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**THE GREAT DEPRESSION: CAN IT
HAPPEN AGAIN?**

HEARING
BEFORE THE
JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES
NINETY-SIXTH CONGRESS
FIRST SESSION

—————
OCTOBER 29, 1979
—————

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THE GREAT DEPRESSION: CAN IT HAPPEN AGAIN?

MONDAY, OCTOBER 29, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 2 p.m., in room 318, Russell Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen, McGovern, Sarbanes, Javits, Roth, and Jepsen; and Representatives Reuss, Hamilton, Brown, and Rousselot.

Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; William R. Buechner, professional staff member; Katie MacArthur, press assistant; Mark Borchelt, administrative assistant; Charles H. Bradford, minority counsel; and Carol A. Corcoran, Stephen J. Entin, and Mark R. Policinski, minority professional staff members.

OPENING STATEMENT OF SENATOR BENTSEN, CHAIRMAN

Senator BENTSEN. The hearing will come to order. The Joint Economic Committee this afternoon is holding a special hearing in observance of the 50th anniversary of the beginning of the Great Depression. The focus of today's hearing will be on the question—Can it happen again?

This hearing will give us an opportunity to dig into some of the things that happened at that time to make sure we don't make some of the same mistakes again.

The Great Depression was one of the most traumatic and unhappy experiences our country has ever gone through. Between 1929 and 1933, the real output of the United States fell by more than one-third. The unemployment rate rose from less than 4 percent to almost 25 percent, and millions of able American workers went through an entire decade without the hope of steady employment or a secure income. During those 4 years, more than 9,000 banks failed, and the stock market, according to the Dow Jones average, lost almost 90 percent of its value.

The Great Depression shattered the dreams of prosperity and economic security for millions of American families, forcing them into lives of poverty and desparation.

The beginning of the Depression is not an anniversary to celebrate. But it is a date that virtually demands that we look back for lessons that can help us understand the problems facing our economy today and look forward with recommendations for keeping the American economy growing, stable, and prosperous.

We never want to experience another disaster like that again.

Although I am going to leave it up to the witnesses to develop their ideas the way they want to, there is one concern of critical importance that I want to raise for consideration during this hearing.

If you look back at the statements and writings of economists and policymakers in 1929, you notice their confidence in their understanding of how the economy worked and what the Government should do. It was a firmly held tenet that the Government should not intervene and that panics and crashes should be allowed to run their natural course. The best thing the Government could do during a downturn would be to maintain its financial soundness by balancing the budget. As Treasury Secretary Andrew Mellon said, "Let the slump liquidate itself. Liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate."

Yet, every time the prevailing ideas were followed, the economic situation deteriorated. Taxes were raised, to balance the budget. Relief bills were vetoed. The Smoot-Hawley tariff was enacted. And the money supply was permitted to fall by one-third. The only result was that everything just got worse. By 1933, a prominent American lawyer, John W. Davis, told the Senate Finance Committee, "I have nothing to offer, either of fact or theory."

It was clear that the orthodox economic theories of the time were bankrupt. We were fortunate that President Roosevelt was willing to jettison old baggage and make active use of the Government to get the economy growing again. During the past 50 years, it has become widely accepted that the Federal Government has a responsibility to use monetary and fiscal policy to keep our economy from ever experiencing a depression like we saw during the 1930's.

And as we know, it has been successful in preventing another depression.

But our economy is faced with new problems that pose a challenge to economic theory as serious as the challenge posed in 1929. In our determination to bolster consumer demand and Government spending, we have ignored the problems building on the supply side of the economy. We have discouraged investment, we have reduced our spending for research and development. And we are now paying the price, with extraordinary inflation, declining productivity, and falling living standards.

One of the worst things that can happen to the discipline of economics is for the accepted ideas to fall out of step with the needs of the economy.

If that happens, we may end up back where we were in 1929—where our understanding of the economy is no longer adequate and where the policy actions we take based on current economic theory only makes matters worse.

Although the problems facing our economy today differ from the problems of 1929, they are potentially just as serious—high inflation, high unemployment, high interest rates, a debt-laden economy, low investment, low productivity, and a declining value of the dollar on world markets. We just don't want to let these problems lead to another disaster like the one that struck us in 1929.

We have as our witnesses this afternoon three eminent economists who are uniquely qualified to shed some light on the question: Can it happen again?

Prof. John Kenneth Galbraith, of Harvard University, who is the author of the definitive work on the great crash of 1929. Alan Greenspan, president of Townsend-Greenspan & Co., who served as Presi-

dent Ford's Chairman of the Council of Economic Advisers. And Prof. Walter Heller, of the University of Minnesota, who served as Chairman of the Council of Economic Advisers under Presidents Kennedy and Johnson.

Are there members of the committee who have statements to make? Senator Roth.

OPENING STATEMENT OF SENATOR ROTH

Senator ROTH. Mr. Chairman, first I would like to congratulate you for holding these most important hearings. I find that there is a public malaise in this country. This is the 50th anniversary of the Great Depression. The question we want answered is not "are we going to avoid another depression," but "what are we going to do to get this country moving again?"

Now, there are a lot of similarities, as you have already pointed out, Mr. Chairman, between today and 50 years ago. We have probably the highest taxes in history. Unemployment is increasing substantially. And there are those who argue that the way out of this problem of today's stagflation is longer unemployment lines. Interest rates are as high as we have ever suffered. Inflation is double-digit. And as I said, the American people see themselves faced with downward mobility.

I think we are at an economic crossroads. Some people are saying that our economic policies are bankrupt. They see nothing virtuous in long lines of unemployment and inflation. And I agree. I agree with that, and I agree with our chairman when I say that I think the real question, as the Joint Economic Committee pointed out some time ago, is, "How do we produce our way out of stagflation?"

And one of the questions I will be interested in hearing from each of you gentlemen on is not only the negative side, because I think there has been too much negative talk in Washington, but the positive side of how we adopt policies that will permit us to produce ourselves out of this stagflation.

Mr. Chairman, I, like you, am appreciative of the fact that we have these distinguished guests here today. I feel very strongly that we have got to offer a message of hope to the American people. If we only say that we are going to do with less, then we are going to end up fighting, each of us, for our piece of the action. Instead, I think, we have to rekindle hope and optimism by policies that will permit growth without inflation.

Thank you, Mr. Chairman.

Senator BENTSEN. Thank you. Is there another member who cares to comment?

Senator JEPSEN. Mr. Chairman.

Senator BENTSEN. Senator Jepsen.

OPENING STATEMENT OF SENATOR JEPSEN

Senator JEPSEN. Senator, I, too, would echo the sentiments of Senator Roth in setting this very important hearing and putting it into being. Since we are reflecting on the 50th anniversary of the stock market crash, it is interesting to note that in real terms, adjusted for inflation, the market today is lower than it was in 1930. Along these same lines, I want to say with some alarm that farm prices, again adjusted for inflation, are lower than they were in 1930.

This committee, in March, for the first time in some 20 years, unanimously signed a report which urged increased productivity, encouraging the realization of the American dream by way of incentives. I would just like to say that I am looking forward to this meeting today and hearing from these three experts. And to steal a line from St. Francis of Assisi, who, I think, could represent a lot of people in the economic world today when he said that there is despair where we want to give hope, and darkness where we want to give light. And we certainly need that in our economic world today. I am looking forward to hearing from you. Thank you.

