dr. Robert Tosterud and Dale Jahr\*

### I. HISTORICAL PERSPECTIVE

For the better part of two centuries "dirt farmers" were instrumental in setting the economic and political agendas of this country. Only since the 1920 census have urban residents outnumbered rural residents. In fact, the production of food and fiber beyond subsistence levels made industrialization and urbanization possible. It should not be an incidental note in world history that the most food productive land on the face of the earth was placed in the hands of the most capable, enterprising and innovative individuals. The third essential ingredient was that these individuals were provided an economic system which rewarded initiative, hard work and risk-taking. The American farmers' phenomenal success set the standard for industrial achievement, created the potential for diverting human resources into new capabilities, and fostered the confidence and desire to attain greatness.

During the second century of American history farmers took full advantage of their dominant status and pursued on every front their economic, political and social interests. The emerging and growing nation, still proud and respectful of its agrarian heritage, was more than eager to accommodate. Unique institutions were established to serve the needs of agriculture, including a cabinet level Department of Agriculture, a land grant college system including its network of agricultural experiment stations and extension services, rural electrification and telephone administrations, a farm credit system, bureaus to address reclamation problems and public road construction, and dozens of others. In addition, countless legal preferences and exemptions in the interest of agriculture: priority rights to land and water, the Homestead Act, price and income supports, subsidized credit, and exemptions from federal taxes, including Social Security, child labor laws, price controls, anti-trust laws for their cooperatively-owned businesses, and even the military draft.

The political strength, to a significant extent, and supporting public sentiment bestowed upon the agricultural community can be attributed to its perceived uniqueness and worthiness and its actual economic prominence. Professor Don Paarlberg of Purdue University wrote an "Agricultural Creed" that aptly describes the public infatuation with farming:

<sup>\*</sup> Dr. Tosterud is an economist on the Joint Economic Committee. Mr. Jahr is an economist on the staff of Senator James Abdnor.

Farmers are good citizens and a high percentage of our population should be on farms.

Farming is not only a business but a way of life.

Farming should be a family enterprise.

The land should be owned by the man who tills it.

It is good to "make two blades of grass grow where only one grew before."

Anyone who wants to farm should be free to do so.

A farmer should be his own boss.

While it is difficult to say when this creed became more patronizing rehetoric then gospel, its message depicted a full century of public attitude.

The agricultural sector experienced its most prolonged period of prosperity from about 1910 until 1930. World War I created a pronounced world demand for food and the general U.S. economic expansion that followed the war sustained the vitality of the agricultural sector. However, as America's demography changed, agriculture's prominence began to wane. Agriculture's power base eroded and with it its perceived uniqueness and worthiness.

Certainly the Great Depression contributed to the disruption and alteration of established social, economic and political structures. The severity of the economic collapse affected all sectors of the economy. With such widespread suffering and sacrifice, little sympathy or recognition was given to a rural society, whose thinspread and remote population represented a minority of Americans. From 1929 to 1933 net farm income fell by 50 percent. Simultaneously, and making matters worse, the number of people living on farms actually increased by almost 2 million. During this era agriculture was hardly a business and certainly not a profitable one; it was more of a way to live than a way of life.

The depression's stranglehold on the farm sector caused a setback which required a decade for recovery. Land ownership and management and capital formation were substantially disrupted and the industry lacked investment for rebuilding in the absence of a strong macroeconomy. Dr. Paarlberg in his book, "American Farm Policy," assessed this condition in the following way:

The Great Depression often hurt the good farmers more than the poor ones, chiefly because the poor ones had little to lose. The good farmers had generally adopted progressive practices that involved a heavy cash outlay for goods and services: fertilizer, fuel, power machinery, and the like. They had adopted the practices recommended by the extension service. Frequently these better farms were leveraged and had substantial charges for debt service. This meant high and continued cash costs, difficult to meet when receipts fell. The farmers that went broke generally were the venturesome ones who had obligated themselves for large cash outlays.

The "noble farmer" showed his extreme vulnerability as a businessman, not unlike countless other entrepreneurs at the time.

Farmers joined with their blue-collar contemporaries and marched on Washington. President Roosevelt attempted to improve the farm economy by implementing the Agricultural Adjustment Act in 1933. This action ushered in the use of widescale government involvement in the market economy. It began the age of the "Commodity Program" comprised mainly of price support mechanisms and production controls, the structure of which is still employed today. Roosevelt referred to the Act as "a new and untrod path" and a "trial of new means" to deal with—at that time—an unprecedented agricultural condition.

Farm net income more than tripled during World War II, rising from \$5 billion in 1940 to \$15.1 billion in 1946, while the farm population declined by over five million. Because of the economic gains, the original rationale for the commodity programs—to support prices and restrain production—lost its validity. In fact, farm programs were employed during World War II to encourage farmers to increase their output parity support was a further production enhancement.

Post World War II food shortages in Europe and Asia, the Korean War and the Steagall Amendment held farm prices in the United States up to acceptable levels until 1953. Twelve years of prosperity (1941 to 1952) diminished the memory of the preceding decade and many farmers and their spokesmen believed that depressions were a thing of the past. However, cries for the government to get out of agriculture faded quickly as farm net income fell from almost \$16 billion in 1951 to \$13 billion in 1953 to \$11.1 billion in 1957. Agricultural statisticians accented the farmers' renewed fears: in constant dollar terms their 1957 net income was equivalent to their earnings during the Great Depression. What had gone wrong?

In response to the reeling farm economy, the Congress postured itself for political action. The Joint Economic Committee at this time began its ambitious endeavor to reveal the causes of, and to recommend a solution for, the farm problem.

### II. REVIEW OF THE FINDINGS AND RECOMMENDATIONS OF THE "POLICY FOR COMMERCIAL AGRICULTURE" REPORT

Characteristic of the farm sector, there were as many opinions about the causes of the "farm problem" in the 1950's and 1960's as there were farmers. Depending on the source, government programs were welfare handouts or incentive instruments; impediments to foreign trade were restricting farm exports or holding domestic food prices down; export promotion activities benefitted farmers by increasing sales or hurt farmers by adding to costs; the financial sector made farmers compete for loanable funds amongst a host of borrowers or the manufacturing sector was usurping credit resources away from the farm sector; large-scale operations were an economic response to a changing technology or threatened the very existence of the family farm. In addition, topics such as political philosophy, agricultural imports, domestic surpluses and farm management practices were subject to widely varying views.

The Subcommittee on Agricultural Policy of the Joint Economic Committee made a historic contribution to this debate in 1957-58. The Subcommittee's report, "Policy For Commercial Agriculture, Its Relation to Economic Growth and Stability," identified several important factors contributing to the farm problem:

(1) Rising productivity and shifting demands that characterize economic growth and development in the United States and subject agriculture to persistent strains;

(2) Farm income is highly vulnerable to the impact of rapid technological advance;

(3) Because of agriculture's heterogeneous structure (variety of commodities produced, extremes in farm sizes, incomes and ownership patterns, etc.), the farm income problem varies widely by circumstances and defies singular solution;

(4) Average rates of return on family labor and investment in commercial agriculture are low in comparison to other industries;

(5) An imbalance exists between farm production and market outlets;

(6) Farm production surpluses will pervade for a decade unless new uses for agricultural commodities surface; and

(7) Increases in farm size and changes in optimal farm organization severely strain the farmer's ability to adjust to market and weather forces, thereby creating unstable farm income.

Sixty contributors and witnesses presented their views in 1957. After analyzing these proposals, the JEC Agricultural Policy Subcommittee condensed their recommendations into four general categories. To solve a very complex farm problem, their advice was the following: (1) To expand outlets for farm resources by developing new industrial uses for products, expanding commercial markets abroad and donating food and fiber products to needy nations.

(2) To assist the normal flow of farm family members into other occupations; to promote programs that develop local nonfarm resources; to improve the education of farm people and train them in industrial skills and remove other obstacles to mobility.

(3) To assist farm families with making on-farm adjustments. The government should provide financial assistance to smaller farmers "with reasonable prospects of success" to expand their operations to an economical size or change to a different farm enterprise.

(4) To implement income programs for commercial agriculture. Farm income could be raised primarily through improvements in production controls—such as the restriction of quantities sold rather than acreage farmed, and negotiability of quotas. Some means of selling abroad at a lower price than at home, encouraging more direct farmer marketing, and programs to subsidize food consumption of low-income families were also promoted by the Subcommittee.

Regarding its recommendations, the Subcommittee, obviously frustrated, concluded "the programs suggested here are too diverse and uncoordinated, and the circumstances in which they must be worked out are too uncertain for successful operations." The Subcommittee conclusion also added that the management of farm programs was ineffective because of the "pressures now surrounding farm policy." They suggested that consideration be given to creating a board or commission to manage farm programs.

A sense of frustration, pessimism, and futility characterizes the 1958 report. While some enthusiasm is generated in a few phrases such as, "when properly utilized, farm surpluses can serve as a valuable national asset" and "agriculture should not be defeatist about expanding the market outlets for its resources . . . there is no way of knowing how much success can be gained unless every effort is made to succeed", the effort to be optimistic is weak, and unconvincing. The farm problem was so complicated and severe that, in the Subcommittee's judgment, "programs to improve farm income apparently will be needed for a decade."

In 1981, twenty-five years later, real farm income fell below the depressed 1957 level and dropped to the lowest it has been since the Great Depression. What has gone wrong?

### III. FARM ECONOMIC TRENDS, 1958–1981

In the quarter-century following 1957 agriculture underwent a dramatic transition that changed the very structure of the farm economy. The industry adapted in a comparatively short time span to tremendous technological advance that altered economies of scale, labor and capital requirements, stewardship customs, and business practices and opportunities. Strong market forces prevailed upon both the individual farm and the agricultural industry as a whole. Time-honored family farm traditions were shaken while bright prospects for the agri-business industry were created. Government intervention, in the form of increased regulation, subsidies, and credit allocation, also altered the environment in which agriculture existed.

A changing agricultural economy also had a significant effect on the overall U.S. economy. In addition, U.S. agriculture obtained a new prominence in international trade and foreign policy. Part V of this report studies these impacts in depth.

The following data summarize the change that transpired be-tween 1958 and 1981. The categories include statistics on farm structure, land, labor, production, finance and government:

The number of farms has declined from 4.2 million to 2.4 million (down 43 percent).

Farm population has fallen from 9.9 percent to 2.7 percent of total U.S. population.

Average farm size has increased from 302 acres to 431 acres. Land in farms is down only marginally, from 1.12 billion acres to 1.04 billion acres. Planted acreage has increased less than 10 percent, from 326 million acres to 357 million acres.

The percentage of farm operators who are full-time owners has remained stable (57-58 percent), but a substantial shift away from the "all tenants" (renters) category to the "part owner" category has occurred.

The value of production assets per farm have increased tenfold, from \$40,000 to \$405,167.

Farm productivity has increased 32 percent, measured in terms of output per acre and 240 percent in man-hour terms. The use of fertilizers has increased 45 percent.

Crop production is up 71 percent and livestock production up 37 percent.

The yield per acre of wheat has increased 55 percent and corn yields have doubled.

U.S. consumption of crops is up 29 percent and livestock products 17 percent.

Farm gross domestic product has fallen from 4.6 percent to 2.5 percent of gross national product.

In 1958 dollars, farm net income has declined from \$13.2 billion to \$7.3 billion, a 45 percent drop. Real net income per farm, however, has declined only 8 percent, from \$3,300 to \$3,040.

Per capita farm income as a percent of per capita non-farm income has increased from 55 percent to 82 percent.

Farm income derived from non-farm sources as a percentage of total farm personal income has increased from 34 percent to 63 percent.

Government price support levels for wheat and corn have more than doubled. However, after adjustment for inflation, the support levels have actually decreased.

Although highly variable between 1958 and 1981, government payments per farm nearly tripled, but in real terms remained almost constant.

Prices paid by farmers have increased 227 percent while prices received by farmers went up 151 percent.

Foreign sales now account for 25 to 30 percent of gross farm income as compared to 11 percent in 1958.

The volume of U.S. farm exports has increased 290 percent. Comparing the 1981 aggregate balance sheet for the farm sector to its 1958 counterpart reveals substantial changes in liabilities and the value and types of assets being employed. To make a direct comparison in real terms, the 1981 figures have been adjusted for inflation in the third column.

**BALANCE SHEET OF THE FARMING SECTOR** 

[In billions of dollars]

	1958	1981	1981 in 1958 dollars	Percent change 1958–81 in 1958 dollars
ASSETS				
Physical assets:				
Real estate	\$115.9	\$828.7	\$263.1	127
Non-real estate:		•	•	
Livestock	13.9	60.9	19.3	39
Machinery	20.2	102.3	32.5	39
Crops in-store	7.6	36.4	11.5	61
Household furnishings	9.9	22.0	7.0	- 29
Financial assets:				
Deposits and currency	9.5	16.2	5.1	- 46
U.S. Savings bonds	5.1	3.8	1.6	69
Investments in cooperatives	3.7	19.9	6.3	70
Total	185.8	1,090.3	346.1	86
CLAIMS				
Liabilities:				
Real estate debt	10.4	92.0	29.2	181
Non-real-estate debt to				
Commodity Credit Corp	1.2	4.4	1.4	17
Other reporting institutions	5.0	64.2	20.4	308
Nonreporting creditors	3.8	14.0	4.4	16
Total liabilities	20.4	174.5	55.4	171
Proprietors equities	165.4	915.7	290.7	76
Total	185.8	1.090.3	346.1	86
Debt-to-equity ratio	0.123	0.191		

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Several points are noteworthy in this comparison. Uneven growth in the categories indicates that the relative importance of different ones has changed significantly, as the following highlights demonstrate:

The real value of all assets devoted to agricultural production has increased 86 percent.

Real estate assets have increased 127 percent while non-real estate assets have increased only 36 percent. Financial assets have actually declined by 29 percent.

Real estate accounted for 62 percent of total assets in 1958 and 76 percent in 1981.

Total liabilities increased 755 percent while equity increased by 454 percent. As a result, the debt-to-equity ratio has deteriorated from 12.3 percent to 19.1 percent. Also, the ratio of incremental increases in debt to additions to equity since 1958 is 27.9 percent.

The economic trends of the 1960's and 1970's—a weakening in financial vitality and tremendous growth in production principally continued in the early 1980's. The agricultural recession which began in 1979 did not improve in conjunction with the temporary recovery of the U.S. economy in 1981 and deepened in 1982. In spite of the federal acreage reduction program, record corn, soybean and wheat harvests were realized in 1982. Because of only modest export growth and stagnant domestic demand, carryover stocks grew from their already excessive surplus levels. As a result farm prices plummeted.

Punctuating the decrease in prices was an increase in costs absorbed by farmers. Hence, real net farm income has fallen to its lowest level since the 1930's.

Because the government is heavily involved in the agricultural economy, the cost to it is significantly greater. Farmers are expected to forfeit grain under price support loans in amounts not attained for a decade. The default and foreclosure rates on government-sponsored farm loans are alarmingly high.

In summary, the trends and changes in the agricultural sector over the past quarter century have altered the economic structure of the farm. Farm operations have become more dependent on offfarm sources of income to augment finances; only 37 percent of total farm income now comes from farm marketings. Income has also become more dependent on export sales, which now account for one-third of total sales. Historically, the export market has been much less stable than the domestic market; thus greater reliance on exports may lead to greater income uncertainty.

Rates of return on equity, while always low relative to performance of other industries, are currently much lower than the historical average of 3 percent. The value of land appears to be greater than its production value, explaining in part the historical low rates of return. The financial well-being of the farm has become ever more reliant on the value of real estate assets, which increased over 600 percent in nominal terms (127 percent in real) since 1958. Land value increases accounted for 79 percent of the increase in the value of all assets since 1958.

However, in the 1980's thus far, farmland values have declined in both nominal and real terms. This decline has caused considerable strain on highly leveraged operations whose collateral bases have deteriorated. Despite equity gains on the asset base, the debtto-equity ratio has increased 55 percent since 1958, giving further evidence of a worsening financial picture.