Senator BENTSEN. Congressman Brown.

OPENING STATEMENT OF REPRESENTATIVE BROWN

Representative Brown. Mr. Chairman, I think it is salutary that you are having these hearings on the 50th anniversary of the stock market crash and the start of the Great Depression. I guess this hearing has been called to ask the question: Can it happen again? And I think the answer is obvious: Yes. Not only can it happen again, to some extent it is happening right now.

Today we are ruining the economy just as effectively with taxation regulation, and inflation, as we did in 1929 with deflation and high tariffs. We are now going through a slow-motion savings, investment, and dollar collapse due to printing-press money, inflation, and a non-indexed tax code, all topped off by overspending and overregulation of the private sector by the Federal Government.

There will be no sudden crash. This time around, we are going out not with a bang, but with a whimper.

Unless we act rationally now, another decade of stagflation will bring rising unemployment, reduced living standards, the bankruptcy of social security, and the inability to provide for a rising number of elderly citizens and new entrants to the job market. It will lead to social upheaval here at home. Abroad, the Russians will continue to grow stronger at our expense. As we stagnate, there will be no way to keep up with Russian defense spending.

We are doing this to ourselves. It now costs the economy over \$100 billion a year to comply with Federal regulations. Taxes are too high and are getting higher. According to the Joint Committee on Taxation, the "bracket creep" from inflation, the social security tax increases, and windfall profits taxes are expected to raise the total tax burden by over \$1 trillion in the next decade.

And how are Americans today avoiding those taxes and maximizing their income potential? By investing in tax shelters for example, real estate, gold, oriental rugs, Chinese vases, a whole list of unproductive assets which increase in value with inflation and the desire to avoid taxes on earned income or productive investments. This is where the speculation of the 1929 stock market is centered today, and we may see the same dramatic and precipitate slide in such shelters as a result of the Fed's effort to get inflation under control by higher interest rates and should we ever get our tax system into a more rational posture.

If we are serious about having an economy left by 1990, these taxes and regulations must be stopped. These are the worries behind the tax revolt, and behind the new supply side economics which the Joint Economic Committee has been emphasizing.

The specific policy blunders that brought on the first Great Depression are not likely to recur. The recession of 1929 was turned into

the Depression by the collapse of the monetary system and the international trade sector. This will not happen now.

Fifty years ago, the Federal Reserve blundered into the worst credit crunch in history. Thousands of banks failed. The money supply fell by 33 percent in 3 years, leading to massive deflation. Tens of thousands of businesses either lost their funds or saw their money tied up in failed banks through years of lawsuits. It is inconceivable that today's Fed would allow any such drop in credit or permit a bank to fail without arranging a merger or takeover by another bank. Furthermore, the insurance of deposits makes it next to impossible for a panic to start a run on banks.

Fifty years ago, the outrageous Hawley-Smoot tariff caused a violent trade war. World trade collapsed under the sharply increased trade barriers. Resources lay idle, and productivity and output dropped as each nation tried to replace imports with less efficient domestic production. We have learned from this experience, as the overwhelming vote in favor of ratification of the Tokyo round of tariff and trade barrier reductions has proven.

But one factor in the onset of the Great Depression is recurring. That is the stock market crash. There are those who say the stock market was a cause of the Depression. They would rather blame speculators and an irrational private sector for the crash rather than place the blame where it belongs: On Government. In fact, the stock market in 1929 was accurately forecasting the terrible effects of the credit crunch and the impending trade war. One thousand economists wrote the President to ask him not to sign that tariff bill. And Prof. Milton Friedman and Anna Schwartz have clearly documented the effects of that credit crunch. It was public policy that caused the Depression, not the public.

Today, it is Government that is causing a slow-motion replay of the great crash. The crash has been so slow that most people are unaware of it. But the figures are plain. Since its peak in 1966, the stock market has fallen by more than two-thirds of the drop that it took in the Great Depression.

Adjusted for inflation, the Dow Jones Industrial Average lost 87 percent of its real value between 1929 and 1932. But today's stock market has lost 63 percent of its real value since 1966, as measured by the Dow Jones. Since hitting 1,000 in 1966, the Dow Jones has fallen to 810, a drop of 19 percent. But prices have more than doubled since 1966, up 123 percent. To have stayed the same in real terms, the Dow Jones should now be at 2,230, just to be where it was 13 years ago.

This proves the point that increased taxation, regulation, and inflation have produced a long, slow, torturous collapse of the potential of the economy. This is what the market measures. It is forecasting a much bleaker future today than it did 13 years ago.

The Keynesian economics which has led us to this current state of affairs is also a child of the Depression. This intellectual justification for inflating spending and demand has us locked in its grip, and threatens to return us to the economic misery it was invented to cure. It is imperative that we understand what the stock market, the tax revolt, and those who complain of overregulation are trying to tell us. It is time to switch to the economics of supply, of incentives, and of hope for the future.

That is what the Joint Economic Committee's report in March was all about, and that's what the midyear told us again. It is time to put the economics of the Depression behind us. Thank you.

Senator BENTSEN. I would say that you gentlemen have heard a capsule of views here, but knowing the strength and character of our three witnesses, I am sure you weren't intimidated a bit.

Mr. Galbraith, if you would present your statement, please.

STATEMENT OF JOHN KENNETH GALBRAITH, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY, CAMBRIDGE, MASS.

Mr. GALBRAITH. Thank you.

In keeping with your request, Mr. Chairman, I will allow myself a few words of history. It was 50 years ago last Wednesday, October 24, 1929, that things began to come apart. The market dropped sharply that day through the morning hours under a huge wave of selling orders. Thousands, especially smaller investors, heard well after the fact that they had been ruined or sold out. They heard it later for the ticker was some hours behind the market.

However, at noon that day the worst was over. The leading bankers met at Morgan's next door to the exchange—Charles E. Mitchell of the National City Bank, as it then was; Albert H. Wiggin, head of the Chase; Thomas A. Lamont, senior partner of Morgan's; one or two others—and announced that they had formed a pool to stop the damage. Richard Whitney, the vice president of the New York Stock Exchange and a Morgan broker, then went on to the floor to buy stocks and the market turned around. The prestige of the great New York bankers was already very high; in the immediately ensuing days it was even higher. An advertisement in the New York papers acclaimed the fact; it said, "Steady, Heed the Words of America's Greatest Bankers." They had saved the day.

Then on the following Monday, things took a turn for the worse, and on Tuesday, 50 years ago today, the bottom, quite literally in this case, dropped out of the market. The trading was at an alltime high, the decline in values was precipitate. Sometimes for some stocks there were no buyers at all. The rumor swept the exchange that the big banks were not supporting the market but selling what they had bought on the earlier day. The bankers met on October 29, but announced only that they would maintain an orderly market; they would see, in effect, that people met their ruin in a seemly way. It would not be their purpose to support the market.

There can now be little doubt that the crash produced a major shock effect—a trauma. In the immediately ensuing weeks, the effect on consumer expenditure, business investment, oversea lending, farm commodity prices was strongly evident. All were sharply reduced; there would now be agreement that the market crash contributed in a substantial way to the Depression that followed.

Senator BENTSEN. Professor Galbraith, I just have to interrupt. The backup that you're talking about on banks, that was the headline for the October 30, 1929, New York Daily News: "Banks Check Wall Street Crash."

Mr. GALBRAITH. Thank you, Mr. Chairman. This is proof of the old theory that a picture may be worth a thousand words—or vice versa.

The kind of market collapse that occurred in 1929 is not, I would judge, a present threat. No one these days needs to be warned or should need to be warned against economic predictions. They are known to be what the economist in question wants to believe or what the public official—Treasury Secretary, Presidential adviser, Federal

Reserve Chairman—needs to have happen. But the great crash was the counterpart of the insane speculation in common stocks in 1927, 1928, and especially in the summer of 1929 that preceded it.

The sequence was in the classic manner of the pure speculative episode. Prices first went up because of good earnings. Then they took leave of reality. The market was taken over by people for whom the only important fact was that prices were going up. Their buying then put up the prices but with the certainty that when the supply of such speculators—and gulls—ran out, as eventually it would, the upward movement would come to an end and prices would collapse in the rush to realize and get out.

This, to repeat, is the classic speculative sequence. Something of this sort could now happen, though with smaller effect, in the gold and precious metals markets and, say, in Florida real estate. There has been no similar antecedent speculation in Wall Street.

There are, however, other lessons from that time. One is that personal association with large sums of money, while it does produce good manners and good tailoring and a manifest certainty of manner and statement, does not necessarily induce great wisdom. After the 1929 debacle this was very evident. The men who before the crash inspired such vast confidence did not have an altogether reassuring history. Charles Mitchell of the National City Bank was himself heavily in the market. In March 1933, he was arrested by Thomas E. Dewey, and, though eventually acquitted, he spent most of that decade explaining to the Bureau of Internal Revenue, as it then was, how he had happened to sell his depreciated securities to his unsuspecting wife to establish a large—and, as he hoped, deductible—capital loss.

Albert Wiggin of the Chase had similarly to explain why he was heavily involved in the stock of his own bank. He said it enhanced his interest in its success. Unfortunately for that explanation, he was heavily short. [Laughter.]

Thomas Lamont had to explain why he and George Whitney, another Morgan partner, did not tell the police when they learned that Richard Whitney, vice president of the exchange, had filched some millions of dollars from his customers and the exchange benevolent fund. Richard Whitney himself went to Sing Sing, where, however, he distinguished himself as first baseman on the baseball team. [Laughter.]

I do not, of course, suggest that the present generation of great banking figures has the same manipulative or larcenist tendencies as their predecessors. I think they are honorable men. I do strongly urge that we be as cautious as ever in reposing too great confidence in men of great financial position. Prior to 1929 it was widely supposed that some special talent for preventing crises and depression lay with the bankers and the Federal Reserve System, then a magical thing only 15 years old. We are now hearing from the banks and the Federal Reserve that financial genius, manifested through monetary policy, will be our salvation. High interest rates, tight money, and the resulting recession will end inflation. We need to be as skeptical now as people learned they should have been then.

The present danger comes not from speculation but from inflation and from our dangerously high consumption and imports of oil. As an inflationary remedy we are relying excessively on monetary policy combined with predictions by administration policymakers that things will get better—predictions, to repeat, that depend for their substance only on what those taking the action wish or need to have happen.

Our reliance on monetary policy for controlling inflation selects for major use the instrument of policy that, of all available policy instruments, has the most uncertain relationship between action and result. That is why all who predicted a recession as the consequence of the last tightening a year ago turned out to be wrong.

Monetary policy, when used in excess, is also highly discriminatory. It works, when it works, by curbing the borrowing of the smaller businessman who depends on borrowed money. It can be brutal as regards the housing industry and construction and against agriculture. It does not hurt General Motors and Exxon, which are adequately supplied with capital from their own earnings, are first in line at the prime rate at the banks and can, in any case, pass on their higher interest costs to their customers.

I might pause here to say that I think it might hurt Chrysler. [Laughter.]

Monetary policy also has its major direct effect on investment, not consumption, and thus on improvement in capital plant and productivity.

Most important, monetary policy is only successful as it causes unemployment, idle capacity, excess inventories, and recession. That is what arrests the upward movement in wages and prices and nothing else. When the Secretary of the Treasury promises to prevent inflation without causing a recession, he is talking in contradictions—or maybe through his hat. To pursue the present policy may not be to risk another 1929. It does risk different and quite innovative forms of unpleasantness.

The only safe and proper action against inflation is a broad spectrum policy that makes firm use of all the accepted instruments against inflation and which does not rely excessively on any one. There needs to be a moderate hold on bank lending. Given the low rate of saving, we quite possibly should now have a Federal budget surplus. This we cannot achieve in any useful measure by cutting back on social expenditures for the less fortunate of our people. There is nothing whatever to be said for the present revolt of the rich against the poor, however it is disguised by talk of needed incentives. We should recognize what we all know; namely, that there is a strong economic lobby on behalf of certain types of defense expenditures. Also other public works and investment. There should be saving here. And we should, as necessary, extend or step up taxation on luxury expenditures. Better and more equitable by far to cut back a bit on big automobiles, luxury clothing, big houses, than on the housing, health care, welfare expenditures of the average person or the poor.

We must also now take tight control of the wage-price spiral. The need for this is clear. The hope that such control can be achieved by the present enforced voluntarism, another contradiction in terms, can no longer be sustained.

Finally, we must take hold of our oil consumption. At present levels, this is a source of major instability both at home and abroad. I have attached a note at the end of my prepared statement on how I judge that this might be done.

Needless to say, there can now be no talk of tax reduction. Whatever novelties there are in economics, we cannot reduce taxes, add to spending and market demand, thus adding to inflationary pressures when inflation is at record peacetime levels. Some things are beyond rational contemplation whatever the possible applause. And we must beware also of those who, not wanting to talk about the unpleasant remedies

for inflation, tell us that the real problem is the next recession and who then prescribe pleasant action for that. That, as a form of escapism, improves only slightly on the WIN button.

I hope that no one will think me unkind to those who believe that monetary witchcraft will protect us from painful economic consequences. One seeks, indeed, to save these very good men from the possibly drastic consequences of their own illusions. Thank you.

[The prepared statement of Mr. Galbraith, together with the "Note on Gasoline Rationing," follows:]

PREPARED STATEMENT OF JOHN KENNETH GALBRAITH

THE GREAT WALL STREET CRASH

Senator Couzens: Did Goldman, Sachs & Co. organize the Goldman Sachs Trading Corporation?

Mr. Sachs: Yes, sir.

Senator Couzens: And it sold its stock to the public?

Mr. Sachs: A portion of it. The firm invested originally in 10 percent of the . . . issue.

Senator Couzens: And the other 90 percent was sold to the public?

Mr. Sachs: Yes, sir.

Senator Couzens: At what price?

Mr. Sachs: At 104 . . . the stock was [later] split two for one.

Senator Couzens: And what is the price of the stock now?

Mr. Sachs: Approximately $1\frac{3}{4}$.

Hearings before the United States Senate Committee on Banking and Currency on Stock Exchange Practices, May 21, 1932.

The climactic stock-market crash which launched the Great Depression occurred fifty years ago this month, but it has already receded far into the mists of memory. One measure of this is the widespread assumption that there was one day in October 1929 when the great crash occurred. Another is the total absence of agreement as to what day it was. Thus Thursday, October 24, the first day on which panic seized the market, has regularly been cited as the Black Thursday of the crash. But the professionals have always leaned to the following Monday or Tuesday, when the losses were far greater and when the volume of trading reached its all-time high. Others have picked still other days.