Federal farm policies and programs over the last 25 years have attempted to achieve economic stability by encouraging the exit of resources out of agriculture. However, these efforts have failed due to ineffective incentives, the use of inadequate production control factors, and contradictory policies that have encouraged production. Farmers simply substituted capital and chemicals for land and labor and in the process created greater productivity and more efficient use of inputs. The amount of resources devoted to agriculture is almost the same as was employed during World War II, but the present day mix of labor and technology produces 70 percent more output.

Agriculture's capability to produce in excess of domestic needs appear to have created the initial stimulus to export, i.e., the supply prompted a search for the demand. The rapid growth of food exports contributed positively to U.S. balance of payments and strengthened America's industrial base and gross national product. Despite these gains, federal policy makers have continued to employ production disincentives to deal with farm price and income problems. Had these restraint policies succeeded, U.S. food producing technology may not have been developed to the degree that it has.

Clearly, world leaders recognize what potential lies in the hands of the world's most efficient food producer. Yet, agriculture's clout remains muted in U.S. leadership circles despite the tremendous benefits given to our nation through (1) economic stimulus (favorable balance of trade and ample domestic food supplies at relatively low prices), and (2) political enhancement (using food for humanitarian purposes and as an instrument of foreign policy).

Part IV discusses in greater detail the impact of national and international economic forces on U.S. agriculture.

### IV. NATIONAL AND INTERNATIONAL ECONOMIC INFLUENCES

Perhaps the most fundamentally significant difference between the agricultural industry analyzed by the Joint Economic Committee in 1958 and again in 1982 is the tremendous influence of national and international economic forces outside the farm sector on the U.S. food economy. Though historically isolated and insulated from changes outside the farm sector, agriculture has been integrated into the macroeconomic system. The decade of the 1960's witnessed changes in industrial and social structure which primarily affected urban America. As these changes required more national attention, rural interests and concerns became less recognized, resulting in further erosion of agriculture's political prominence. The farm industry's unique market structure was no longer given extraordinary consideration despite the importance of food in the economy; food supplies were taken for granted because of years of abundance.

A number of factors were imposed on the farm sector during the 1970's including inflation, high interest rates, sagging commodity prices and a faltering domestic economy whose real output and income stagnated and actually declined. On the international level, American agriculture was affected by fluctuating demand, a global economic slowdown and peculiarities in foreign currency exchange rates. Each of these factors has had a dramatic influence on farm income and financial well-being.

Before elaborating on these macroeconomic and international influences, two aspects of the agricultural sector must be noted. First, the U.S. farming industry exists in an almost perfectly competitive market structure, and it is the only major industry to have this distinction. Farmers are faced with the classical element of competition: They are price takers. The individual farm business is simply too small, relative to the size of its industry, to influence the price of either inputs or outputs. The farmer buys from, and sells to, firms that compete in economic environments that are considerably less "perfect" than his own. As a result, cost increases in production inputs and increases in marketing costs are more easily passed forward onto the farmer than backward onto the producer of inputs. On the revenue side of the ledger, prices are taken as given, and for most products, are essentially dependent on current supply and demand. Excess supplies and/or a slumping demand can (as currently is the case) dramatically depress prices. In fact, excess food supplies can, for all intents and purposes, be worthless and even burdensome since storage costs are considerable.

Second, declining federal support has made agriculture compete more directly for national economic resources. This is apparent in the case of loanable funds. While loans to farms and industries supporting farms were formerly given subsidized rates, the terms of those loans today largely reflect market conditions. Also, price supports for commodities are not at levels that reflect adequate rates of return.

An inflationary environment imposes a burden on industry and consumer alike. The farm was especially hit hard by the exponential increases in oil prices during the 1970's. Farmers substantially increased their substitution of equipment for labor in the 1960's and 1970's, and the greater dependence on energy has resulted in increased farm costs. As many of the chemicals used in farming are petroleum distillates, these costs increased dramatically as well. Since the farmer is generally a price taker on all inputs, the burden of cost increases were passed on to him.

Since 1979, while prices received by farmers virtually remained constant, prices paid by farmers for production items, interest, taxes and wages have increased almost 25 percent. Between 1979 and March 1982 inflation, as measured by the consumer price index, advanced 30 percent. A considerable portion of American society managed to keep pace with inflation. To American farm owners, however, inflation is a direct out-of-pocket expense.

The inflation rate has also become part of interest rates. Interest charges on farm debt reached about \$19 billion in 1981, an increase of 20 percent from 1980. As a result, federal fiscal and monetary programs and policies contributing to lower inflation rates are of immense importance to agriculture. Reagan Administration programs as of the fall of 1982 have cut the rate of inflation by onehalf; this trend may mean an additional \$7-9 billion cost burden will have been avoided in farm net income.

This successful effort to reduce inflation, however, has required stringent fiscal and monetary measures which, in the short run, have adversely impacted agriculture. Government expenditures, including those for agriculture, have been reduced; revenues have been enhanced to cut federal deficits, and constrained growth in the money supply has kept interest rates high. While little progress has been made in cutting federal deficits, interest rates have dropped dramatically in the fall of 1982.

Taxes are also costs affecting farm operations. The Economic Recovery Tax Act of 1981 should reduce short- and long-term farm tax liabilities. In addition to phasing in personal and corporate income tax rate reductions, the Act allows farmers to recover capital outlays over a shorter period of time which will result in greater incentives for investment in the farm sector, and substantially reduces estate and gift taxes which will facilitate the transfer of farms from one generation to another.

The entire domestic economy has been faltering for the past eight years due to inflation, changes in savings and investment behavior, changes in demographics, unemployment trends, and foreign competition. During the late 1970's, purchasing power shrank as real disposal income fell. Millions of families also had to adjust to unemployment of one or both of the income earners. As households adapted their budgets to tight circumstances, food expenditures were also adjusted. For example, meat has a high income elasticity; thus consumers have substantially decreased their purchases of meat during the past several years. In addition, unemployment has hurt farm households because 60 percent of farm income is now earned through off-farm sources.

At a time when farm costs have risen at a fast pace, prices for farm commodities have been lackluster at best. Responding to both supply and demand changes, prices have been subjected to downward pressure. In response to higher costs, farmers have increased production, causing a greater surplus which in turn has resulted in even lower prices. This vicious cycle has created the worst economic condition of agriculture since the 1930's.

Price decreases caused by three years of record-breaking crop production, cost increases due to years of compounding inflation and export contractions prompted by a diminished demand for U.S. grain have simultaneously created a cost-price squeeze that has crippled farm finances. As a result, farm proprietor's income plummeted 45 percent between 1979 and 1982. This national income account pales in comparison to other entries; in this time interval non-farm proprietor's income was up 33 percent, wages and salaries increased 25 percent, and transfer payments rose by 44 percent. Farm revenues have held relatively steady revealing that inflated farm expenses have eroded profitability. If only production expenses had remained constant between 1979 and 1980, net farm income would have been 60 percent higher than actually was realized.

Fortunately, substantial advances have been made during the last 12 months in improving the cost portion of the cost-price squeeze equation that has long plagued U.S. farmers. Improvements in the price portion of this equation, however, present perhaps an even greater challenge. As indicated earlier, farm prices are a function of supply and demand. Therefore, if prices and income are to be raised either supply has to be contracted, demand expanded, or both. Any expansion in supplies must be more than offset by growth in demand, indicating the extreme importance of exports.

The correlation between surpluses and prices is demonstrated by comparing changes in world grain stocks to changes in prices. An inverse relationship exists between the two, as illustrated by the following table.

Year	Stocks as percent of utilization	Percent change peak- to-trough	Percent change in real corn prices
1960/61	23.8		
1965/66	15.0	- 37.0	+ 10.2
1968/69	21.2	+41.3	- 14.0
1970/71	14.4	- 32.1	+ 5.4
1971/72	15.6	+8.3	-15.3
1974/75	10.8	- 30.8	+ 103.0
1978/79	15.4	42.6	- 48.3
1980/81	12.4	-24.2	+ 16.2
1982/83	15.4	+ 24.2	- 35.2

### WORLD CORN STOCK ADJUSTMENT PERIODS

According to latest available USDA estimates world wheat stocks are expected to increase from 83.1 million metric tons in 1981/82 to 90.8 million metric tons in 1982/83. The United States, while pro-

ducing only 17 percent of the world wheat, will be holding 43 percent of the world's wheat stocks in 1982/83, up from 36 percent in 1980/81. However, the U.S. share of world wheat trade currently stands at over 45 percent. An argument can be raised that a country's share of world stocks should be in proportion to its share of world exports. World coarse grain stocks are expected to increase from 109.8 million metric tons in 1981/82 to 132.6 million metric tons in 1982/83. Here again, while the U.S. produces less than onethird of the world's coarse grains, it will be holding 70 percent of its 1982/83 stocks; up from 43 percent in 1980/81. U.S. share of world coarse grain exports is a little over 64 percent. Combined, world wheat and coarse grain stocks are expected to increase 16 percent between 1981/82 and 1982/83. U.S. ending stocks in these grains, however, will increase 33 percent during this same period. U.S. 1982/83 production of soybeans is expected to reach 62.6 million metric tons; up from 54.4 million metric tons in 1981/82. In 1982/83 the U.S. will produce 64 percent of the world's soybeans and have an 84 percent share of the world's exports. Ending world soybean stocks are anticipated to increase 38 percent between 1981/82 and 1982/83, from 14 to 19 million metric tons.

In aggregate, world supplies of wheat, coarse grains and soybeans will increase 54 million metric tons between 1981/82 and 1982/83. World utilization, however, is expected to grow by only 18 million metric tons during this same period. Thus, world grain and soybean supplies will again substantially exceed world usage in 1982/83 resulting in a 17 percent increase in world stocks over 1981/82. Only a three percent growth in U.S. domestic demand for wheat, coarse grains and soybeans is expected between 1981/82 and 1982/83. These supply statistics yield the not surprising conclusion that U.S. farm cash receipts, in constant 1967 dollar terms, will decline in 1983 for the fourth consecutive year. Even more alarming, farm expenses are expected to exceed farm cash receipts in 1982 and again in 1983. Farmers will have a positive realized net income in 1982/83 only because of government payments and income from non-money and other sources. It is anticipated that direct government payments to farmers will almost double between 1981/82 and 1982/83, from \$2.4 billion to \$4.6 billion.

The livestock sector is particularly vulnerable to changes in consumer purchasing power. As a result, the 1980 downturn in the U.S. economy immediately hit the livestock sector most directly. Real livestock receipts fell by over 20 percent between 1979 and 1981. But because of this prolonged period of losses, the livestock industry made a major downward correction in supplies. The livestock industry, while a much smaller sector than it was two years ago, is presently quite profitable. Improved returns, however, will eventually lead to expansion in livestock herds.

The dairy sector, which has been the healthiest segment of the farm industry during the past few years, will experience an estimated \$1.5 billion decline in cash receipts in 1983 as a result of the budget reconciliation process. This legislation calls for continuation of the \$13.10/cwt support price for the next two years; however, a \$0.50/cwt assessment may be charged to producers on October 1, 1982 if the estimated 1983 Commodity Credit Corporation purchases exceed 5 billion pounds. An additional \$0.50/cwt assessment will be charged on April 1, 1983 if estimated purchases exceed 7.5 billion pounds. Dairy supplies are expected to exceed these trigger levels.

Obviously, the center of attention and concern lies with the current economic condition and future prospects of the crop sector of U.S. agriculture. A primary finding of the Spring 1982 hearings of the Subcommittee on Agriculture and Transportation was that many of the present problems facing U.S. agriculture today are, in large part, a direct consequence of dramatic changes in the structure of the world's economy and in the institutional arrangements which guide that economy. The internationalization of U.S. agriculture during the decade of the 1970's has significantly changed the context of domestic agricultural policy. Foremost, conventional commodity programs are an inadequate means of dealing with agriculture's current economic problems.

U.S. agriculture's expanding world role is easily demonstrated. During the 1970's wheat and corn exports quadrupled. Currently the U.S. exports over 60 percent of its annual wheat production, 26 percent of its course grains and 42 percent of its soybeans. Estimates indicate that over one-half of U.S. crop cash receipts come from the export market. Equally important is the high concentration of U.S. exports to a small number of countries. In 1980/81, the U.S.S.R. and China accounted for 30 percent of our wheat exports, Western European countries and Japan over 50 percent of our coarse grain exports and the European Economic Community and Japan over 60 percent of our soybean exports. One-third of all U.S. exports of wheat, coarse grains and soybeans go to three countries—the U.S.S.R., Mainland China and Japan. These delicate elements make the income of U.S. crop farmers most vulnerable and highly unstable. For example:

Wheat exports to the U.S.S.R. more than doubled from 1980 to 1981.

Wheat exports to China increased from 1.6 million metric tons in 1979 to 8.0 million in 1981.

Coarse grain exports to Japan fell by more than 15 percent in one year while exports to the U.S.S.R. climbed more than 50 percent.

Soybean exports to the U.S.S.R. reached a peak of almost 1.2 million metric tons in 1978 and then, two years later in 1980, fell to zero.

Within two years Mainland China cuts its U.S. soybean imports in half.

The extreme dependency of U.S. farm income on the size and variability of export sales presents a very difficult challenge to domestic farm programs. In addition to excess supplies and aggressive international competition, the "farm problem" today can be described in terms of a national and world-wide recession, a strengthening of the U.S. dollar, high interest rates and high domestic inflation. Unfortunately, international politics add to U.S. agriculture predicament.

The most obvious example is the 1980 Russian grain embargo. Since 1978/79 the U.S.S.R. has more than tripled its grain imports. Unfortunately the U.S. farmer's share of the market has been reduced from 74 percent in 1978/79 to 34 percent in 1981/82. Our major competitors have been more than anxious and successful in satisfying the Soviet Union's needs. the following chart shows the quantity and source of Soviet grain imports.

<b>A</b>		Metric million tons				
Source	1978/79	1979/80	1980/81	1981/82	1978/79 to 1981/82	
United States	11.0	14.6	8.0	15.4	40	
Canada	2.1	3.0	6.9	9.2	338	
Australia		3.7	2.9	2.5		
European Community	0.2	0.1	1.1	1.8	800	
Argentina	1.4	5.0	11.2	13.3	1,250	
Others	. 0.2	1.0	3.9	2.7	1,201	
Total	14.9	27.4	34.0	44.9	201	
U.S. share (percent)	73.8	53.2	23.5	34.2		

U.S.S.R. GRAIN IMPORTS BY SOURCE

Yet another disturbing trend in international grain trade is the growth in bilateral, government to government, trade agreements. Canada, for example, has at a minimum almost 55 percent of its total wheat and barley exports for 1982/83 already committed to bilateral agreements. Canada's largest grain agreements are with the U.S.S.R., Mainland China and Japan. Perhaps as much as 40 percent of the world's grain trade is locked in by trade agreements. The open and competitive world market for grain is shrinking.

The high value of the U.S. dollar relative to the currencies of other countries has become an extremely detrimental factor in the United States competitive position in world grain markets. Since 1979 a 40 percent increase in the worth of the dollar has occurred. The American farmer finds it difficult to understand why foreign countries cannot buy his products when they're being offered at such depressed price levels. A partial, but important, explanation is the extremely significant impact that exchange rate realignments can have on the foreign demand for U.S. agricultural products. For example, while on-farm U.S. soybean prices fell by 30 percent between September 1980 and September 1982, during the same period the cost of soybeans to foreign purchasers actually increased by 60 percent. To potential importers, this effective price increase combined with the generally depressed economies of these importing countries has substantially reduced the ability to pay, and therefore the demand for U.S. agricultural products. Eastern European countries, and Mexico, previously considered as key growth markets for U.S. food products are on the brink of financial collarse

kets for U.S. food products, are on the brink of financial collapse. The distressed financial condition of several important U.S. agricultural product importers, including the U.S.S.R., makes it extremely and increasingly difficult for them to obtain credit from commercial sources. As a result, exporting countries are forced to provide government subsidized credit to make sales. The subsidy generally takes the form of a government "buy down" of interest rates and/or guaranteed loans.

The eagerness on the part of some exporting countries to provide subsidized credit to buyers is just one indicator of the expanding involvement of government in agricultural international trade. In addition to subsidizing the purchase of the product, many countries—most notably the European Community—directly subsidize the production of the commodity. France's export subsidy program, for example, directly stimulates increased wheat production in that country. This increased production, coupled with a policy designed not to accumulate stocks, results in dumping wheat on the world market, which increases the added downward pressure on prices. Estimates indicate that the European Community spent nearly \$1.5 billion to subsidize cereal exports in 1981. EEC government expenditure for agricultural programs accounted for 16 percent of the value of production from 1976 to 1980. In Japan that support figure is almost 27 percent. Since U.S. government support is around 3 percent, a considerable competitive disadvantage is created by this intervention.

Processed U.S. agricultural products face not only increased subsidized foreign competition, a high valued U.S. dollar, depressed world economies, etc., but also a host of tariff and nontariff trade barriers. Generally trade barriers are lower for raw agricultural products that serve as inputs to a further stage of processing, and higher for semi-finished products. Canada, for example, has a zero tariff on raw soybeans, a 10 percent ad valorem tariff rate on crude soybean oil, and a 17.5 percent ad valorem tariff rate on refined soybean oil. The European Community has a similar tariff scale, as do many other countries. A variety of nontariff barriers also confronts U.S. agricultural exporters-licensing, state valuation, state trading, and special duties, standards and health regulations. Together with tariff arrangements these barriers are imposed to protect domestic processing industries. This protectionism is usually escalated considerably during periods of economic recession, as the world is currently experiencing.

Such international cooperative efforts as multilateral trade negotiations and the General Agreement on Tariffs and Trade appear to have little staying-power when national interests are at stake. For example, the Tokyo round of the Multilateral Trade Negotiations yielded an agricultural "subsidies code" restricting the use of subsidies in international trade. Yet immediately after signing the code in June of 1979, the European Community began subsidizing chicken parts in addition to whole birds. Between 1967 and 1978 annual expenditures by the EC on subsidies for poultry meat exports have increased eleven times. In 1979 and 1980 EC subsidies exceeded total expenditures for the entire previous twelve year period. In 1981 alone the EC spent \$1 million on poultry meat export subsidies.

While the United States certainly has its protectiontist trade policies—most notably in regard to dairy products and sugar—it reacts very differently to symptoms of overproduction. The expenditure of millions of dollars to store and isolate huge supplies of grain from the international market, and the provision of incentives to U.S. farmers to idle and divert land out of production is ample evidence of this country's commitment to improving the economic condition of world, as well as American, food producers. A USDA official recently responded with the following: I cannot help but wonder how long the United States can continue to absorb the burden of unilateral adjustments to world market conditions. Perhaps we are approaching the point at which policy adjustments, which may be painful in the short run, are necessary to ensure longer term prosperity for U.S. agriculture \* \* \*. (I)t may be necessary to deviate temporarily from our free market stance and engage in costly short-run trade wars to achieve the principles that we have set forth.

### V. THE IMPORTANCE OF AGRICULTURE TO THE U.S. ECONOMY

Section IV of this study dealt with the pervasive and growing influence of the U.S. and world economic forces on U.S. agriculture. A reverse linkage is also evident. In September 1981 the Subcommittee on Agriculture and Transportation of the Joint Economic Committee held a series of four hearings on the subject of the importance of agriculture to the U.S. economy. Presentations were made by the Secretary of Agriculture, John Block; Murray L. Weidenbaum, Chairman of the Council of Economic Advisers; William E. Brock, U.S. Trade Representative; and Robert D. Hormats, Assistant Secretary of State for Economic and Business Affairs. Much of the material contained in this section was drawn from the testimony of these witnesses.

The food and agricultural system of the United States as an industry accounts for over 22 percent of U.S. employment and over 20 percent of this country's Gross National Product. The effort of approximately 3.4 million people directly employed in farming production agriculture—creates an additional 20 million jobs: 1.7 million in food processing, 2.5 million in resource supplies, 5.0 million in manufacturing, 7.6 million in transportation, wholesaling and retailing, and 3.3 million in eating establishments.

In 1979 U.S. farmers produced over \$70 billion of food and fiber. By the time this food and fiber was consumed other sectors of the food and agricultural industry added \$415 billion to its value. In effect, six dollars are generated for every dollar's worth of product created by the farming sector. Assets devoted to agriculture amounted to nearly one trillion dollars. That figure is equal to almost 90 percent of the combined total assets of all manufacturing corporations in the United States. The value of farm assets coupled with the economic activity generated by farm products flowing through our economic system, makes agriculture and the food and fiber system this nation's largest industry and employer.

In 1981, U.S. families spent 15.5 percent of their personal income on food including alcoholic beverages. Five years ago Americans devoted 16.5 percent of their personal income toward purchases of food and alcoholic beverages, indicating that the relative burden of food on the family budget is lessening. While even 15.5 percent may seem large, it is much less than the share of personal income accounted for by food in the United Kingdom, France, Japan and virtually all other developed countries. In addition, the quality, nutrition value and variety of food available to U.S. consumers is unmatched anywhere else in the world. The tremendous growth in productivity of the U.S. agricultural system has freed billions of dollars of consumer income for the purchase of other goods, savings and investment. If Americans had devoted 20 percent of personal income to food purchases in 1981, over \$108 billion more would have been spent on food.

Food prices have also contributed significantly to recent dramatic reductions in the rate of inflation. During the six month period ending in August 1982 the seasonally adjusted annual rate of change in the consumer price index (CPI) was 5.8 percent. Food and beverages, however, advanced only 2.2 percent during this same period and the prices of food consumed at home (a subgroup of food and beverages) went up less than one percent. During six out of the last eight years food and beverage prices have increased at a slower pace than the CPI.

In response to increased world demand for U.S. farm commodities, rising agricultural exports have had a crucial impact on the U.S. economy. Farm commodities exported represent about onethird of total U.S. cropland production. U.S. agricultural exports for 1982 are forecast at \$39.5 billion. In recent years agricultural exports have recovered over half the cost of imported petroleum and petroleum products. In addition, the Department of Agriculture estimates that a one million dollar export sale of wheat, for example, generates almost \$5.5 million of direct, indirect and induced business activity in the U.S. economy.

An argument can be raised that farming has a negative impact on the U.S. economy to the extent it receives federal government subsidies or payments. However, government farm support relative to federal outlays and production value has tended to decrease over time. The following table shows direct payments to farmers from the federal treasury as a percentage of total federal outlays. Throughout the decade of the 1960's direct government payments to farmers consistently represented 1.8 percent of total federal outlays. Over the 1970 decade, that average declined to about 0.5 percent. In real terms, federal farm support has declined even more dramatically.

Year	Direct payments to tarmers	Federal outlays	Direct payments as percent of outlays	Direct payments to farmers in 1972 dollars
1972	\$4.0	\$230.7	1.7	\$4.0
1973	2.6	245.6	1.0	2.
1974	0.5	267.9	0.1	0.4
975	0.8	324.2	0.2	0.0
976	0.7	364.5	0.1	0.
977	1.8	400.5	0.4	1.3
978	3.0	448.4	0.6	2.0
979	1.4	491.0	0.2	Ū.4
980	1.3	576.7	0.2	0.1
981	1.9	657.2	0.2	1.0
1982	14.3	731.0	0.5	2.

(In billions of dollars)

' Forecast.

Federal government expenditures for agricultural programs as a percentage of value of agricultural production has also declined. The cost of government programs for agriculture in the U.S., EEC, Japan and the Soviet Union are shown in the following table.

### GOVERNMENT EXPENDITURES FOR AGRICULTURAL PROGRAMS AS A PERCENTAGE OF VALUE OF AGRICULTURAL PRODUCTION

· Country	1970-75	1976-80
United States	3.9	·3.3
European Economic Community	14.7	16.1
Japan	19.5	26.9
Soviet Union	26.6	27.9

Source: USDA.

While U.S. Government support on a value of production basis has declined in this country, other nations have increased their food subsidies. This evidence is further indication of what a bargain food is in this country: other countries have a significant hidden tax imposed on consumers to support less efficient farm industries.

Being the world's leading agricultural nation has provided the U.S. with a powerful political, as well as economic, leverage in international relations. In addition to over \$40 billion of commercial sales, U.S. farmers, through their government, contribute greatly to world food security—the assurance of regular and adequate food supplies for a significant portion of the world's population. The U.S. is the largest donor of food aid in the world, which is achieved in part through its P.L. 480 donor program and by being the largest contributor to the United Nations World Food Program and the International Emergency Food Reserve.

The U.S. further enhances world food security by maintaining at its own expense adequate national and global stocks to meet inherent year-to-year fluctuations in grain production. The U.S., in fact, is the only nation with an intentional policy of holding carryover grain reserves in order to meet international and domestic needs. In addition, the U.S. has comprehensive programs designed to assist developing countries in increasing their domestic food production. The actual and potential manipulation of commercial agricultural sales by the federal government to pursue foreign policy objectives, while certainly controversial, is nonetheless another attribute and contribution of U.S. agriculture.

### VI. FINDINGS

The following "Findings" of this staff study are presented more for the purpose of focusing needed debate than to suggest conclusions:

(1) While agriculture's financial bottom line today is dishearteningly similar to its economic condition 25 years ago, the causes of the "farm problem" have materially changed. In 1958 U.S. agriculture was overproducing for the domestic market, but today it is apparently overproducing for the world market. In the 1970's excess resources in agriculture were absorbed by escalating world demand. To a very significant extent today's "farm problem" can be traced to the global recession.

(2) Proposed solutions to the "farm problem", however, have not changed. The 1958 JEC report was accurate when it concluded: "In view of the economic setting likely to exist for farm policy in the years ahead, production control will continue to be a main reliance for improvement of farm income." It is important to remember that this conclusion was premised on a very pessimistic perception regarding the future growth in the demand for U.S. agricultural products. Since 1958 the demand for U.S. farm products has increased almost 50 percent. Yet real farm net income in 1981 is about one-half of what it was in 1958.

(3) The internationalization of U.S. agriculture and world competition has brought into question the effectiveness of unilateral production controls. The market is signaling that a reduction in output is needed. When the United States implements very costly acreage reduction and grain storage programs, other exporting nations take advantage of these actions and proceed to plant and harvest record acreages. Making matters worse, commodity loan rates are raised which in turn raises the world's floor price for grain, thereby increasing the incentive for further increases in world production. The result of this frightening market trend is a vicious downward spiral in U.S. world grain market shares and the decline of the U.S. agricultural industry. If the U.S. continues to cut back production and increase budget outlays while its competitors aim for all-out production, the U.S. agricultural base could easily shrink and become less productive.

(4) Clearly no country would willingly subordinate its domestic interests to any form of international cooperative agreement. Bilateral contracts between countries for sales and purchases, and tariff and trade concessions appear to be more fruitful; both countries would be assured of real benefits. However, this implies that a degree of free market flexibility of prices may be lost.

(5) The use of agricultural product embargoes as a foreign policy weapon probably did more harm to the U.S. economy than to the economies of nations to which they were applied. Also, not honoring sales contracts has had lingering effects, since the reputation of the U.S. as a trading partner has been damaged. Non-agricultural economic sanctions (for example the U.S. ban on equipment and technology to construct the U.S.S.R. pipeline) have agricultural trade ramifications as well.

(6) Farmers can receive substantial net income benefits from stable and consistent monetary and fiscal policies. Lower interest and inflation rates, improved domestic real personal incomes, and a more realistic U.S. dollar value in foreign exchange are essential for agriculture's economic recovery.

(7) Production decisions of farmers must take into account factors of global supply and demand. In 1982 for the first time in recorded history, farm expenses will exceed farm cash receipts. This event is projected to occur again in 1983. Excluding non-money and other income sources, the only reason U.S. agriculture will show a positive net income will be because of government payments. More bluntly stated, farm net income in 1982 and probably in 1983 will be a transfer payment. The revenue requirement of that transfer payment may well become more burdensome in the future, since higher costs result in higher support prices. Continued reliance on government support is hardly a future that any farmer, consumer, taxpayer or public official desires.

(8) The current world surplus of agricultural commodities will continue to put a damper on the U.S. agriculture economy. An acreage reduction plan with a successful participation rate, while very costly to the federal government, cannot guarantee successful results in reducing world food supplies. Foreign competitors appear to be ready and able to capitalize on any production disincentives employed in the U.S.

(9) On the domestic side, agriculture is a major contributor to the well being and standard of living enjoyed by Americans. Food costs relative to income are among the lowest of all industrialized countries in the world. No other country offers the variety and quality that U.S. consumers are offered.

(10) Exports of agricultural commodities play a very important role in U.S. balance of payments. In 1981, agricultural trade exceeded \$43 billion, netting a positive balance of over \$26 billion. By comparison, agricultural exports almost offset the cost of imports from OPEC nations, which amounted to \$49 billion and a negative \$28 billion balance of payments.

The U.S. farmer is the most productive food producer in the world, in terms of both quantity and quality. This efficiency in food production is complemented by the provision of the most modern, versatile and effective food marketing and distribution system. Perhaps the most tragic circumstance of the last 25 years is that U.S. farm policy, particularly its emphasis on maintaining world price supports above potentially market-clearing prices has, in effect, protected world farmers and their governments from feeling the full clout of our competitiveness.

# STATISTICAL APPENDIX

# PER CAPITA PERSONAL AND DISPOSABLE PERSONAL INCOME OF FARM AND NONFARM POPULATIONS, 1934-81

	Personai	income of farm po	pulation	Dispo	Farm as		
Year	From farm source	From nonfarm sources	From all sources	Of farm population from all sources	Of nonfarm population from all sources	Of total poplation from all sources	percentage of nonfarm per capita disposable income, all sources
1934	992	<b>\$</b> 66	\$167	\$163	\$498	\$413	32.7
1935	169	72	241	237	534	459	44 4
1936	145	83	228	224	614	517	36.5
1937	199	88	287	283	636	550	44.5
1938	152	80	232	227	588	502	38.5
1939	154	85	239	235	627	534	37.5
1940	159	90	249	240	669	570	42.1
1941	227	108	335	323	798	691	46.7
1942	351	136	487	464	974	865	53.6
1943	463	166	629	555	1,072	973	57.0
1944	491	179	670	593	1,152	1,052	56.4
1945	525	180	705	519	1,160	1.066	58.1
1946	609	179	788	706	1.216	1.124	58.1
1947	613	205	818	726	1,268	1,170	57.3
948	737	239	976	877	1.363	1,282	58.4
1949	549	256	805	733	1,361	1.259	53.9
1950	611	272	883	802		1.362	58.9
					1,462		
1951	738	297	1,035	917	1,556	1,455	62.6
1952	703	309	1,012	884	1,616	1,515	58 3
1953	667	324	991	868	1,682	1,581	54.9
1954	652	312	964	855	1,680	1,583	54.0
1955	590	325	915	810	1.775	1.664	48 7
1956	591	352	943	830	1.855	1.741	47.7
1957	614	375	989	869	1,909	1.802	48.2
1958	732	390	1.122	990	1.924	1.832	54.0
1959	627	430	1,057	930	2,003	1,903	48.9
1950	711	463	1,174	1,026	2,034	1,947	52.7
1961	771	516	1.287	1.125	2.066	1.991	56.5
1962	796	583	1,379	1,201	2,145	2,073	\$7.9
1963	824	670	1,494	1,300	2,208	2,144	60.6
1964	773	752	1,525	1.345	2.364	2,296	58.6
1965	968	850	1.828	1.606	2,505	2.448	65.6
1956	1.088	966	2.054	1 793	2.664	2 613	68 6
967	1.022	1.080	2,102	1,826	2,811	2,757	66.2
968	1.078	1.227	2,305	1.978	3.010	2,955	66.9
000	1,078						
1969		1,352	2,606	2,202	3,202	3,152	69.9
970	1,348	1,509	2,857	2,446	3,438	3,391	72.1
971	1,445	1,652	3,097	2,679	3,665	3,620	74.0
1972	1,772	1,904	3,676	3,124	3,896	3,861	80.9
973	3,079	2,160	5,240	4,490	4,307	4,316	104.0
1974	2,496	2,495	4,991	4,257	4,687	4,668	91.2
1975	2,807	2,457	5.264	4,559	5,095	5.075	89.8
976	2,251	2,695	4.946	4,239	5.522	5,478	77.4
1977 \	2,758	3,434	6.202	5,284	5,974	5,955	88.7
079							00.7 96.7
978	3,630	3,846	7.476	6,355	6,579	6,572	
1979	4,502	4,333	8,835	7,466	7,290	7,295	102.3
1980	2,916	4,912	7,827	6,598	8,040	8,002	82.5
	3,770	5,431	9,201	7,720	8,800	8,770	88.0

Source: USDA.