In a book explaining the debacle, Professor Irving Fisher of Yale—Professor Fisher, as the acknowledged prophet of the boom, was left with much explaining to do—singled out October 21 as the day of catastrophe. (On that day trading was very heavy but the declines relatively modest.) In 1935, the authorized biographers of Herbert Hoover picked October 23 and October 26 along with the twenty-ninth. The Twenty-third was the day preceding Black Thursday; the twenty-sixth was a Saturday when things were tolerably quiet. As the fiftieth anniversary has approached, there has continued to be similar uncertainty as to the great day. Not perhaps since the siege of Troy has the chronology of a great event been so uncertain.

As a matter of fact, economic history, even at its most violent, has a much less exciting tempo than military or even political history. Days are rarely important. All of the autumn of 1929 was a terrible time, and all of that year was one of climax. With the invaluable aid of hindsight it is possible to see that for many previous months the stage was being set for the final disaster.

On the first of January 1929, the Coolidge Bull Market was at least four years old. The *New York Times* average of the prices of twenty-five representative industrial stocks—then a standard reference—which has stood at 110 at the beginning of 1924, had eased up to 135 at the beginning of 1925. At the close of trading on January 2, 1929, it was at 338.35. Apart from mild setbacks, notably in early 1926 and early 1928, this climb had been almost uninterrupted. There were very few months when the average did not show an improvement on the month preceding. There had been, in short, a speculative upsurge of unparalleled magnitude and duration.

There were some reasons for thinking that 1929 might be different. For one thing, Mr. Hoover would replace President Coolidge in the White House in March and in the narrow political spectrum of the day, that meant a modest shift to the left. Mr. Coolidge, as Mr. Hoover himself was to say, knew nothing and

cared less about the speculative orgy in which the country was indulging itself. (A few days before leaving office he assured the country that things were "absolutely sound" and that stocks were a good buy at current prices.) Moreover, the instrument through which Mr. Coolidge would have had to act was the Federal Reserve Board, and in his time the possibility of this body's initiating any drastic measures was remarkably slight.

Its authority, constitutional and moral, was shared with the powerful Federal Reserve Bank of New York. The Chairman of the Board, one Daniel R. Crissinger, was a small-town boy from Ohio who had been appointed in the belief that any amiable citizen could be a central banker. His colleagues, with one exception, were later described accurately by Mr. Hoover as mediocrities.

In his memoirs, Mr. Hoover suggests that, by the beginning of 1929, the halting of the stock-market boom had become practically an obsession with him. This was a fairly well-kept secret, for the market hailed his election in November with the wildest advance to date, and a day or two before he took office in March there was a fine upsurge which was dubbed the "inaugural market." However, Mr. Hoover did know what was going on, and late in 1927 Crissinger had been replaced by Roy A. Young, a more substantial figure. There was now at least a chance that an effort might be made to restrain the speculation.

There remained, however, the problem of what could be done—and at what cost. Stocks, overwhelmingly, were being bought on margin. That meant that someone had to put up as a loan the part of the price which the purchaser wasn't paying. The task of the Federal Reserve was to get control of the funds that were being thus used to finance the speculative purchase of securities. But the rates on these brokers' loans were high for the times—through January 1929, for example, they averaged a shade under 7 per cent. Seven percent with near-perfect safety and your money available on demand was then a magnificent return. Individuals and especially corporations were finding the market an increasingly attractive outlet for surplus cash, and the Federal Reserve had no obvious way of checking this source of money for the market.

However, in many respects this was a detail. There was the much more inconvenient question of whether any control could be exercised which, if effective, wouldn't bring an awful smash. It is easy enough to burst a bubble. To incise it with a needle so that it subsides gradually is an operation of undoubted delicacy. Collapse and an ensuing depression would be unpleasant for, among others, those who were blamed for bringing them about. This was sensed if not seen.

Yet there was the danger that if the bull market were allowed to go roaring along, there would eventually be an even more violent crackup. So early in 1929, the monetary authorities began debating the relative merits of sudden death or a more horrible demise a little later on. Secretary of the Treasury Mellon was passionately for inaction; Governor Young and a part of his Federal Reserve Board were for action, although there was dispute on the particular controls to be invoked.

The issue was never decided, but the knowledge that the debate was going on began to be a source of uneasiness in Wall Street.

Meanwhile there were more serious sources of uneasiness from within the market itself. In a market like that of 1929, there are three possible reasons why people buy stocks. One is for the old-fashioned purpose of sharing in the current income of an enterprise. Some eccentrics were undoubtedly so motivated in those days, although in the case of such a speculative favorite as RCA, which, adjusted for split-ups, reached 505 on September 3, 1929, up from 94½ in the preceding eighteen months, the desire for immediate income must have been fairly slight. The stock had never paid a dividend. Elsewhere the showing was better. A hundred dollars' worth of shares which provided an average return of \$5.90 in 1921 paid \$3.50 in 1929. Yields did not keep pace with market values, but neither, as some have suggested, did they vanish.

A second and far larger group of people were buying stocks because they had heard that the stock market was a place where people could get rich, and they were righteously persuaded that their right to be rich was as good as the next person. These were the innocent, although it was also their misfortune to believe—perhaps with some assistance from the customer's man of a broker—that they were really very wise. These buyers talked of the prospects for Steel, GM, United Corporation and Blue Ridge with the familiarity of a friend and the unique certainty not of one who knows but of one who doesn't know that he doesn't know.

Finally, stocks were being bought by those who knew that a boom was on but who intended to get out—or even, at a high level of professionalism, to go short—before the crash came. As 1929 wore along, it was this group that became increasingly nervous. The market was making phenomenal advances; one couldn't get out while there were still such gains to be made. But whenever there was upsetting news, the market dropped sharply on large volume. Some were getting out.

Thus, in February, when the Federal Reserve Board finally decided to issue a warning in careful financial prose—"a member bank is not within its reasonable claims for rediscount facilities at the Federal Reserve Bank when it borrows for the purpose of making speculative loans"—prices broke sharply. There was a prompt recovery, but in the following month it became known that the Federal Reserve Board was meeting daily on its problem of immediate suicide versus eventual disaster. The market broke again, and on March 26, 8,239,000 shares changed hands on the New York Stock Exchange. (Once in the early days of the bull market it had been said that men might live to see a five-million-share day). Prices fell precipitately, and call money rates that day went to 20 percent, which meant that anyone who bought General Electric on margin paid at the then phenomenal rate of 20 percent per annum for that day to carry a security which was yielding around 1.25 percent.

There is a chance—no one will ever know—that the bubble might have been pricked then and there, but, in an act of historic arrogance, Charles E. Mitchell, Chairman of the Board of the National City and himself a speculator, put his bank behind the boom. "We feel that we have an obligation which is paramount to any Federal Reserve warning, or anything else, to avert . . . any dangerous crisis in the money market." The National City let it be known that it was loaning freely in the call market and had more to come if rates got unduly high, that is, much above 15 percent. The market steadied, and by the end of March 26 most of that day's losses had been recovered.