(23)

# DISPOSABLE PERSONAL INCOME OF THE FARM AND NONFARM POPULATIONS, AND POPULATION BY RESIDENCE, 1940-81

	<b>.</b>	Less: Total Disposable	Equals: Disposable	Farm as percentage				
Year	Total disposable personal income	personal income of farm population, all sources	personal income of nonfarm population, all sources	of total disposable personal income	Total	Farm	Nonfarm	Farm as percentag of total
0	75,328	7,346	67,982	9.8	132,122	30,547	101,575	23
1	92,156	9,727	82,429	10.6	133,402	30,118	103,284	22 21
2	116,631	13,414	103,217 118,490	11.5 10.9	134,860 136,739	28,914 26,186	105,946 110,553	1
3	133,026 145.610	14,536 14,723	130,887	10.9	136,739	20,100	113,582	1
4	145,610	14,723	134,006	10.1	139,928	24,420	115,508	j
5 6	158,935	17,923	141.012	11.3	141.389	25,403	115,986	
7	168,688	18,745	149,943	11.1	144,126	25,829	118,297	j
8	187,988	21,389	166,599	11.4	146,631	24,383	122,248	i
9	187,869	17,723	170,146	9.4	149,188	24,194	124,994	
Ő	206,590	18,494	188.096	9.0	151.684	23.048	128,636	i
1	226.021	20.076	205,945	8.9	154,287	21,890	132,397	
2	237,739	19,232	218.507	8.1	156,954	21.748	135,206	
3	252,219	17,260	234,959	6.8	159,565	19,874	139,691	
4	257.099	16.267	240.832	6.3	162,391	19,019	143,372	
5	274,958	15,445	259,513	5.6	165,275	19,078	146,197	
6	292,926	15.531	277,395	5.3	168,221	18,712	149,509	
7	308,638	15.346	293,292	5.0	171,274	17,656	153,618	
8	319,010	16.962	302.048	5.3	174,141	17,128	157,013	
9	338,449	15,429	323.020	4.6	177,888	16,592	161,296	
Ó	351,992	16.048	335,944	4.6	180,760	15,635	165,125	
1	365,750	16.647	349,103	4.6	183,742	14,803	168,939	
2	386,791	17,191	369,600	4.4	186,590	14,313	172,277	
3	405.879	17.374	388,505	4.3	189,300	13,367	175,933	
4	440.587	17,424	423,163	4.0	191,927	12,954	178,973	
5	475,779	19,861	455,918	4.2	194,347	12,363	181,984	
6	513,690	20,789	492,901	4.0	196,599	11,595	185,004	
7	547,911	19,860	528,051	3.6	198,752	10,875	187,877	
8	593,418	20,677	572,741	3.5	200,745	10,454	190,291	
9	638,933	22,693	616,240	3.6	202,736	10,307	192,429	
0	695,288	23,754	671,534	3.4	205,052	9,712	195,340	
1	751,751	25,251	726,500	3.4	207,661	9,425	198,236	
2	810,322	30,026	780,296	3.7	209,896	9,610	200,286	
3	914,495	42,532	871,963	4.7	211,909	9,472	202,437	
4	998,345	39,439	958,906	4.0	213,854	9,264	204,590	•
5	1,096,068	36,812	1,059,256	3.4	215,973	8,864	207,109	
6	1,194,359	31,905	1,162,454	2.7	218,035	8,253	209,782	
7	1,311,537	32,730	1,278,807	2.5	220,239	6,194	214,045	
8	1,462,939	41,313	1,421,626	2.8	222,585	6,501	216,084	•
9	1,641,729	46,595	1,595,134	2.8	225,055	6,241	218,814	
0 1	1,821,699 2.016.000	39,927 44,696	1,781,772 1,971,304	2.2 2.2	227,658 229,805	6,051 5,790	221,607 224,015	

Source: USDA.

### GROSS AND NET INCOME FROM FARMING (INCLUDING FARM HOUSEHOLDS), OFF-FARM INCOME, AND TOTAL INCOME OF FARM OPERATOR FAMILIES, 5-YEAR AVERAGES 1910–39, ANNUAL 1940–81

Year	Gross income	oss income Production	Operators' net	Off-farm income of farm operator families	Total income of farm	Net farm income of-	
	from farming	expenses	farm income		operator families	Gross farm income	Total family income
1910-14           1915-19           1920-24           1920-24           1925-29           1930-34           1930-33           1940           1941           1942           1943           1944           1945           1945           1946           1947           1948	\$7,774 13,216 12,404 13,621 8,230 10,698 11,340 14,271 19,893 23,344 24,038 25,374 29,568 32,386 35,454	\$3,790 6,187 7,318 7,520 5,207 5,824 6,858 7,781 10,040 11,608 12,333 13,062 14,500 17,032 18,790	\$3,984 7 (29 5,086 6,101 3,023 4,873 4,482 6,490 9,853 11,736 11,736 12,312 15,068 15,354 17,664	NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA NA NA NA NA NA	51.2 53.2 41.0 44.8 36.7 45.6 39.5 49.5 50.3 48.7 48.5 51.0 47.4 48.5	NA NA NA NA NA NA NA NA NA NA NA NA
1948 1949 1950	30,762 33,103	17,982 19,455	12,780 13,648	NA NA	NA NA	41.5 41.2	NA NA

### GROSS AND NET INCOME FROM FARMING (INCLUDING FARM HOUSEHOLDS), OFF-FARM INCOME, AND TOTAL INCOME OF FARM OPERATOR FAMILIES, 5-YEAR AVERAGES 1910–39, ANNUAL 1940–81-Continued

Year	Gross income	Production	Operators' net	Off-farm income of	Total income of farm	Net farm income as percentage of		
	from farming	expenses	farm income	farm operator families	operator families	Gross farm income	Total family income	
1951	\$38,282	\$22,348	\$15,934	NA	NA	41.6	N	
1952	37,751	22,790	14,961	NA	NA	39.6	N	
1953	34,447	21,467	12,980	NA	NA	37.7	Ň	
954	34,181	21,808	12.373	NA	NA	36.2	N	
955	33,476	22,171	11.305	NA	NA	33.8	Ň	
956	33,959	22.705	11,303	ŇĂ	NA	33.0 27 1	Ň	
1957	34,788	23,703	11 085	NA	ŇĂ	33.1		
						31.9	N	
	38,958	25,790	13,168	NA	NA	33.8	N	
1959	37,890	27.177	10,713	NA	NA	28.3	N	
960	38,894	27,376	11,518	\$8,482	\$20,000	29.6	57.	
951	40,547	28,590	11.957	9,163	21,120	29.5	55.	
962	42.343	30,279	12,064	9,904	21,968	28.5	54	
1963	43.368	31.598	11.770	11.020	22,790	27.1	51	
964	42,304	31,812	10,492	11.637	22,129	24.8	47	
1965	46.549	33,650	12,899	12 727	25 626	21 1	50.	
966	50,458	36 588	13 960	13,882	27.842	27 7	50	
967	50,520	38 181	12 220	14 495	26.834	54.4	46.	
958	51,847	39.525	12 322	15,466	27,292	23.8	44.	
959	56,408	49 110	14 002	10,400	27,700	25.3		
		12,113	14,293	10,012	20,902		46.	
	58,663	99,427	14,235	17,617	31,852	24.3	44.	
	61,968	47,190	14.//2	19,110	33.882	23.8	43.	
972	71.022	52.116	18,906	21,265	40,171	26.6	47.	
973	98,810	65,387	33,423	24,714	58,137	33.8	57.	
974	98,036	72,035	26,001	28,135	54,136	26.5	48.1	
975	101,004	75,757	25,247	23,905	49,152	25.0	51.	
976	101.967	83,300	18,667	26.426	45,093	18.3	41.4	
977	168,610	90,176	18,434	25,623	44.057	170	41	
978 .	127 244	100 589	26,655	28 721	55,367	20.9	48.	
1979	151,320	118,974	32 347	33,782	66,129	21 4	48	
1980	150,610	130,485	20 125	36,560	56.694	117	35.	
1981	166,753	141.636	25.117	39.329		15.1		
. 701	100,700	141,030	23,117	39,329	64,445	13.1	39.	

Source: USDA.

### GROSS INCOME FROM FARMING (INCLUDING NET COMMODITY CREDIT CORPORATION LOANS), BY MAJOR COMPONENTS, 5-YEAR AVERAGES, 1910–39, ANNUAL 1940–81

[In millions of dollars]

			Cash receipts				
Year		Marketings				Nonmoney and other farm	Gross income from farming
	Livestock	Crops	Total	payments	Total	income	
1910-14	2,948	2.981	5,929	0	5.929	1.845	1,174
1915–19	5.072	5,504	10.576	ŏ	10.576	2,640	13,216
1920-24	4,735	5.066	9,801	ŏ	9,801	2,604	12,404
1925–29	5.797	5 1 26	10 923	ŏ	10,923	2.698	13.621
1930- 34	3,592	2 792	6.374	116	6,490	1,740	8,230
1935–39	4,576	2,702	7,994	479	8,473	2,224	
	4,913	3,417					10.69
		3,469	8,382	723	9,105	2,235	11,34
1043	6,492	4,019	11,111	544	11,655	2,616	14,27
A 4 A	9,039	0.520	15,565	650	16,215	3,678	19,89.
943	11,493	8,127	19,620	645	20,265	3,079	23,34
944	11,351	9,185	20,536	776	21,312	2,726	24,03
1945	12,008	9,655	21,663	742	22.405	2,969	25.374
1946	13,786	11.016	24.802	772	25.574	3,994	29.56
1947	16.527	13.093	29,620	314	29,934	2,452	32,38
1948	17.129	13,098	30 227	257	30,484	5,970	35 45
949	15,409	12,396	27,805	185	27,990	2,772	30,76
950	16,105	12 356	28 461	283	28 744	4,359	33 18
951	19,619	13 239	22 959	286	33 144	5,138	29,29
1952	18,238	14,290	32,528	275	20 007	4,948	57.75
070	16.923		32,320	213	32,003		37,13
A7 4		14,078	31,001		31,219	3,233	34,44
	16,276	13,556	29,832	257	30,089	4,092	34,15
	15,967	13,523	29,490	229	29,719	3,757	33,47
955	16,363	14,038	30,401	554	30,955	3,004	33.95
957	17,376	12,338	29,714	1,016	30,730	4,058	34,78
958	19,227	14,229	33,456	1,089	34,545	4,413	38,95
1959	18,904	14,743	33,647	682	34,329	3,561	37,890
1960	18,989	15,259	34,248	702	34,950	3,944	38,894
1961	19.514	15.658	35,164	1.493	36.657	3,890	40.547
1962	20 158	16 318	36,468	1,747	38 215	4,128	42 34
963	20,047	17,430	37,477	1,696	39,173	4,195	43,35

### GROSS INCOME FROM FARMING (INCLUDING NET COMMODITY CREDIT CORPORATION LOANS), BY MAJOR COMPONENTS, 5-YEAR AVERAGES, 1910–39, ANNUAL 1940–81—Continued

			Cash receipts			N	Gross income from farming	
Year		Marketings		Government	T-1-1	Nonmoney and other farm		
	Livestock	Crops	Total	payments	Total	income		
1964	19,948	17,178	37,326	2,181	39,507	2,797	42,30	
1965	21,886	17,479	39,365	2,463	41,828	4,721	46.54	
1966	25.026	18,409	43,435	3,277	46,712	3,756	50,46	
1967	24,383	18,434	42.817	3,079	45,896	4.624	50.52	
1968	25,487	18,696	44,183	3,462	47.645	4,202	51.84	
1969	28.573	19.606	48,179	3,794	51,973	4,435	56,40	
1970	29,532	20.977	50,509	3,717	54,226	4,436	58,66	
1971	30,479	22,269	52,748	3,145	55,893	6.075	61,96	
972	35,583	25,523	61,106	3,961	65,067	5,955	71.02	
1973	45,772	41,114	86,886	2,607	89,493	9.317	98.81	
1974	41,326	51,065	92,391	530	92,921	5.114	98.03	
1975	43.087	45.813	88,902	807	89,709	11,295	101.00	
1976	46,323	49,032	95,355	734	96,089	5.878	101.96	
1977	47,635	48,569	96,203	1,819	98,022	10.588	108,61	
1978	58,810	53,676	112,486	3.030	115,516	11.728	127.24	
1979	68,584	63,128	131.711	1,375	133,087	18,234	151.32	
1980	67,796	71,739	139,535	1.286	140.821	9,789	150,61	
1981	68,483	74,984	143,466	1.932	145.399	21,354	166,75	

[In millions of dollars]

Source USDA.

# CASH RECEIPTS FROM FARM MARKETINGS OF LIVESTOCK AND PRODUCTS, 5-YEAR AVERAGES 1910–39, ANNUAL 1940–81

(In millions of dollars)

Year	Cattle and calves	Hogs	Sheep and lambs	Dairy products	Eggs	Broilers and farm chickens	Turkeys and other poultry	Wool	Other	Total
910-14	901	677	109	628	326	128	26	. 49	104	2.948
915-19	1.540	1.343	161	1.050	520	200	34	99	125	5.072
920-24	1.120	1.071	152	1,346	597	272	44	79	54	4,735
925-29	1,382	1,296	211	1,672	690	340	61	99	46	5,797
930-34	. 1,382	680	124	1,204	409	227	51	61	25	3,592
935-39	1.174	856		1,204			79	86	74	4.577
	1,1/4		167		484	250			67	4,577
940		836	180	1,521	468	268	. 92	106		
941		1,302	226	1,900	663	364	116	138	78	6,492
942	2,263	2,198	306	2,330	1,018	538	170	133	83	9,039
943		2,929	342	2,785	1,446	926	202	82	118	11,493
944		2,800	300	2,915	1,365	862	241	144	119	11,351
945	. 3.318	2,263	319	3.021	1.518	1.004	295	126	144	12,008
946	3,761	2,917	363	3,709	1.508	928	318	119	163	13,786
947	4,967	3,926	402	4.013	1.813	870	274	105	157	16.527
948	r'oor	3,660	409	4,389	1.884	948	303	110	141	17,129
949	1 0 1 0	3,125	351	3,748	1.857	939	314	100	126	15,409
000	r coo	3,214	387	3,719	1,579	. 946	314	130	136	16.10
001	7 005	3,889	466	4,254	2.062	1.137	406	234	166	19,619
000										
952		3,464	391	4,567	1,801	1,118	411	123	157	18,238
953		3,483	317	4,366	2,073	1,136	393	129	148	16,923
954		3,455	325	4,114	1,627	1,000	386	129	152	16,276
955	5,245	2,694	316	4,217	1,777	1,070	377	91	180	15,967
956		2,638	330	4,485	1,834	1,023	397	104	199	16,363
957		3,062	330	4,628	1,682	1,024	370	141	195	17,376
958	. 7,322	3,367	358	4,557	1,833	1,147	373	72	198	19,227
959	. 7.834	2,784	334	4,604	1.545	1.045	401	108	249	18,904
960	. 7.380	2,869	325	4,760	1,738	1.122	433	108	234	18,989
961		3,152	297	4,933	1.750	1.039	423	109	251	19,514
962	8,182	3,162	319	4,860	1,703	1,142	417	114	259	20,158
963	8,113	3,033	313	4,861	1,747	1.154	443	112	271	20.047
964	7,785	3,034	318	5.027	1,770	1.156	455	113	290	19,948
965	8,942	3,607	329	5.038	1,785	1,1304	494	95	- 292	21.886
30J	. 0,342									
966		4,169	333	5,533	2,106	1,471	569	101	314	25,026
967		3,809	302	5,742	1,765	1,314	- 543	75	283	24,383
968	. 11,264	3,795	315	5,957	1,893	1,415	490	72	286	25,487
969		4,742	343	6,196	2,212	1,635	530	70	273	28,573
970	. 13,633	4,478	334	6,527	2,109	1,564	575	57	255	29,532
971	14,000	4,112	323	6,812	1,782	1,585	585	31	263	30,479
972		5,317	354	7,136	1.800	1,751	631	56	302	35,584
973		7.529	390	8.090	2,947	2,908	1.055	120	397	45,772
974		6.947	369	9,454	2.854	2,558	808	79	413	41.326
975	17 600	7,916	386	9,923	2.814	3.063	933	54	480	43.089
976		7,488	393	11.428	3,135	3,050	970	13	492	46.323

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# CASH RECEIPTS FROM FARM MARKETINGS OF LIVESTOCK AND PRODUCTS, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81—Continued

	[in millions of dollars]													
Year	Cattle and calves	Hogs	Sheep and lambs	Dairy products	Eggs	Broilers and farm chickens	Turkeys and other poultry	Wool	Other	Total				
1977 1978 1979	29 111	7,281 8,754	386 453 474	11,752 12,509	2,919 2,939	3,235 3,845	1,058 1,326	77 76	702 797	47,635 58,810				
1979 1980 1981	31,464	9,027 8,921 9,799	469 411	14,659 16,605 18,106	3,318 3,247 3,640	4,189 4,432 4,760	1,407 1,479 1,517	91 93 104	1,019 1,086 1,210	68,584 67,795 68,483				

Source: USDA.

### CASH RECEIPTS FROM FARM MARKETINGS OF CROPS (INCLUDING NET COMMODITY CREDIT CORPORATION LOANS), 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81

(In millions of dollars)

Year	Food grains	feed crops	Cotton (lint and seed)	Oil-bearing crops	Tobacco	Fruits and tree nots	Vegetzbies	Other	Total
1910-14	560	581	831	40	108	277	310	274	2.58
1915–19		994	1,530	68	263	434	511	430	5.50
920-24		813	1.342	61	267	584	560	487	5.06
925-29	882	713	1,490	82	254	620	645	440	5,12
930-34	340	359	645	45	182	419	479	313	2,78
935–39	502	434	757	87	274	457	530	376	3.41
940	479	500	638	126	242	446	559	379	3,45
	589	626	1.005	238	323	504	535	441	4.61
	977	839	1,272	525	475	844			
942							1.028	565	6.52
943		1,135	1,301	703	538	1,273	1,472	637	8,12
944	1,375	1,271	1,548	590	690	1,528	1,484	699	9,18
945	1,563	1,509	1,208	615	898	1,498	1,611	753	9,65
946	1,841	1,679	1,473	715	969	1,759	1,591	989	11,01
947	2,753	2,265	2,245	917	1,032	1,199	1,632	1,050	13,09
948	2,629	2,026	2,553	1,053	945	1,128	1,712	1,052	13,091
949	2.255	2.161	2.637	854	903	929	1.616	1.041	12.39
950	1,941	2,143	2,434	935	1.061	1.188	1,436	1.218	12,35
951		2.091	2.858	986	1,190	1,157	1,728	1,225	13 23
952	2,558	2,271	2,976	1.081	1.091	1.097	2.023	1,193	14.29
953	2.456	2,397	3,179	959	1.094	1.197	1.652	1.134	14.07
954		2,549	2,702	942	1,161	1,220	1,548	1,107	13.55
955	1,990	2,555	2,580	1.131	1.225	1,276	1.683	1,083	13.52
959 666	1,330								14.03
956	2,148	2,648	2,500	1,155	1,162	1,358	1,873	1,194	
957	1,868	2,395	1,756	1,181	971	1,292	1,710	1,165	12,33
958	2,442	2,904	2,138	1,410	1,020	1,394	1,736	1,185	14,22
959	2.232	2,770	2,686	1,274	1.060	1,514	1,861	1.346	14.74
960	2,450	2,985	2,362	1,362	1,254	1,529	1,980	1,435	15,25
361	2,468	2,776	2,469	1,622	1,325	1,610	1,910	1,470	15,65
962	2,507	2,964	2,551	1,789	1.321	1,578	2.029	1,571	16,31(
963 :	2.562	3.414	2.838	1.951	1.269	1.678	2.004	1.714	17.43
964	1,993	3,445	2.521	2.145	1.414	1,801	2.314	1,744	17,37
965	2,042	3,693	2,330	2,173	1,186	1,650	2.618	1,787	17.47
966	2,373	4,334	1.588	2,703	1.211	1.747	2.612	1.841	18.40
967	2,361	4.393	1.095	2,795	1,391	1,817	2.680	1,902	18.43
968	2.088	4,311	1,316	2,845	1.173	2.043	2,893	2.027	18.69
969	2,215	4,576	1.354	3,049	1,296	2,171	2,842	2.093	19,60
	2,213	5,109	1,304		1,250		2.814	2.208	20.97
				3,591		2,071			
	2,485	5,525	1,487	3,787	1,328	2,305	3,010	2,341	22.26
372	3,498	5,854	1,842	4,393	1,442	2,558	3,285	2,648	25,52
73	7,194	10,605	2,798	7,580	1,570	3,445	4,351	3,572	41,11
374	8,581	13,935	2,893	9,963	2,097	3,441	5,336	4,820	51,06
875	8,195	12,183	2,311	7,480	2,155	3,563	5,346	4,579	45,81
976	7,112	13,127	. 3,477	9,443	2,310	3,714	5.231	4,619	49,032
977	6.055	11,906	3,470	9,722	2,331	4,603	5,609	4,872	48,56
378 .	5.839	11,427	3,465	13,023	2,604	5,764	5,941	5.614	53.67
979	9.047	14.042	4,305	14.326	2.271	6.467	6,452	6,219	63,128
380	10,386	18.295	4,459	15,456	2.672	6.575	7.023	6.865	71,739
881	12,399						8,407	7,459	74,984
474/A	12,039	18,267	4,552	14,105	3,253	6,542	0,40/	1,403	/4,30

Source USDA.

		Number of	Land in	Value per		Real estate	value (millions	of dollars)	
Y.	ear	farms (thousands)	farms (thousand acres)	acre (dollars)	Land	Service structures	Total for farm use	Operator dwellings	Total
1940		6.350	1.061.000	32	23.235	4.928	28.163	5.473	33.636
		6,293	1.077.000	32	23.946	4,953	28,899	5,501	34,400
1942		6.202	1.093.000	34	26.432	5,266	31,698	5.849	37,547
		6.089	1,109,000	38	29,445	5,761	35,206	6.398	41.604
		6.003	1,125,000	43	34,539	6.472	41.011	7,189	48,200
		5,967	1.142.000	÷ 47	38.696	7,196	45,892	7,992	53.884
1946		5,926	1,145,000	53	44,077	8.040	52,117	8,929	61.046
1947		5,871	1.148.000	60	49,259	9,099	58,358	10,105	68,463
		5,803	1,152,000	64	52.650	9,956	62,606	11.058	73.664
		5,722	1.155.000	66	54,663	10,404	65.067	11,556	76.623
		5.648	1,202,019	65	54,695	10.852	65,547	12.053	77.600
		5,428	1,203,500	75	63,577	12,300	75.877	13,646	89,523
		5,198	1,204,930	82	70,264	13,355	83.619	14,833	98,452
		4,984	1.205.740	83	71.669	13,438	85,107	14,944	100.051
		4,798	1,206,355	82	71.033	13,080	84,113	14,541	98.654
		4,654	1,201,900	85	74,338	13,208	87,546	14,670	102.21
1056		4,514	1,197,070	90	78,898	13,551	92,449	15.054	107.503
1057		4.372	1,191,340	97 97	85,717	14,185	99,902	15,764	115.666
1059	••••••••••••••••••••••••••••••	4,233	1,184,944	103	91.089	14,105	105,630	16,124	121.754
1930		4,235	1,181,108	103	99.044	15,186	114,230	16.824	131.05
		3,963	1.174.061	117	104,792	15.344	120,136	17.026	137.162
		3,803	1,166,094	119	106,707	15.043	121,750	16,716	138.46
		3,692	1,157,748	125	112,228	15,281	127,509	17.039	144.54
			1,149,892	125	117,591	15,201	132,985	17,035	144,346
1903		3,457	1,145,052	131	125.058	15,394	132,985	17,693	158,55
1304			1,137,750	135	133.040	16,244	149,284	18,218	167.502
1303				159	143,172	17.010		19.029	179,211
1900		3,257	1,130,093 1,121,736	169	143,172	17,610	160,182 169,437	19,029	189,104
1907				179	161,292	18,160		20.248	199,700
1908		3,000	1,113,537	189	161,292	18,100	179,452		209,200
1909		3,000	1,106,058		176.177		188,446	20,754	
		2,949	1,101,117	196 204		18,740	194,917	20,866	215,78
	••••••	2,902	1,095,650		183,306	18,853	202,159	21,021	223,18
19/2		2,860	1,091,369	220	197,286	19,988	217,274	22,340	239,614
		2,823	1,087,883	246	220,376	22,183	242,559	24,774	267,333
1974		2,795	1,086,143	302	270,808	26,932	297,740	30,010	327,750
19/5		2,521	1,057,816	340	297,788	29,500	327,288	32,426	359,741
19/0		2,497	1,052,474	397	346,923	34,051	380,974	37,162	418,13
19//		2,456	1,046,186	474	411,992	40,601	452,592	43,774	496,366
			1,043,267	532	461,221	44,903	506,124	48,569	554,69
19/9		2,430	1,041,833	629	545,985	52,294	598,279	56,686	654,965
1980		. 2,428	1,040,863	726	632,113	59,299	691,412	64,443	755,854
			1,043,318	796	695,643	64,366	760,009	69,983	829,992
1987		2,437	1.044.415	789	693,996	61,996	755,993	67,830	823,822

Source: USDA.

### NET FARM INCOME (INCLUDING FARM HOUSEHOLDS) BEFORE INVENTORY ADJUSTMENT BY VALUE OF SALES CLASS, 1960–81

	-			Farms w	rith sales of-	-				
Year	\$500,000 and over	\$200,000 to \$499,999	\$100,000 and \$199,999	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to \$19,999	\$5,000 to \$9,999	\$2,500 to \$4,999	Less than \$2,500	All farms
				in	millions of a	dollars				
	NA	NA	709	1,243	1,834	2,532	2,120	1,192	1,491	11,121
. 1961	NA	NA	825	1,415	2,015	2,621	2,087	1,150	1,508	11,621
1962	NA	NA	878	1,518	2,100	2,592	1,909	1,022	1,425	11,444
1963	NA	NA	915	1,584	2,148	2,523	1,732	899	1,340	11,141
1964	NA	NA	1,011	1,432	2,261	2,623	1,735	885	1,362	11,309
1965	NA	NA	1,191	1,892	2,402	2,564	1,631	844	1,333	11,857
1966	NA	NA	1,917	2,592	3,081	2,690	1,599	866	1,298	14,043
1967	NA	NA	1,294	2,151	2,638	2,297	1,383	747	1,172	11,682
1968	NA	NA	1,448	2,343	2,862	2,296	1,364	741	1,144	12,198
1969	2,300	999	1,312	3,262	3,323	2,055	961	154	-172	14,194
1970	2,339	1,145	1,474	3,397	3,250	1,972	894		- 329	14,230
1971	2,244	1,263	1,602	3,410	3,034	1,750	726	- 50	- 604	13,375
1972	3,043	2,024	2,528	4,674	3,489	1,943	821	-18	- 459	18,045
1973	6,218	4,420	5,175	7,724	3,962	1,936	798	-12	204	30,017
1974	6,825	4,657	5,213	6,591	3,180	1,400	465	- 232	- 487	27,612
1975	6,278	3,776	4,139	5,076	2,226	915	238	- 305	- 496	21,847
1976	6,880	3,872	4,109	4,713	1,759	664	101	- 353	-712	21,033
1977	6,405	3,262	3,448	3,916	1,231	421	-2	- 391	- 827	17,463
1978	9,482	4,771	4,875	5,165	1,475	596	145	268	- 657	25,584
1979	11,244	5,359	5,094	4,504	951	319	15	- 273	- 479	26,734

### FARMS, LAND IN FARMS, AND FARM REAL ESTATE VALUE, 1940-82

### NET FARM INCOME (INCLUDING FARM HOUSEHOLDS) BEFORE INVENTORY ADJUSTMENT BY VALUE OF SALES CLASS, 1960-81—Continued

an 80	500,000 nd over 12,872 12,978 NA NA	\$200,000 to \$499,999 4,972 3,583	\$100,000 and \$199,999 4,210 2,949	\$40,000 to \$99,999 3,049 1,509 Per	\$20,000 to \$39,999 328 244	\$10,000 to \$19,999 	\$5,000 to \$9,999 - 169 - 331	\$2,500 \$0 \$4,999 - 364 - 462	Less than \$2,500 - 478 - 501	All farms 24,410 19.58
8) 60 51 52 53 54 55	12,978 NA	3,983 NA		1,509	244					
61 62 63 64 65	NA			Per						
61 62 63 64 65	NA				centage distr	tution				
62 63 64 65			5.4	11.2	16.5	22.8	19.0	10.7	13.4	100.
63 64 65		私私	11	12.2	17.3 18.4	22.6 22.6	18.0 16.7	9.9 8.9	12.9	100.
64 65	NA NA	NA NA	8.2	14.2	19.3	22.7	15.5	8.1	12.4 12.0	100
<u> 55</u>	NA	NA	8.9	12.7	20.0	23.2	15.3	7.8	12.0	100.
**	NA NA	NA.		16.0	20.0	23.2				100
	NA NA	NA	10.0				13.8 11.4	7.1	11.2	100
A 3			13.6	18.5	21.9	19.2		6.2	9.2	100
67	NA	NA.	]].]	. 18.4	22.6	19.7	11.8	6.4	10.0	100
<b>68</b>	NA.	NA	11.9	19.2	23.5	18.8	11.2	6.1	9.3	100
69	16.2	7.0	9.2	23.0	23.4	14.5	6.8	1.1	-1.2	100
70	16.4	8.0	10.4	23.9	22.8	13.9	6.3	.ô	-2.3	190
/1	16.8	9.4	12.0	25.5	22.7	13.1	5.4	4	-4.5	190
12	16.9	11.2	14.0	25.9	19.3	10.8	4.5	1	2.5	100
73	20.7	14.7	17.2	25.7	13.2	6.5	2.7	0	7	100.
74	24.7	16.9	18.9	23.9	11.5	5.0	1.7	8	-1.8	100
75	28.7	17.3	19.0	23.2	10.2	4.2	1.1	-1.4	-2.3	100.
76	32.7	18.4	19.5	22.4	8.4	3.2	.5	-17	- 3.4	100
77	36.7	18.7	19.7	22.4	7.0	2.4	Ö	-2.2	-4.7	100
78	37.1	18.6	19.0	20.2	5.8	23	.6	-1.0	-2.6	100
79	42.1	20.0	19.0	16.8	3.6	1.2	ĩ	-10	-1.8	100
50	52.7	20.4	17.2	12.5	1.3		_ 1	-1.5	-1.9	100
81	56.3	20.3	15.1	11	-12	-1.5		-2.4	-2.5	100

Source: USDA.