There were further breaks and more nervousness during the next two months. However, the Federal Reserve remained quiet and presumably undecided. So there was a brief recovery of confidence, and prices started on their last great zoom. There was no summer lull in Wall Street that year. Each day the market went on to new highs. Not everyone was playing it as the later legend held—the great majority of Americans were then as innocent of knowledge of how to buy a stock as they are today. But subsequent estimates of no great reliability have suggested that as many as a million people were involved in the speculation. During that summer practically all of them made money. Never before or since have so many people so suddenly got so wonderfully rich.

On the first of June the *Times* industrial average—industrial stocks were the locus of the heavy speculation—stood at 342; by the first of July it was 394; on the first of August it was 418; when the market reopened on September 3 after the Labor Day holiday, it reached 452. This was a gain of 110 points—25 per cent—in ninety days. The *New York Times* financial section on September 3 ran to fifteen full pages. Later in the week it was announced that brokers' loans had reached the remarkable total of \$6,354,000,000. (In the preceding three months they had been increasing at a rate in excess of \$400,000,000 a month). However, the end was near, although never so far from being in sight.

On September 5, there was a break, and the industrial average fell about ten points. The nervousness of those who wanted both to stay to the last and get out in time was admirably indicated by the cause of this setback. It followed a statement by one Roger Babson on September 4 that "Sooner or later a crash is coming and it may be terrific." Mr. Babson was a professional forecaster; the drop was promptly labeled the Babson Break. All honor must go to Babson for his historic omniscience, although it deserves it be added that he had been making similar predictions at frequent intervals for some four years.

The market was ragged the rest of September and into October. There were days of strength, but there were also days of weakness, and, generally speaking, the direction was down. No one wished to believe that the market boom was over. In the arresting terminology of the time—as used in this instance by the *Wall Street Journal*—"Price movements in the main body of stocks continued to display the characteristics of a major advance temporarily halted for technical readjustments." On October 8, from Germany, Charles E. Mitchell announced that "Nothing can arrest the upward movement in the United States," and a week later, on taking the boat for home, he helpfully added that the market was now "in a healthy condition" and that "values have a sound basis in the general prosperity of our country." During the same week, Irving Fisher announced that stocks had reached a "new high plateau," and *Time Magazine* began its issue of October 28 with a cover story on Ivar Kreuger, the Swedish match king and swindler. The following week it featured Samuel Insull, whose midwestern utility empire would later fall with a resounding crash.

On Saturday, October 19, the papers told of a very weak market the day before—there were heavy declines on late trading, and the *Times* industrial average had dropped about seven points. Meanwhile that day's market was also behaving very badly. In the second heaviest Saturday's trading in history, 3,488,100 shares were changing hands. At the close the *Times* industrial index was down twelve points.

On Sunday the break was front-page news—the *Times* headline read, "Stocks driven down as wave of selling engulfs market." The *Times* financial editor, who, to his credit, and along with the editor of the *Commercial and Financial Chronicle*, had never wavered in his conviction that the market had gone insane, suggested that, for the moment at least, "Wall Street seemed to see the reality of things." The news stories featured two other observations which were to become wonderfully familiar in the next fortnight. It was said that at the end of Saturday's trading, an exceptionally large number of margin calls went out. And it was predicted that come the following week, "organized support" could definitely be expected for the market.

Monday, October 21, was another poor day. Sales totaled 6,091,870, the third greatest volume in history, and hundreds of thousands who were watching the market throughout the country made a disturbing discovery. There was no way of telling what was happening. Previously on big days of the bull market the ticker had often fallen behind, and one didn't discover until well after the market closed how much richer one had become. But with a falling market things were very different. Now one might be ruined, totally and forever, and not know it. And even if one were not ruined, there was a strong tendency to imagine it.

From the opening on the twenty-first the ticker lagged, and by noon it was an hour late. Not until an hour and forty minutes after the close of the market did it record the last transaction. Every ten minutes prices of selected stocks were printed on the bond ticker, but the wide divergence between these and the prices on the tape only added to the uneasiness—and to the growing conviction that it might be best to sell.

This conviction notwithstanding, the market closed well above its low for the day—the net loss on the *Times* industrial average was only about six points—and on Tuesday there was a further though rather shaky gain. Possibly some credit for this improvement should go to Wall Street's two cheeriest seers. On Monday in New York Professor Fisher, still the greatest economic voice on such matters, said that the declines had represented only a "shaking out of the lunatic fringe." He went on to explain why he felt that the prices of stocks during the boom had not caught up with their real value. Among other things, the market had not yet reflected the beneficent effects of Prohibition, which had made the American worker "more productive and dependable."

On Tuesday, Charles E. Mitchell, the most authoritative banking voice, dropped anchor with the observation that "the decline had gone too far." (Time and sundry congressional and court proceedings were to show that Mr. Mitchell had strong personal reasons for feeling that way.) He added that conditions were "fundamentally sound," that too much attention had been paid to the large volume of brokers' loans and that the "situation is one which will correct itself if left alone." There was, however, another jarring suggestion from Roger Babson. He recommended selling stocks and buying gold.

By Wednesday, October 23, the effect of this cheer had been dissipated. Instead of further gains there were heavy losses. The opening was quiet enough, but toward midmorning motor accessory stocks were sold heavily, and volume began to increase throughout the list. The last hour was quite phenomenal—2,600,000 shares changed hands at rapidly declining prices. The *Times* industrial average for the day dropped from 415 to 384, giving up all of its gains since the end of the previous June. Again the ticker was far behind, and to add to the uncertainty an ice storm in the Middle West caused widespread disruption of communications. That afternoon and evening thousands of speculators decided to get out while—as they mistakenly supposed—the getting was good. Other thousands were told they would have no choice but to get out unless they posted more collateral, for, as the day's business came to an end, an unprecedented volume of margin calls went out.

Speaking in Washington, even Professor Fisher was fractionally less optimistic. He told a meeting of bankers that "security values in most instances were not inflated." However, he did not weaken on the unrealized efficiencies of Prohibition. There was one bit of cheer. It was everywhere predicted that, on the morrow, the market would begin to receive "organized support."

Thursday, October 24, is the first of the days which history identifies with the panic of 1929. Measured by disorder, fright and confusion, it deserves to be so regarded. 12,894,650 shares changed hands that day, most of them at prices which shattered the dreams and the hopes of those who had owned them. Of all the mysteries of the stock exchange there is none so impenetrable as why there should be a buyer for everyone who seeks to sell. October 24, 1929 showed that what is mysterious is not inevitable. Often there were no buyers, and only wide vertical declines could anyone be induced to bid.

The morning was the terrible time. The opening was unspectacular, and for a little while prices were firm. Volume, however, was large, and soon prices began to sag. Once again the ticker dropped behind the market. Prices fell farther and

faster, and the ticker lagged more and more. By eleven o'clock what had been a market was only a wild scramble to sell. In the crowded board rooms of the brokerage houses across the country the ticker told of a frightful collapse. But the selected quotations coming in over the bond ticker also showed that current values were far below the ancient history of the tape. The uncertainty led more and more people to try to sell. Others, no longer able to respond to margin calls, were sold. By 11:30, panic, pure and unqualified, was in control.