### NUMBER OF FARMS, BY VALUE OF SALES CLASS, 1960-81

•				Farms w	ith sates of-	_				
Year	\$500,000 and over	\$200,000 to \$499,999	\$100,000 and \$199,999	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to \$19,999	\$5,000 10 \$9,999	\$2,500 to \$4,999	Less than \$2,500	All farms
					in thousan	ds				
1960	NA	NA	23	90	227	497	660	617	1,849	3,963
1961	KA.	. NA	23 26 29 31 32 36 43 43 43 43 52 35	97	239	493	625	576	1,769	3.825
1962	NA	NA	29	106	254	493	589	533	1.688	3,692
1963	ŇA	NA.	31	113	267	491	557	495	1.618	3.572
1964	KA	NA	32	114	268	482	534	469	1.558	3,457
1965	NA.	NA.	<b>36</b>	125	280	464	568	461	1.482	3.356
1000	NA.	NA		143	304	445	476	457	1,389	3,257
1003	NA	NA.	13		299	431	460	445	1,342	3 162
	NA.		4 <u>2</u>	142	233				1,342	
1826	NA.	NA.	42	149	306	415	439	437	1,280	3,071
1969		11	32	155	304	369 362	381	368	1,376	3,000
1970	- 4	13	35	165	302	362	372	361	1,334	2,949
1971	5	15 20 36	40	174	. 300	355	364	354	1,295	2,902
1972	6	20	53 91	207	305	347	353	347	1.222	2,860
1973	10	36	91	308	327	335	332	334	1.050	2.823
1974	iĭ	- 40	001	330	330	329	324	329	1.002	2,795
1876	ii	20	95	315	315	314	310	314	809	2 521
		38 44								
1976	13		186	324	308	309	311	315	769	2,497
1977	13	45	109	322	302	363	308	311	743	2,456
1978	17	60	135	347	292	295	316	317	657	2,436
1979	22	11	167	377	283	288	327	326	563	2,430
1980	22 24	84	180	389	279	286	332	329	525	2.428
1981	25	87	186	396	278	286	335	332	511	2,436
		¥,								
•				Pa	centage dist	nibution (	• •			
1960	KA	MA		12	5.7	12.5	16.7	15.6	46.6	100.0
1441		KA	0.6	2.3			16.7	15.6		
1961	NA.	NA		2.5	6.3	12.9	16.3	15.1	46.2	100.0
1962	KA	NA.	.8	2.9	6.9	13.4	15.9	14.4	45.7	100.0
1963	NA	KĂ	.9	3.2	7.5	13.7	15.6	13.8	45.3	198.8
1964	NA.	NA.	.9 .9	3.3	7.8	13.9	15.4	13.6	45.1	100.0
1965	NA	NA	1.1	3.7	8.4	13.8	15.1	13.7	44.2	100.0
1966	NA	NA.	i i i i i i i i i i i i i i i i i i i	14	9.3	13.7	14.6	14.0	42.7	100.0
1967	- MA		iĩ	4.5	9.5	13.6	14.5	14.1	42.4	100.0
1000	MA		1.5	4.8	10.0	13.5	14.3	14.2	417	100.0
1300	RA.	<b>7</b> .4	1.3	9.0	10.0	13.3	14.3	14.2	41.7	100.0

				Farms w	ith sales of-	-				
Year	\$500,000 and over	\$200,000 to \$499,999	\$100,000 and \$199,999	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to . \$19,999	\$5,000 \$9,999	\$2,500 to \$4,999	Less than \$2,500	All . farms
1969	0.1	0.4	1.1	5.2	10.1	12.3	12.7	12.2	45.9	100.0
1970	.1	.5	1.2	5.6	10.3	12.3	12.6	12.2	45.2	100.0
1971	2	.5	1.4	6.0	10.3	12.2	12.6	12.2	44.6	100.0
1972	2	7	1.9	7.2	10.7	12.1	12.4	12.1	42.7	100.0
1072	.4	1.3	3.2	10.9	11.6	11.8	11.8	11.8	37.2	· 100.0
074	Å	14	3.6	11.8	11.8	11.8	11.6	11.8	35.8	100.
075		1.5	3.8	12.5	12.5	12.5	12.3	12.4	32.1	100.
976	.4	1.7	· 4.3	13.0	12.3	12.4	12.5	12.6	30.7	100.0
1977		1.8	4.4	13.1	12.3	12.4	12.5	12.7	30.3	100.
978		2.5	5.5	14.2	12.0	12.1	13.0	13.0	27.0	100.
979	.9	3.1	6.9	15.5	11.6	11.9	13.5	13.4	23.2	100.
1980	1.0	3.4	7.4	16.0	11.5	11.8	13.7	13.6	21.6	100.
1981	1.0	3.6	7.6	16.3	11.4	11.7	13.8	13.6	21.0	100.0

### NUMBER OF FARMS, BY VALUE OF SALES CLASS, 1960-81---Continued

Source USDA.

### FARM SECTOR CASH USES (EXCLUDING FARM HOUSEHOLDS) 1940-81

(In millions of dollars)

					Cash uses	,				
Year	. ta	termediate pro	oduct expense	<b>x</b>	Oneiners		Cash	Net rent		Cash income
	Fartn origin	Manufac- tured inputs	Other	Total	Business taxes	Interest	wages to hired labor	to all landlords	Total	from farming
1940	1,712	728	1,051	3,491	382	429	816	672	5,790	3,315
1941	1,927	812	1,140	3,879	395	453	1,013	967	6,707	4,948
1942		948	1,300	5,051	401	438	1,345	1,330	8,565	7,650
1943	3,449	1,071	1,535	6,055	413	402	1,687	1,551	10,108	10,157
1944		1,184	1,695	6,558	433	371	1,861	1,559	10,782	10,530
1945	4,184	1,309	1,725	7,218	485	356	1,952	1,579	11,590	10,81
1946		1,454	1,947	8,021	539	369	2,155	2,069	13,153	12,421
1947	5,639	1,732	2,354	9,725	644	406	2,374	2,146	15,295	14,639
1948	6,166	2,026	2,617	10,809	710	457	2,558	2,024	16,558	13,920
1949		2,254	2,712	10,062	770	504	2,418	1,647	15,401	12,589
1950		2,417	2,762	10,984	810	559	2,451	1,822	16,626	12,138
1951		2,604	3,208	12,944	874	651	2,559	1,997	19,025	14,161
1952		2,763	3,450	13,056	913	723	2,512	2,045	19,249	13,624
1953	5,641	2,791	3,462	11,894	943	729	2,407	1,752	47,725	13,573
1954	5,994	2,865	3,399	12,258	962	739	2,296	1,669	17,924	12,266
1955	5,985	2,911	3,568	12,464	1,018	791	2,336	1,524	18,133	11,709
1956	6,023	2,997	3,776	12,796	1,057	856	2,367	1,620	18,696	12,400
1957	6,479	2,956	4,012	13,447	1,117	923	2,457	1,486	19,430	11.469
1958	7,751	3,019	4,268	15,038	1,162	1,017	2,566	1,683	21,466	13,301
1959	7,928	3,227	5,076	16,231	1,279	1,148	2,305	1,497	22,460	12,096
1960	7,577	3,295	5,068	15,940	1,373	1,268	2,449	1,491	22,521	12,673
1961	8,037	3,475	5,043	16,555	1,449	1,347	2,538	1,720	23,609	13,291
1962		. 3,639	5,191	17,686	1,514	1,478	2,629	1,792	25,099	13,373
1963	9,235	3,854	5,236	18,325	1,573	1,654	2,718	1,914	26,184	13,274
1964	8,592	4,082	5,308	17,982	1,634	1,803	2,808	1,878	26,105	13,738 14,426
1965	9,306	4,284	5,466	19,056	1,707	1,986	2,900	2,140	27,789	14,420
1966		4,649	5,682	21,036	1,830	2,214	2,968	2,300	30,348	14,794
1967	10,891	5,127	5,971	21,989 22,303	1,944	2,460	3,047	2,146	31,586	15.628
1968	10,864 12,196	5,186 5,213	6,253 6,361	22,505	2,110 2.258	2,643 2,902	3,198 3,393	2,284 2,354	32,538 34.677	17.855
1969	12,196	5,213	6.526	25,216	2,238	3,211	3,393	2,334 2,403	36,829	17,055
1970	13,260				2,360		3,613	2,405	38,948	17,586
1971 1972		5,855 6.146	6,927 7.214	27,027 29,540	2,400	3,372	3,034	3.824	43.441	22.291
		7,202	8.090			3,700	4.289			34.452
1973	22,906		9,238	38,198	2,659	4,474		6,248	55,868	33,148
1974	21,584 19,999	10,757 12,354	9,238	41,579 42,708	2,853 2,956	5,509 5.973	5,038 5,456	5,641 5,145	60,620 62,238	28.477
1975 1976		12,334	11,398	42,708	3,237	6,703	6,213	4,818	68.389	28,733
		13,400	12.618	47,418 50.032	3,237	7,951	6,213	4,818 5,169	73.119	26,755
1977		15,891	12,018	56,455	3,394	9,531	6.895	5,109	81.703	35.264
1978 1979	27,254	15,274	15,926	56,455 68,004	3,539	12.150	7,781	5,485 6.061	97.628	37,973
		23.117	16,098	72,481	3,632 3,891	15,140	8,583	6,001	106.605	35.328
1980	32,508	25,117		76.044	4.224	18,967	0,363 9,162	7,405	115.802	29.514
1981	31,///	23,143	19,125	/0,044	4,224	10,30/	3,102	¢04,1	115,002	23,314

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Source: USDA.

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### FARM PRODUCTION EXPENSES, 5 YEAR AVERAGES 1910-19, ANNUAL 1940-81

					lifizer and time		Repairs and capital	operation of items	
Year	Feed purchased	Livestock purchased	Seed purchased	Fertilizer	Lime	Totai	Excluding fuel and operator dwellings	Including fuel and operator dwellings	Petroleum fuel and oits
910-14	403	214	64	165	5	170	NA	273	18
915-19	749	394	186	242	10	252	NA	470	- 14
928-24	915	312	128	263	17	280	NA	619	160
925–29	933	467	135	278	18	295	NA	797	258
930-34	510	238	98	172	11	183	NA	620	252
935-39	675	352	165	224	28	252	NA	842	306
940	998	517	197	256	50 47	305	554	1,038	350
941	1,089	635	203	287	47	334	588	1.132	402
942	1.625	877	301	359	58	417	690	1,289	444
943	2,135	908	406	439	66	505	828	1.465	474
344	2,427	812	440	479	97	576	932	1.608	505
45	2,738	1.011	435	542	115	657	957	1.689	544
46	3,022	1,170	428	571	112	683	1.125	2.054	643
47	3 746	1,379	514	640	115	755	1.346	2,468	823
348	3,996	1,589	- 581	729	97	826	1.536	2,818	1.005
49	3,024	1,529	543	789	105	895	1.581	2,896	1.134
950	3,283	2.004	518	868	107	975	932	2,975	1.192
51	4 144	2 437	551	959	105	1.064	1.802	3,282	1,250
52	4.331	1,918	594	1.078	106	1.184	1,959	3,506	1,288
53	3,770	1.320	551	1,099	79	1.178	1,932	3,541	1.338
54	3.906	1,563	525	1,136	13	1,209	1.891	3,506	1,366
	3,880	1,585		1,106	79	1.185	1.908	3.600	1,403
55	3.894	1,539	566 519	1.079	87	1,165	2.063	3,785	1.434
56			510		90		2,063	3,785	1,454
57	4,035	1,934		1,076		1,165			
58	4,541	2,702	508	1,113	93	1,206	2,195	3,921	1,447
59	4,744	2,693	491	1,238	94	1,332	2,381	4,116	1,447
80	4,552	2,506	519	1,252	92	1,344	2,241	3,982	1,484
61	4,763	2,729	545	1,343	94	1,437	2,151	3,976	1,508
162	5,187	3,104	565	1,446	98	1,544	2,189	3,993	1,512
b3	5,690	2,926	619	1,600	112	1.712	2,138	3,973	1,535
64	5,512	2.419	661	1,772	116	1.888	2.074	3,931	1,549
	5,674	2,912	720	1.877	117	1,994	2,095	3.943	1.567
66	6,401	3,514	760	2,098	121	2,219	2,238	4,164	1,616
67	5,646	3,431	814	2,317	112	2,429	2,432	4,409	1,65
168	6,357	3,676	831	2,323	111	2,434	2,444	4,387	1,66
69	7,100	4,225	871	2,209	103	2,312	2,464	4,507	1,712
178	8,028	4,324	928	2,340	95	2,435	2,584	4,539	1,711
871	8,049	5,123	1.072	2,563	91	2,654	2,704	4,707	1,722
	8,397	6,668	1.115	2,620	101	2,721	2,740	4,708	1.688
173	13,224	8.065	1,617	3,402	101	3,503	3,097	5.097	1,877
974	14,513	5,131	1.941	5,898	156	6.053	3,665	5.659	2,690
975	12,907	4,954	2,138	6,506	154	6,660	4,235	7,806	3,318
76	14,370	5,884	2.366	6,255	213	6.468	4,879	9,096	3,966
977	13,967	7.072	2,484	6,308	221	6.529	5,430	10,121	4,356
78	14,465	10.150	3.638	6.361	259	6,619	6.227	11,226	4.610
979	17,766	12.688	2,960	7.223	307	7.530	6,965	13,545	6,264
980	18,618	10,539	3,351	9,498	474	9,922	7.616	16,096	8,099
981									9,298
101	18,905	8,916	3,956	9,637	436	10,074	8,118	17,738	3,236

Source: USDA.

### FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81

(In millions of dollars)

		1	tired farm labor				Machine hire and custom work		
Vee	Cash v	wages		Total fam	n wages		in	Pesticides	
Year	Excluding contract labor	including contract labor	Value of perquisites	Excluding contract labor	Including contract izbor	Excluding contract labor	contract contract		
1910-14	NA	549	233	NA	782	NA	NA	.1	
1915-19	NA NA	814 965	326 352	NA NA	1,140	NA NA	NA NA	12	
1925-29	NA	956	342	NA NA	1,298	NA	NA NA	29	
1930-34	NA	598	213	NA	811	NA	NA	29	
1935–39	NA	707	213	NA	920	NA	NA	36	
1940	NA	816	213	NA	1,029	NA	NA	44	
1941	NA	1,013	236	NA	1,249	NA	NA	47	
1942	NA	1,345	286	NA	1,631	NA	MA	52	
1943	1. NA	1,687	340	NA	2,027	NA	NA	58	
1944	HA	1,851	341	NA	2,202	NA	NA	58 63 68	
1945	NA	1,952	34/	NA	2.299	NA	NA	58 77	
1946	NA	2.155	377	NA	2.532	NA	HA		

# FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81-Continued

			lired farm labor			Machine hire		
Year	Cash v	vages		Total farr	n wages	WO	rk	
tear	Excluding contract labor	Including contract labor	Value of perquisites	Excluding contract labor	Including contract labor	Excluding Including contract contract labor labor		Pesticides
1947	NA	2,374	409	NA	2.783	NA	NA	98
1948	NA	2,558	432	NA	2,990	NA	NA	118
1949	NA	2,418	388	NA	2,806	NA	NA	139
1950	NA	2,451	360	NA	2 811	45	NA	179
1951	NA	2,548	373	NA	2,921	96	NA	195
1952	NA	2,501	356	NA	2,857	160	NA	190
1953	NA	2,395	341	NA	2,736	192	NA	155
1954	NA	2,279	317	NA	2,596	231	NA	155
1955	NA	2,307	308	NA		282	NA	
1056	NA	2,336	305	NA	2,615	331	NA	200
1956 1957	NA	2,330	312	NA	2,641			269
	NA				2,734	409	NA	194
		2,529	313	NA	2,842	554	NA	226
1959	2,260	2,567	339	2,599	2,906	583	890	286
1960	2,393	2,701	361	2,754	3,062	645	953	290
1961	2,479	2,811	381	2,860	3,192	613	945	330
1962	2,564	2,902	397	2,961	3,299	622	960	368
1963	2,640	2,980	420	3,060	3,400	661	1,001	379
1964	2,726	3,069	414	3,140	3,483	. 657	1,000	402
1965	2,813	3,194	410	3,223	3,604	735	1,116	474
1966	2,859	3.256	427	3,286	3,683	765	1.162	562
1967	2,928	3,298	425	3,353	3,723	868	1,238	791
1968	3.072	3,488	432	3,504	3,920	904	1.320	827
1969	3,249	3,694	458	3,707	4,152	943	1,388	906
1970	3,463	3.854	486	3,950	4.340	913	1,304	960
1971	3,464	3.864	507	3,971	4,372	1.041	1,442	1.143
1972	3,601	4.024	533	4.134	4,557	1.052	1,442	
1070	4.053	4,535	632	4,134		1,052		1,367
1074	4,055		740		5,167		1,784	1,414
		5,336		5,501	6,075	1,302	1,877	1,513
1975	5,148	5,779	808	5,956	6,586	1,541	2,171	1,783
1976	5,877	6,607	904	6,781	7,510	1,546	2,275	2,108
1977	6,213	6,995	959	7,172	7,953	1,682	2,464	1,938
1978	6,489	7,317	1,031	7,520	8,348	1,776	2,604	2,656
1979	7,312	8,256	1,173	8,484	9,429	2,257	3,202	3,057
1980	8,057	9,112	1,299	9,356	10,411	2,247	3,302	3,317
1981	8.523	9,653	1.461	9,984	11,114	2,940	4.070	3,727

[In millions of dollars]

Source: USDA.

### FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81

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[In millions of dollars]

		Other operati	ng expenses		Interest		Tax	es
Year	Electricity	Fueluding	Including	Interest an	Interest on rea	al estate debt	Funtudina	In studies
TE21	Electricity	Excluding operator dwellings	Including operator dwellings	Interest on nonreal estate debt	Excluding operator dwellings	Including operator dwellings	Excluding operator dwellings	Including operator dwellings
910-14 915-19 920-24 925-29	1 3 6	NA NA NA	374 543 595 602	225 319 463 365	NA NA NA	250 385 646	NA NA NA	23 34 58 61
930-34 935-39 940	17 20 28 29	NA NA 497 552	474 500 526	242 150 186 216	NA NA 243 237	510 345 293	NA NA 382	522 441 45 46
942 943 944	35 34 36	610 707 763	583 640 738 795	210 195 177	228 207 194	284 272 246 230	395 401 413 433	46 47 49
945 946 947 948	40 51 56 73	768 822 1,008 . 1.081	804 863 1,053 1,130	169 183 214 259	187 186 192 198	221 219 225 232	485 539 644 710	55 61 73 80
949 950 951 952	86 71 95 101	1,131 1,129 1,310	1,181 1,179 1,373	296 334 401	208 225 250 271	243 264 291 318	770 810 874	87 91 98
953 954 955	120 123 123	1,331 1,338 1,307 1,378	1,399 1,399 . 1,367 1,439	452 432 420 442	297 319 349	318 345 371 402	913 943 962 1,018	1,03 1,06 1,08 1,14
956 957	128 132	1,382 1,442	1,441 1,507	469 499	387 424	442 482	1,057 1,117	1,17

### FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81-Continued

	Electricity	Other operati	ng expenses		Interest		Tax	es	
*æ	Electricity		including				Taxes		
	Electricity			1-4	interest on rea	i estate debt	F		
58 59 60	140	dwellings	operator dwellings	interest on nonreat estate debt	Excluding operator dwellings	including operator dwellings	operator dwellings	operator dwellings	
	140	1,519	1,586	565	452	521	1,162	1,306	
							1,279	1,429	
			1,962				1,373	1,529	
		1,947	2,035				1,449	1,609	
		2,042	2,140	809	669	759	1.514	1.677	
	228	2,097	2,203	905	749	846	1.573	1.737	
	243	2,234	2,350	958	845	952	1.634	1,798	
	249	2 255	2 371	1.028			1 707	1.874	
				1142				2,002	
				1 271				2 122	
				1,216		1 472		2.298	
•••••••••••••••••••••••••••••••••••••••						1,675		2,456	
			2,010					2,596	
			2,9/3			1,900		2,704	
			3,199	1,/0/		2,152		2,815	
			3,415	2,211		2,495		2,886	
·····						3,044	2,853	3,096	
		3,949	4,203				2.956	3,193	
		4,244	4,523			3,852	3,237	3,491	
			5,096	3,971		4,365	3,394	3,660	
	1.389	5,096	5.557	4,902	4,629	5.073	3.339	3.603	
	1.641	5,931	6,485	6.576	5.574	6,102	3.632	3,910	
		5 938	6 517	8 455		7 309	3 891	4,185	
		6 937	7 659	10 8 38		8 878	4 224	4,543	
	-	162           177           200           215           228           243           249           250           250           263           278           304           -           317           311           409           501           594           1,859           1,669           1,869           1,869           1,869           1,869           1,869           1,869           1,869           1,870           1,780	162         1885           177         1.875           200         1.947           215         2.042           228         2.097           243         2.234           249         2.252           250         2.382           263         2.489           263         2.689           304         2.638           -         337           278         2.097           307         2.781           -         337           2.638         3.049           501         3.696           502         5.91           3.899         5.94           5.94         3.949           5.95         1.389           5.961         1.641           1.659         4.725           1.641         5.938           1.780         5.338	162         1605         1885           177         1,947         2,035           200         1,947         2,035           215         2,042         2,140           228         2,097         2,203           243         2,234         2,350           244         2,255         2,311           252         2,827         2,828           263         2,489         2,538           256         2,301         2,439           263         2,489         2,538           278         2,509         2,671           307         2,781         2,973           317         2,799         3,199           409         3,209         3,415           501         3,696         3,226           594         3,949         4,203           1,069         4,725         5,931           6,456         1,389         5,951           1,641         5,931         6,455           1,780         5,938         6,517	162         1805         1885         650           177         1874         1952         719           200         1947         2,035         741           201         2,042         2,140         809           228         2,097         2,203         905           243         2,234         2,350         958           243         2,234         2,350         958           243         2,234         2,350         958           252         2,282         2,409         1,42           250         2,301         2,439         1,21           263         2,489         2,639         1,818           378         2,509         2,671         1,434           304         2,638         2,816         1,618           -         337         2,781         2,973         1,646           -         371         2,999         3,199         1,546           -         371         2,993         3,919         1,546           -         371         2,993         3,919         1,546           -         371         2,999         3,191         2,211	162         1805         1885         650         498           177         1.874         1.962         719         549           200         1.947         2.035         741         606           215         2.042         2.140         809         669           228         2.097         2.203         905         749           243         2.234         2.307         1.028         958           252         2.301         2.439         1.271         1.172           253         2.482         2.639         1.318         1.328           254         2.301         2.439         1.271         1.189           253         2.482         2.639         1.318         1.328           254         2.509         2.671         1.434         1.645           278         2.509         2.671         1.434         1.645           371         2.989         3.199         1.767         1.933           -         337         2.781         2.913         1.645         1.265           -         317         2.999         3.195         2.714         2.763           501         3.696 <td>162         1805         1885         650         498         572           177         1.874         1.962         719         549         628           200         1.947         2.035         741         606         628           215         2.042         2.140         809         669         759           228         2.097         2.203         905         749         846           243         2.234         2.350         958         845         952           243         2.234         2.369         1.42         1.072         1.98           252         2.821         2.439         1.271         1.189         1.325           253         2.489         6.539         1.318         1.325         1.472           253         2.489         2.639         1.318         1.325         1.472           2543         2.489         2.639         1.318         1.325         1.472           278         2.509         2.671         1.434         1.468         1.625           371         2.989         3.199         1.767         1.933         2.135           371         2.989         3.1</td> <td>162         1885         650         498         572         1279           177         1.874         1.962         719         549         628         1373           200         1.947         2.035         741         666         686         1.449           215         2.042         2.140         809         669         759         1.514           228         2.097         2.203         905         749         846         1.573           243         2.234         2.350         958         845         952         1.634           249         2.255         2.371         1.028         958         1.075         1.707           252         2.282         2.409         1.142         1.072         1.189         1.325         1.944           263         2.489         2.639         1.318         1.325         1.947         2.110           253         2.301         2.439         1.271         1.189         1.325         1.944           263         2.481         2.509         2.671         1.434         1.468         1.625         2.258           304         2.638         2.816         1.618</td>	162         1805         1885         650         498         572           177         1.874         1.962         719         549         628           200         1.947         2.035         741         606         628           215         2.042         2.140         809         669         759           228         2.097         2.203         905         749         846           243         2.234         2.350         958         845         952           243         2.234         2.369         1.42         1.072         1.98           252         2.821         2.439         1.271         1.189         1.325           253         2.489         6.539         1.318         1.325         1.472           253         2.489         2.639         1.318         1.325         1.472           2543         2.489         2.639         1.318         1.325         1.472           278         2.509         2.671         1.434         1.468         1.625           371         2.989         3.199         1.767         1.933         2.135           371         2.989         3.1	162         1885         650         498         572         1279           177         1.874         1.962         719         549         628         1373           200         1.947         2.035         741         666         686         1.449           215         2.042         2.140         809         669         759         1.514           228         2.097         2.203         905         749         846         1.573           243         2.234         2.350         958         845         952         1.634           249         2.255         2.371         1.028         958         1.075         1.707           252         2.282         2.409         1.142         1.072         1.189         1.325         1.944           263         2.489         2.639         1.318         1.325         1.947         2.110           253         2.301         2.439         1.271         1.189         1.325         1.944           263         2.481         2.509         2.671         1.434         1.468         1.625         2.258           304         2.638         2.816         1.618	

Source: USDA.

### FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81

	Depreci	iation	Net	t rent to landlor	ds	Total producti	on expenses
Year	Excluding operator dwellings	including operator dwellings	Nonoperating landlords	Operating iandiords	All landlords	Excluding operator dwellings	Including operator dwellings
0-14	NA	458	338	NA	NA	NA	3,79
5-19	NA	756	710	NA	NA	NA	6,18
U-74	NA	1.016	425	NA	HA	NA	7,31
5-29	NA	893	479	NA	NA	NA	7.52
0-34	NA	768	185	NA	NA	NA	5.20
5–39	NA	760	361	NA	NA	NA	5.82
0	661	797	448	224	672	6.664	6.8
1	719	870	647	320	967	7,662	1.7
2	1.161	1.335	890	440	1,330	10/012	10.0
3	1,169	1,369	1.044	507	1,551	11 617	11.6
4	1,201	1,425	1.043	516	1.559	12.324	12.3
5	1.072			515			
		1,310	1,054		1,579	13,009	13,0
	931	1,189	1,401	668	2,069	14,461	14,5
2	1,237	1,553	1,455	691	2,146	16,941	17,0
<b>8</b>	1,647	2.002	1,370	654	2.024	18,637	18,7
9	2,022	2,365	1,107	540	1,647	17,811	17,9
0	2,301	2,665	1,233	589	1,822	19,287	19,4
1	2,712	3,147	1,368	629	1,997	22,099	22,3
2	2.911	3.325	1.421	624	2.045	22.505	22.7
3	3.029	3.454	1.214	538	1.752	21.083	21.4
	3,129	3,581	1 159	510	1.669	21,353	21.8
5	3,219	3,700	1.057	467	1.524	21 631	221
6	3,269	3,723	1 109	511	1.620	22 230	22.7
ž	3,430	3 913	1.029	457	1.486	23.137	23.7
•	3,530	4.011	1,161	522	1,683	25.272	25.7
							£3.(
	3,736	4,251	1,077	420	1,497	26,490	27,1
	3,773	4,337	1,124	367	1,491	26,599	27.3
	3,802	4,388	1,346	374	1,720	27,733	28.5
2	3,915	4,530	1,467	325	1,792	29,346	30,2
3	4,043	4,696	1,623	291	1,914	30,569	31,5
	4,201	4,903	1.655	223	1,878	30.638	31.8
5	4,360	5.111	1.885	254	2,148	32,472	33.6
5	4,626	5 384	2 823	211	2 300	35,292	36.5
1	4,967	5 781	1 882	264	2 146	36 859	38 1
8	5.348	6,200	1,999	285	2,284	38,192	39.5
	5.655	6 574	2.061	293	2.354	40.646	42 1
y 9	5,850	6,765	2,095	293	2,334	43,016	ű

(In millions of dollars)

### 33

### FARM PRODUCTION EXPENSES, 5-YEAR AVERAGES 1910-39, ANNUAL 1940-81-Continued

		[In millions of dollars]											
	Depreci	ation	Net	t rent to landlor	Total producti	Total production expenses							
Year	Excluding operator dwellings	Including operator dwellings	Nonoperating landlords	Operating landlords	All landlords	Excluding operator dwellings	Including operator dwellings						
971 972 973 974 975 976 976 977 978 978 999 980	6,362 6,812 7,665 9,129 10,878 11,959 13,510 14,833 16,739 18,532 19,994	7,354 7,893 8,951 10,569 12,582 13,798 15,717 17,354 19,686 22,003 23,779	2,116 3,356 5,500 4,968 4,531 4,238 4,553 4,831 5,340 5,737 6,526	311 468 748 673 614 580 616 652 721 773 773	2,427 3,824 6,248 5,641 5,145 4,818 5,169 5,483 6,061 6,510 7,405	45,647 50,602 63,929 70,212 73,616 80,915 87,228 97,161 115,071 125,910 136,618	47,19 52,11 65,38 72,03 75,75 83,30 90,17 100,58 118,97 130,48 141,63						

Source: USDA.

### BALANCE SHEET OF THE FARMING SECTOR (EXCLUDING FARM HOUSEHOLDS), AVERAGE PER FARM, CURRENT PRICES, JANUARY 1, SELECTED YEARS, 1940–82

ltem	1940	1950	1960	1970	1980	1981	1982
ASSETS			•				
Physical assets:							
Real estate	\$4,435	\$11,606	\$30,318	\$66,093	\$284,786	\$312,015	\$310,211
Nonreal estate:							
Livestock and pouttry Machinery and motor vehicles	808	2,283	3,848	7,962	25,280	24,964	22,001
Machinery and motor vehicles	391	1,908	4,881	9,627	37,418	39,832	43,285
Crops stored on and off farms Financial assets:	420	1,344	1,952	3,703	13,812	14,740	14,987
Demand deposits and currency	319	1,235	1,569	2,162	3,000	3,020	3,110
Investments in cooperatives	131	364	1,071	2,442	8,300	9,098	10.010
· -							
Total	6,504	18,740	43,639	91,989	372,596	403,670	403,604
CLAIMS							
Liabilities:							
Real estate debt	868	835	2,671	8,935	31,082	34,512	38,292
Nonreal estate debt:							
Excluding CCC loans	435	845	2,706	6,784	27,576	30,417	32,932
CCC loans	70	305	294	907	2,088	2,044	_3,286
Total liabilities	1,373 5,131	1,985	5,671	16,626	60,746	66,697	74,510
Proprietors' equity	5,131	16,759	37,968	75,363	311,850	336,973	329,094
Total	6,504	18,740	43,639	91,989	372,596	403,670	403,604
 Debt-to-asset ratio (percent)	21.1	10.6	13.0	18.1	16.3	16.5	18.5

Source: USDA.