Outside the Exchange on Broad Street a weird roar could be heard. A crowd gathered, and the New York police commissioner dispatched a special police detail to Wall Street to ensure the peace. A workman appeared to accomplish some routine repairs atop one of the high buildings. The multitude, assuming he was a would-be suicide, waited impatiently for him to jump. At 12:30 the visitors' gallery of the Exchange was closed on the wild scenes below. One of the visitors who had just departed was displaying his customary genius for being on hand for history. He was the former British Chancellor of the Exchequer, Mr. Winston Churchill. It was he in 1925 who returned Britain to a gold standard that substantially overvalued the pound. To help relieve the subsequent strain, the Federal Reserve eased money rates, and, in the conventional though far from reliable way, it thereby launched the bull market. However, there is no record that anyone that day reproached Winston for the trouble he was causing. It is most unlikely that he reproached himself.

At noon, however, things took a turn for the better. At last came the long-awaited organized support. The heads of the big New York banks—National City, Chase, Guaranty Trust and Bankers Trust—met with Thomas W. Lamont, the senior partner of the great house of J. P. Morgan at 23 Wall Street. All quickly agreed to come to the support of the market and to pool substantial resources for this purpose. Lamont then met with reporters and, in what was later described as one of the most remarkable understatements of all time, said: "There has been a little distress selling on the Stock Exchange." He added that this passing inconvenience was "due to a technical situation rather than any fundamental cause," and he told the newsmen the situation was "susceptible to betterment."

Meanwhile word had reached the Exchange floor that the bankers were meeting and succor was on the way. These were the nation's most potent financiers; they had not yet been pilloried and maligned by the New Dealers. Prices promptly firmed and rose. Then at 1:30 Richard Whitney, the vice-president of the Exchange and widely known as a floor broker for Morgan's, walked jauntily to the post where Steel was traded and left with the specialist an order for 10,000 shares at several points above the current bids. He continued the rounds with this largesse. Confidence was wonderfully revived, and the market actually boomed upward. In the last hour the selling orders which were still flooding in turned it soft again, but the net loss for the day—about twelve points on the *Times* industrial average—was far less than the day before. Some issues, Steel among them, were actually higher on the day's trading.

However, this recovery was of distant interest to the tens of thousands who had sold or been sold out during the decline and whose dreams of opulence had gone glimmering along with most of their merchantable possessions. It was eight and a half minutes past seven that night before the ticker finished recording the day's misfortunes. In the board rooms speculators who had been sold out since early morning sat silently watching the tape. The habit of months or years, however idle it had now become, could not be broken at once. Then, as the final trades were registered, they made their way out into the gathering night.

In Wall Street itself lights blazed from every office as clerks struggled to come abreast of the day's business. Messengers and board-room boys, caught up in the excitement and untroubled by losses, went skylarking through the streets until the police arrived to quell them. Representatives of thirty-five of the largest wire houses assembled at the offices of the brokerage house of Hornblower and Weeks and told the press on departing that the market was "fundamentally sound" and "technically in better condition than it has been in months." The host firm dispatched a market letter which stated that "Commencing with today's trading the market should start laying the foundation for the constructive advance which we believe will characterize 1930." Charles E. Mitchell announced that the trouble was "purely technical" and that "fundamentals remained unimpaired." Senator Carter Glass said the trouble was due to Charles E. Mitchell. Senator Wilson of Indiana attributed the crash to Democratic resistance to a higher tariff.

On Friday and Saturday trading continued heavy—just under six million on Friday and over two million at the short session on Saturday. Prices, on the whole, were steady—the average was a trifle up on Friday but slid off on Saturday. It was thought that the bankers were able to dispose of most of the securities they had acquired while shoring up the market. Not only were things better, but everyone was clear that it was the banking leaders who had made them so. They had

shown both their courage and their power, and the people applauded warmly and generously. Commenting on Friday's market, the *Times* said: "Secure in the knowledge that the most powerful banks in the country stood ready to prevent a recurrence [of panic] the financial community relaxed its anxiety yesterday."

From other sources came statements of reassurance and even self-congratulation. Colonel Leonard Ayres of Cleveland, another prophet of the period, thought no other country could have survived such a crash so well. Eugene M. Stevens, the president of the Continental Illinois Bank, said, "There is nothing in the business situation to justify any nervousness;" Walter Teagle, the telephone magnate, said there had been no "fundamental change" in the oil business to justify concern; Charles M. Schwab, the steel magnate, said that the steel business had been making "fundamental progress" toward stability and added that this "fundamentally sound condition" was responsible for the prosperity of the industry; Samuel Vauclain, chairman of the Baldwin Locomotive Works, declared that "fundamentals are sound;" President Hoover said that "The fundamental business of the country, that is production and distribution of commodities, is on a sound and prosperous basis." H. C. Hopson, the head of Associated Gas & Electric, a great utility combine, omitted the standard reference to fundamentals and said it was "undoubtedly beneficial to the business interests of the country to have the gambling type of speculator eliminated." Mr. Hopson, himself a speculator, was eliminated in due course. A Boston investment trust took space in the *Wall Street Journal* to say, "S-T-E-A-D-Y Everybody! Calm thinking is in order. Heed the words of America's greatest bankers." A single dissonant note, though great in portent, went completely unnoticed. Speaking in Poughkeepsie, New York, Governor Franklin D. Roosevelt criticized the "fever of speculation."

On Sunday there were sermons in the New York churches suggesting that a certain measure of divine retribution had been visited on the Republic and that it had not been entirely unmerited. It was evident, however, that almost everyone believed that this heavenly knuckle-rapping was over and that speculation could now be resumed in earnest. The papers were full of the prospects for next week's market. Stocks, it was agreed, were again cheap, and accordingly there would be a heavy rush to buy. Numerous stories from the brokerage houses, some of them possibly inspired, told of a fabulous volume of buying orders which was piling up in anticipation of the opening of the market. In a concerted advertising campaign in Monday's papers, stock-market firms urged the wisdom of buying stocks promptly. On Monday the real disaster began.

Trading on Monday, though in great volume, was smaller than on the previous Thursday—9,212,800 as compared with the nearly thirteen million. But the sustained drop in prices was far more severe. The *Times* industrial average was down 49 points for the day. General Electric was off 47½; Westinghouse, 34½; Tel. & Tel., 34. Indeed, the decline on this one day was greater than that of all the preceding week of panic. Once again a late ticker left everyone in ignorance of what was happening save that it was bad.

At 1:10 there was a momentary respite—Charles E. Mitchell was detected going into Morgan's, and the news ticker carried the magic word. Steel rallied and went from 193½ to 198. But this time Richard Whitney did not appear; "organized support" was not forthcoming. Support, organized or otherwise, could no longer contend with the wild desire to sell. The market weakened again, and in the last hour three million shares changed hands at rapidly declining prices. Mitchell, by later evidence, was going into Morgan's to get a loan for himself.

The bankers assembled once again from 4:30 to 6:30. They were described as having a "philosophical attitude," and they told the press that the situation "retained hopeful features." But there was a more important clue to what was discussed for the two hours. It was explained at the conclusion that it was no part of the bankers' purpose to maintain any particular level of prices on the market. Their operations were confined to seeing that the market was orderly—that offers would be met by bids at some price and that "air holes," as Mr. Lamont dubbed them, would not be allowed to appear in the market. This was chilling news. To the man who held stock on margin, disaster wore only one face and that was falling prices. He wanted to be saved from disaster. Now he had to comfort himself with the knowledge that his ruin would be accomplished in an orderly and becoming manner.

Tuesday, October 29, was the most devastating day in the history of the New York stock market, and it may have been the most devastating in the history of markets. Selling began at once and in huge volume. The air holes, which the bankers were to close, opened wide. Repeatedly and in many issues there was a plethora of selling orders and no buyers at all. Once again, of course, the ticker lagged—at the close it was two and a half hours behind. By then 16,410,030 shares had been known to have been traded—more than three times the number

that had once been considered a fabulously big day. Despite a closing rally on dividend news, the losses were again appalling. The *Times* industrial average was down 43 points, canceling all of the huge gains of the preceding twelve months. Losses on individual issues were far greater. By the end of trading, members were near collapse from strain and fatigue. Office staffs, already near the breaking point, now had to tackle the greatest volume of transactions yet. By now, also, there was no longer quite the same certainty that things would get better. Perhaps they would go on getting worse.

During the preceding week, the slaughter had been of the innocents. Now it was the well-to-do and the wealthy—the men of affairs and the professionals—who were experiencing the egalitarianism long supposed to be the first fruit of avarice. Where the board rooms were crowded the week before, now they were nearly empty. The new victims had facilities for suffering in private. The great bankers met at noon and again in the evening of the twenty-ninth, but there was no suggestion that they were even philosophical. In truth, their prestige had been falling even more disconcertingly than the market.

During the day the rumor had swept the Exchange that, of all things, they were busy selling stocks, and Mr. Lamont met the press after the evening session with the trying assignment of denying that this was so. It remained for James J. Walker, mayor of New York, to come up with the only constructive proposal of the day. Addressing an audience of motion picture exhibitors, he asked them to "show pictures that will reinstate courage and hope in the hearts of the people."

On the Exchange itself a strong feeling was developing that courage and hope might best be reinstated if the market were closed and everyone were given a breathing spell. This simple and forthright thought derived impressive further support from the fact that everyone was badly in need of sleep. The difficulty was that the announcement of the closing of the Exchange might simply worsen the panic. At noon on the twenty-ninth the issue came to a head. So as not to attract attention, the members of the Governing Committee left the floor in twos and threes to attend a meeting; the meeting itself was held not in the regular room but in the office of the Stock Clearing Corporation below the trading floor. As Richard Whitney—later to go to Sing Sing prison for embezzlement but still the man in charge—described the session, the air quickly became blue with tobacco smoke as the tired and nervous brokers lit cigarettes, stubbed them out and lit fresh ones. Everyone wanted a respite from the agony. Quite a few firms needed a few hours to ascertain whether they were still solvent.

But caution was on the side of keeping the market open at least until it could be closed on a note of strength and optimism. The decision was to carry on till things improved. Again the lights blazed all night. In one brokerage house an employee fainted from exhaustion, was revived and put back to work again.

Next day those imponderable forces were at work which bring salvation just at the moment when salvation seems impossible. Volume was still enormous, but prices were much better—the *Times* industrial average rose 31 points, and individual issues made excellent gains. Possibly it was the reassurances that accomplished the miracle—in any case, these were forthcoming in volume. On the evening of the 29th, Assistant Secretary of Commerce Julius Klein took to the radio to remind the country that President Hoover had said that the "fundamental business of the country" was sound and prosperous. He added, "The main point which I want to emphasize is the fundamental soundness of [the] great mass of economic activities." On Wednesday, Wadill Catchings, the head of the great Goldman, Sachs investment house, announced on returning from a Western trip that general business conditions were "unquestionably fundamentally sound." (The same, it subsequently developed, could not unquestionably be said for companies promoted by Goldman, Sachs. See the extract from the Senate hearing above.) R. R. Reynolds, President of Selected Industries, Inc., another investment trust, said that "The fundamentally strong position of the nation's industries justified confidence." Of more important, perhaps, from Pocantico Hills came the first public statement from John D. Rockefeller in some decades: "Believing that fundamental conditions of the country are sound . . . my son and I have for some days been purchasing sound common stock." Eddie Cantor, a noted comedian (and, as he described himself, victim) of the time, said of the announcement: "Sure, who else had any money left?"

Just before the Rockefeller statement arrived, things looked good enough on the Exchange so that Richard Whitney felt safe in announcing that the market would not open until noon the following day (Thursday) and that on Friday and Saturday it would stay shut. The announcement was greeted by cheers. Nerves were clearly past the breaking point. On La Salle Street in Chicago a boy exploded a firecracker. Like wildfire the rumor spread that gangsters whose margin accounts had been closed out were shooting up the street. Several squads of police arrived to make

them take their losses like honest men. In New York the body of a commission merchant was fished out of the Hudson. The pockets contained \$9.40 in change and some margin calls.

No feature of the Great Crash was more remarkable than the way it passed from climax to anticlimax to destroy again and again the hope that the worst had passed. Even on the thirtieth the worst was still to come, although henceforth it came more slowly. Day after day during the next two weeks prices fell with monotonous regularity. At the close of trading on October 29, the *Times* industrial average stood at 275. In the rally of the next two days it gained more than fifty points, but by November 13, it was down to 224 for a further net loss of fifty-one points.

And these levels were wonderful compared with what were to follow. On July 8, 1932, the average of the closing levels of the *Times* industrials was 58.46. This was not much more than the amount by which the average dropped on the single day of October 28, and considerably less than a quarter of the closing values on October 29. By then, of course, business conditions were no longer sound, fundamentally, or otherwise.

What might be called the everyday history book tells of the Great Depression of the thirties which began with the great stock-market crash of 1929. Among sophisticates—professional students of the business cycle in particular—there was, for a long time, a tendency to decry the importance that this attributed to the stock-market crash as a cause of the depression. The crash was part of the froth rather than the substance of the situation. A depression, it was pointed out, had been in the making since midsummer of 1929, when numerous of the indexes began to turn down.

In this matter the everyday history is almost certainly right, and in recent times the sophisticated historians have come to agree. The market crash (and, of course, the speculation that set the state) was of profound importance for what followed. It shrank the supply of investment funds, and at the same time, it shocked the confidence on which investment expenditure depends. The crash also reduced personal expenditures and deeply disrupted international capital flows and international trade. The effect of all this on economic activity was prompt and very real. Nothing else is a fraction so important for explaining the severity of the depression that followed.

Since it was important, the question inevitably arises whether a similar cycle of speculation and collapse could again occur. The simple answer is of course! Laws have been passed to outlaw some of the more egregious behavior which contributed to the big bull market of the twenties. Nothing has been done about the seminal lunacy which possesses people who see a chance of becoming rich.

NOTE ON GASOLINE RATIONING

The procedure for an effective and *equitable* reduction in gasoline use, the major claim on oil imports and the action to which the next shortage will in any case compel us, need not be complex. Gasoline prices at the pump should be raised by taxes to a penalty level. One thinks of four or five dollars a gallon, although even this is not astonishing by European standards. Then each family should be given stamps, similar to food stamps, allowing a basic purchase for household and pleasure driving at present prices or, if the government wishes to be nice in a perfectly reasonable way, at a level somewhat below. Cars certifiably in use for car pools and business purposes would be given a larger allocation of stamps.

The stamps would be sent in from the service station to the wholesaler along with the money to pay the taxes on the high-priced gallonage. The tax would pay for the lower priced gasoline and the cost of the operation. The stamps would be good for a year, and people would be urged to hold any surplus stamps against emergencies. Expiration would be at the end of the year when there is the least danger of a burst of driving to use them up. The organization to issue the stamp and check against claims would not be slight. People would be required to man extra windows at the post offices and the regional offices of D.O.E. Nothing, alas, can be done without people.