### TOTAL FARM DEBT OUTSTANDING (EXCLUDING FARM HOUSEHOLDS), JANUARY 1, 1940-82

[Dollar amounts in millions]

		No	onreal estate deb	ıt	Total	debt
Year	Reat estate Excluding CCC		Price support and storage loans made or guaranteed by CCC	Including CCC	Excluding CCC loans	Including CCC loans
1940           1941           1942           1943           1943           1944           1945           1946           1947           1948           1949	\$5,512 5,454 5,381 5,040 4,592 4,210 4,065 4,172 4,305 4,490	\$2,762 3,079 3,205 2,916 2,659 2,507 2,546 3,188 3,785 4,568	\$445 629 610 733 589 683 277 65 84 1.152	\$3,207 3,708 3,815 3,649 3,248 3,190 2,923 3,253 3,869 5,720	\$8,274 8,533 8,596 7,956 7,251 6,717 6,711 7,360 8,090 9,058	- \$8,719 9,162 9,196 8,689 7,840 7,400 6,988 7,425 8,174 10,210

### TOTAL FARM DEBT OUTSTANDING (EXCLUDING FARM HOUSEHOLDS), JANUARY 1, 1940-82-Continued

		X	onreal estate del	X	Iotai	debt
Year	Real estate	Excluding CCC	Price support and storage loans made or guaranteed by CCC	including COC	Excluding CCC loans	Including CCC loans
ie	4.714	4.775	1.721	6.495	9,489	11.2
1		5.681	812	6,493	10.865	11.6
2	5,657	6,863	588	7,451	12,520	13.10
3	6,161	7.123	1.184	8 307	13,284	14.4
4	6,602	6,309	2,391	8,700	12.911	15.3
5	7.058	6.673	2 219	8,892	13,731	15.9
6	7,750	7,340	1,870	9,210	15,090	16.9
,	8,486	7.386	1.563	8,949	15,872	17.4
8	9,012	8,184	1215	9,399	17.196	18.4
9	9,671	9,374	2 473	11.847	19.945	21.5
Ö		10.723	1,165	11.888	21,307	22
1	11,269	11,136	1,390	12,526	22,405	23.3
2	12,259	11.820	1,856	13,686	24,079	25.9
3	13.424	13,184	2.055	15,239	26,608	28.0
4	14,922	14.531	1.926	16.457	29,453	31.3
5	16.835	15 307	1.543	16,850	32,142	33.6
6	18,941	16,895	1.408	18,303	35.836	37.2
Ĩ	20,677	18,525	1,157	19,682	39,202	40.3
8	22,603	19.593	1.420	21.013	42,196	43.6
9	24.686	19,192	2.671	21,863	43,878	46.5
Ö	26.352	20.005	2.676	22.681	46,367	49.0
i	27,493	21.854	1.876	22,930	48,547	
2	29,213	23,368	2,262		48,547 52,581	50,
2	32,433		1,793	25,630		54,8
3		26,357	750	28,150	58,790	60
1	37,548	30,534 33,474	319	31,284	67,992	68.2
5	42,054			33,793	75.528	75,
§	46.438	37.453	375	37,838	83,901	84.2
7	51,488	42,920	1,040	43,960	94,408	95,4
8	58,071	48,643	4,540	53,183	106,714	111,2
9	64,602	56,940	5,666	62,606	121,542	127,2
Q	75,461	66,950	5,070	72,020	142,411	147.4
1	84,054	74,098	4,978	79,068	158,154	163,1
21	93,318	80,256	8,008	88,265	173,574	181,5
indian field in the state						
entage distribution of debts:				** *		
1940	63.2	31.7	5.1	36.8	94.9	10
1960	47.1	47.7	5.2	52.9	94.8	10
1980	51.2	45.4	3.4	48.8	96.6	10
1981	51.5	45.4	3.1	48.5	97.0	10
1982 •	51.4	44.2	4.4	48.6	95.6	10

(Dollar amounts in millions)

<sup>1</sup> Preliminary.

Source: USDA.

# PER FARM DIRECT GOVERNMENT PAYMENTS, BY VALUE OR SALES CLASS, 1960-81

				Farm 1	with sales o	1—				
Year	\$500,000 and over	\$200,000 to \$499,999	\$100,000 to \$199,000	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to \$19,999	\$5,000 \$9,999	\$2,500 to \$4,999	Less than \$2,500	All farms
960  961  963  963  964  965  965  966  966  968	NA NA NA	NA NA NA NA NA NA S10,965	\$1,304 2,769 3,103 2,903 3,688 4,083 7,814 7,674 8,867 7,679	\$856 1,825 1,981 1,823 2,281 2,480 3,979 3,979 3,978 4,081 4,081 4,472	\$489 1,046 1,217 1,184 1,537 1,739 2,342 2,516 2,832	\$320 684 866 854 1.168 1.351 1.593 1.554 1.711 1.921	\$218 467 543 531 695 780 847 835 961 1,369	\$131 280 323 309 401 451 547 547 547 547 588 905	\$54 115 136 130 173 194 215 207 231 275	\$1177 390 473 475 631 734 1,006 974 1,127 1,264
1970 1971 1972 1973 1973 1974 1975 1976 1977	29,795 25,071 29,834 16,599 4,132 6,649 5,812 14,420	10,555 8,768 10,195 5,372 1,008 1,623 1,418 3,519	7,331 6,073 7,025 3,655 629 1,012 884 2,194	4,305 3,577 4,161 2,195 411 662 578 1,435	2,734 2,280 2,671 1,433 302 487 425 1,056	1,855 1,548 1,817 978 204 328 286 7,711	1,074 1,114 1,057 573 128 207 181 448	531 518 590 295 36 57 50 124	251 222 261 140 25 38 33 83	1,260 1,084 1,385 923 190 320 210 741

				Farm v	with sales o	<b>i</b> —				
Year	\$500,000 and over	\$200,000 to \$499,999	\$100,000 to \$199,000	\$40,000 to \$99,999	\$20,000 to \$39,999	\$10,000 to \$19,999	\$5,000 to \$9,999	\$2,500 to \$4,999	Less than \$2,500	All farms
1978	21,774	5,313	3,313	2,167	1,594	1,073	677	188	125	1,244
1979	8,880	2,167	1,351	884	650	438	276	76	51	566
1980	7,973	1,946	1,213	793	584	393	248	69	46	530
1981	11,736	2,864	1,876	1,168	859	578	365	101	67	793

### PER FARM DIRECT GOVERNMENT PAYMENTS, BY VALUE OR SALES CLASS, 1960-81-Continued

Source: USDA.

.

### **GOVERNMENT PAYMENTS, BY PROGRAMS, 1949-81**

[In millions of dollars]

Year	Conserva- tion	Sugar Act	Wool	Feed grain	Wheat	Cotton	Cropland adjust- ment	Miscella- neous	Total
949	156	30	NA	NA	NA	NA	NA	NA	18
950	246	37	NA	· NA	NA	NA	NA	NA	28
AC1	246	<b>4</b> 0	NA	NA	NA	ŇĂ	ŇĂ	NA	28
020	242	33	NA	NA	NA	NA	NA	NA	27
023		32	ŇĂ	NA	NA	NA			
Ar 1	181						NA	NA	21
954	217	40	NA	NA	NA	NA	NA	NA	25
955	188	41	NA	NA	NA	NA	NA	NA	22
956	220	37	54	NA	NA	NA	NA	243	55
957	230	32	53	NA	NA	NA	NA	700	1.01
958	215	44	14	NA	NA	NA	NA	815	1.08
959	233	44	82	NA	NA	NA	ŇĂ	323	68
60	223	50	· 51	NA	NA	NA	ŇĂ	370	70
ne 1	236	59 53	51 56 54	772	42	NA	NA	334	1 40
20		64							1,40
	230		24	841	253	NA	NA	304	1,/4
	231	67	37	843	215	NA	NA	304	1,69
164	236	79	25	1,163	438	39	NA	199	2,18
165	224	75	18	1,391	525	70	NA	160	2,46
166	231	71	34	1,293	679	773	51	145	3.27
367	237	70	29	865	731	932	85	129	3.07
68	229	75	66	1.366	747	787	81	112	3 46
69	204	78	61	1,643	858	828	78	43	3 70
74	208	88	49	1,504	871	919	76	2	271
71	173	80	69		878	313	67	ź	3,11
				1,054		822		4	3,14
	198	82	110	1,845	856	813	52	6	3,96
	72	82	65	1,142	474	718	47	7	2,60
)74	192	78	1	101	70	42	41	6	53
175	193	61	13	279	11	138	37	9	80
176	209	1	39	196	135	108	20	26	73
177	328	65	39 5	187	887	00		257	1.81
78	239	ŏ	27	1.172	963	127	NA	502	3,03
70	193	NĂ	33	494	114	185	NA	356	1 27
	133	INA NA	33	434	114	100			1,3/
	214	NA.	28	382	211	1/2	NA	278	1,28
981	201	NA	35	243	624	222	NA	607	1.93

Source: USDA.

### RETURNS FROM U.S. FARM PRODUCTION INCOME TO EQUITY IN FARM ASSETS (EXCLUDING FARM HOUSEHOLDS), MARKET VALUE BASIS, 1940–81

[Dollar amounts in billions]

Year	Income Less return returns to to-				Less interest on—				
	farm assets and operators' labor and manage- ment	Operators' labor	Manage- ment	Equals residual income to farm assets	Real estate debt	Nonreal estate debt	Equals residual income to equity	Equity in farm assets (market basis)	Income return as percentage of equity value
1940 1941	\$5.2 7.4	\$3.3 4.0	\$0.4 .5	\$1.5 3.0	\$0.2 .2	\$0.2 .2	\$1.1 2.5	\$32.6 33.8	3.4 7.4
1942 1943 1944 1945	11.0 13.1 13.0 13.5	5.4 7.1 8.7 9.0	./ .9 .9	4.9 5.1 3.4 3.6	2	.2 .2 .2	4.5 4.7 3.0 3.3	40.4 50.5 60.0 67.5	11.1 9.3 5.0 4.8
1945 1946 1947 1948	16.5 16.9 19.1	9.0 9.4 9.1 9.3	1.1 1.2 1.3	5.0 6.0 8.5	.2 .2 .2 .2	.2 .2 .3	5.7 6.2 8.0	74.8 84.2 92.6	4.0 7.6 7.4 8.7

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### RETURNS FROM U.S. FARM PRODUCTION INCOME TO EQUITY IN FARM ASSETS (EXCLUDING FARM HOUSEHOLDS), MARKET VALUE BASIS, 1940-81.—Continued

Year	income returns to		Less returns imputed		Less interest on-				
	farm assets and operators' tabor and manage- ment	Operators' labor	Manage- Rient	Equals residual income to farm assets	Real estate debt	Nonreai estate debt	Equals residual income to equity	Equity in farm assets (market casis)	income return as percentage of equity value
49	14.0	8.2	1.1	4.7	.2	3	4.2	96.2	4
50	15.0	7.6	1.2	6.2	2	3	5.6	94.6	5
51	17.5	8.8	i.i	7.3	3	1	67	110.8	6
78	16.5	<b>1</b> 0	- ii	63	*****		5.6	122.9	ī
FA	14.3	8.7	13	0.3	, e,		3.6	119.3	3
				1.1	<u>د</u> .	-			
54	13.8	8.2	1.3	4.3			3.6	115.1	3
55	12.6	7.9	1.2	3.5	.3		2.7	118.1	2
56	12.7	1.1	1.2	3.7	.4	.5 .5 .6	2.9	120.8	2
57	12.5	7.0	13	4.2		.5	3,3	128.9	2
58	14.8	6.3	17	6.5		Ä	5.5	136.0	ē
59	12.3	6.9	13	4.0	ž	"	2.9	1417	i
20	13.2		ii	5.4		j.	ü	150.5	ż
		6.4			.4 .5 .5 .5 .6 .7				
61	13.9	0.1	1.5	6.4	<u>6</u> .		5.9	150.9	3
62	14.3	5.8	1.5	7.0		.8	5.5	156.7	3
63	14.3	5.7	1.5	7.0	.1	.9	5.4	161.6	3
64	13.2	5.4	1.5	6.2	.8	1.0	4.4	166.5	2
65	16.0	4.8	1.7	9.5	1.0	1.0	7.5	171 8	
ee	17.3		1.8	10.7	ii	i.i	8.5	184.3	
47	15.7	2.0	1.8	8.8	12	ü	6.3	194.0	-
-A		3.2							
<b>58</b>	16.0	5.3	1.9	8.8	13	1.3	6.1	203.0	3
69	18.2	5.5	2.0	10.7	1.5	1.4	7.8	213.4	
70	18.4	5.3	2.1	11.0	1.6	1.6	1.1	222.3	
71	19.1	5.6	2.2	11.3	1.7	1.6	7.9	230.7	
72	24.6	54	2.5	16.6	1.9	1.8	12.9	249.1	
79	41.9		3.6	32.8	23	2.2	28.3	281.6	IČ
	34.5	5.0	3.6	25.0		21	19.5	350.9	
3.0		3.3			2.8			356.6	
75	33.3	5.6	3.8	24.8	3.1	2.9	18.0		
76	26.7	5.2	3.7	17.9	3.5	3.2	11.2	425.8	2
	27.4	5.5	3.9	18.0	4.0	4.8	10.0	494.2	2
78	37.0	5.4	4.6	27.1	4.6	4.9	17.5	544.0	
79	44.9	53	54	34.2	5.6	6.6	22.1	654.6	1
<b>30</b>	35.2	53	5.4	24.6	67	8.5	9.5	757.1	i
81	44.0	5.3	6.2	32.6	8.1	10.8	13.6	\$20.1	i

(Dollar amounts in billions)

Source: USDA

# RETURNS TO EQUITY IN FARM ASSETS (EXCLUDING FARM HOUSEHOLDS) FROM U.S. FARM PRODUCTION INCOME AND REAL CAPITAL GAINS, MARKET VALUE BASIS, 1940–81

(UCHAR BRIDGERS IN COMORIS)									
	Residual income to equity	Nominal capital gains on farm asset values	Real capital gains	Equity value of farm assets	Return as a percentage of equity value				
Year					From residual income	From real capital gains	Total		
1940	<b>S</b> 1.1	\$1.2	\$0.8	\$32.6	3.4	2.4	\$5.8		
1941	2.5	46		33 8	24	2.4	9.8		
1048	11	71	10	40 A	111	<u>\$</u> 7	20.8		
1843	11	1			10.1	<b>5</b> 4	117		
		0.4	14	39.3	3.3		11.6		
1944	3.0	2.4	3.9	00.0	3.4	0.0	11.0		
1945	3.3	5.4	4.8	6/.5	4.8	1.2	14.4		
1946	5.7	7.6	-4,9	74.8	7.6	- 5.5	1.1		
1947	62	66	-17	84.2	- 14	-2.1	5.3		
1040	8.0	2.0	17	92.6	87	1.8	10.5		
1848	42	9.V	1.2	06.7	12	27	78		
			2.0	30.2	23	<b>1</b>	11.7		
1950	5.6	13.Z	2.4	34.0	5.9	2.6			
1951	6.7	8.9	4.Z	110.8	6.0	3.8	¥.8		
1952	5.6	-32	3.9	122.9	4.5	- 3.2	1.3		
1953	3.6	_17	_26	119.3	3.0	-2.2	1		
1854	3.6	- : .	21	1151	11	_19	13		
IAEE		- 3.0		118.1		-::	17		
	2.7	8.9	2./	110-1		11	1.4		
1956		9.1	5.3	120.8	2.4	4.4	5.6		
1957	3.3	9.8	- 4.4	128.9	2.6	3.4	6.0		
1958	5.5	12.3	18.5	136.0	4.0	1.1	11.8		
1868	2.9	37	18	1487	19	12	32		
1000	<u></u>	3.1	1.9	160.6		13	20		
	4.1	2.0	.4	130.3	<i>с.</i>		<u> </u>		
1951	5.0	7.9	6.9	150.9	3.3	4.6	7.3		
1952	5.5	7.8	5.7	156.7	3.5	3.6	1.2		

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,		Nominal capital gains on farm asset values	Deal	Equity value of farm assets	Return as a percentage of equity value		
Year	Residual income to equity		Real capital gains		From residual income	From reat capital gains	Total
963	5.4	7.3	4.7	161.6	3.3	2.9	6.
964	4.4	9.0	7.2	166.5	2.7	4.3	7.
965	7.5	15.4	. 11.9	171.8	4.4	6.9	11.
966	8.5	13.5	7.3	184.3	4.6	4.0	8.
967	6.3	11.6	4.9	194.0	3.2	2.5	5.
68	6.1	13.0	3.8	203.0	3.0	1.9	4.
369	7.8	12.0	7	213.4	3.7	3	3.
970	1.1	10.7	5	222.3	3.5	- 2	3.
971	7.9	21.4	13.4	230.7	3.4	5.8	· 9
)72	12.9	37.5	27.7	249.1	5.2	111	16.
973	28.3	73.5	43.8	281.6	10.1	15.6	25.
974	19.5	27.1	-11.5	250.9	5.6	-3.3	2
975	18.0	64.9	38.1	366.6	4.9	10.4	15.
976	11.2	82.3	58.1	425.8	2.6	13.6	16.
977	10.0	64.5	29.9	494.2	2.0	6.0	8
978	17.5	121.4	65.8	544.0	3.2	12.1	15
979	22.1	114.4	22.7	654.6	3.4	3.5	6.
80	9.5	79.6	-6.0	757 1	1.3	_ 8	
981	13.6	- 9.2	- 70.6	820.1	1.7	-8.6	-6

Source: USDA.

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