Under this system those of modest income are protected; those in real trouble (and, needless to say, the very affluent) can get more gasoline by paying the price. The shrinkage of gasoline demand, as necessary, can be achieved either by reducing the basic allocation or raising the penalty price. This should be sufficient to ensure oil for home heating as well as to reduce the pressure of overseas demand.

Such a design for managing gasoline (and therewith petroleum) demand at minimum sacrifice will not sit well with the great conservative revolution. More big government. But the more astute of these revolutionaries must be noticing by now that their revolt is in deep trouble—that it is encountering a powerful

counterrevolution in its own ranks. At no time in recent history have we had so many demands for more government and more government regulation, and all from the affluent. Thus the demand after Three Mile Island that nuclear energy, however safe, be made safer—by government action. And after the crash of the DC-10 that air safety regulation be closely reviewed and greatly tightened. And with the fall of Chrysler that the United States government, following those of Britain, France and Italy, get involved in the automobile business. And that, as the price of SALT II, there be more arms spending. And overshadowing all, there has been the demand that Carter get the government going on the production of synthetic fuels. Not even Mobil seems prepared to argue that private enterprise can do this job; recent advertisements have been urging that "energy options," nearly all calling for more pollution, have not been discussed. The alternatives to what is here proposed is to ration wholly by price which is to punish cruelly the average driver and the poor; or it is to ration to those who are willing to waste the most time in lines; or it is to keep our oil imports at the present dangerously, indeed unacceptably, high levels.

Senator BENTSEN. Thank you very much.
Mr. Greenspan, please proceed.

**STATEMENT OF ALAN GREENSPAN, PRESIDENT, TOWNSEND-
GREENSPAN & CO., INC., NEW YORK, N.Y.**

Mr. GREENSPAN. Thank you very much, Mr. Chairman.

Obviously, somebody misread my birthday, because I am here not, obviously, as an expert on the crash, but one who remembers it only in retrospect. As a consequence anything I have to say about the 1929, period puts me in a somewhat different status to my colleagues Professors Heller and Galbraith.

We are here to commemorate the beginning of the greatest economic upheaval in modern history. The contractions and financial panics that took place in the United States prior to the Great Depression were contemporaneously perceived as deep and prolonged, as indeed they were. All fell far short, however, of the devastation that took hold beginning with the collapse of stock prices 50 years ago.

Today's conventional wisdom is that the legislative response to that trauma—deposit insurance to avoid runs on banks, securities legislation to stem stock market speculation, and sophisticated monetary tools to prevent credit panics—will prevent such a disaster from confronting us again. But let us not forget that the crash of 1929 and the despair that followed was in itself a rare event, one which would have been unlikely to be replicated even with the institutional structure that prevailed in the 1920's and earlier.

The danger currently confronting us, in my judgment, is not a deflation of the 1930's type, but rather the consequences of excessively inflationary policies which are rushed into place in response to a credit crisis which is perceived as a replay of the Great Depression.

While there is no fully satisfactory explanation of the sequence of events which began a half century ago, there can be little doubt that the heavy speculation in the stock market followed by its collapse was a key, perhaps the key, factor undercutting investment incentives and business outlays in the period that followed.

Indeed, that we choose this day to commemorate the beginning of the Great Depression presupposes a consensus on its cause. Even today we look at stock market values as a measure of the marginal cost of equity capital or, more importantly, in combination with other measures, as a proxy for investment incentives.

But, unlike the period of mid-1929, equity prices relative to earnings are now low, great caution prevails and few, if any, observers would ascribe speculative excesses to the current stock market.

They lie elsewhere, particularly in the housing market. It's here, if anywhere, that speculative imbalances have surfaced which could threaten the stability of the American economy. Financed by elephantine advances on mortgage debt, residential real estate values have soared. The market value of the average home has nearly tripled in little more than a decade. Those currently selling homes are averaging capital gains of approximately \$20,000.

Increasingly, the demand for homes is being spurred as a sure way of achieving price appreciation from an asset, that is, as a hedge against inflation.

As might be expected, the rate of existing home sales has soared and mortgage debt growth has accelerated as home turnovers at successively higher prices inevitably increases the debt on each house. The annual increase in one-to-four-family home mortgage debt did not top \$20 billion until 1971 and remained under \$50 billion annually until 1976. However, it has been running in excess of \$100 billion a year in each of the past 3 years.

The housing capital gains, whether realized or unrealized, have encouraged households to take on other consumer debt and have enabled to expand purchases of all kinds of goods and services. Meanwhile, the acceleration in inflation has imbued debt with an apparent attractiveness which has caused households to have recourse to it more readily than in the past, but in the process has greatly increased the debt service burden households are now carrying.

As a result, the total of interest and scheduled amortization payments on both mortgage and installment debt currently accounts for 28 percent of cash disposable personal income, up from 19 percent 20 years ago. Moreover, nearly one-fifth of all American families owe no debt at all at this time. Consequently, the four-fifths of families who are debtors must be allocating roughly 35 percent of their cash disposable income for debt service payment. If the average for all debtors is that high, a substantial portion of households must surely be committing closer to 50 percent of their monthly paychecks to debt service.

A sizable number of home purchasers have taken on this inordinately large debt in the expectation that in a few years inflation in general and constantly skyrocketing housing prices in particular would bail them out of their temporarily precarious debt burden. That has indeed been the experience of many home purchasers over the past decade and its continuance in the future is now widely assumed.

However, this could create serious problems for the economy if the continued surge in home prices fails to materialize. Monthly carrying charges on new mortgages already have reached levels which are beyond the means of many prospective home purchasers, even with two incomes. Mortgage lenders are disqualifying a rising number of loan applicants as a result. As the recent softness in home sales continues, the upward pressure on home prices should weaken. A modest decline in home prices would probably have only a small impact on the overall economy.

However, while the probability is surely quite low, housing prices could slip 20 percent, 30 percent, or more in response to sliding home sales and rising interest rates. Such a plunge in prices would wipe out much of the unrealized capital gains which homeowners currently assume is available in case of difficulties.

Moreover, such a massive wiping out of paper profits and reduction in equity would catch many recent buyers with net losses and excessive

debt burdens. Loan delinquencies and foreclosures undoubtedly would rise, creating financial difficulties for both lenders and borrowers. In addition, homeowners probably would be forced to accept a sharp retrenchment in their day-to-day expenditures as they tried to pay off part of their existing debt burden. Certainly the wealth effect which has been a stimulus to consumer spending would turn negative. The cumulative impact of such problems would be far deeper than any recession that is currently envisioned.

But even that, as disturbing as it would be, could not approach the worldwide disaster which occurred in the 1930's. In order for such a debacle to recur, it would have to be brought on by circumstances which were international in scope. The most probable scenarios for such an upheaval, should it ever occur, involve a breakdown of a world financial system unable any longer to finance mounting oil-related balance-of-payments deficits.

Prior to the 1973 oil price increase, international payments were rarely out of balance. Some nations had surpluses and others had deficits, but these shifted around. Beginning in 1974, however, two distinct groups emerged: Those nations with continuous surpluses, OPEC, and those with persistent deficits, non-OPEC LDC's. At present world price relationships, non-OPEC LDC's are running annual current account deficits, on balance, of \$50 billion or more; that is, they must as a group borrow, net, at least \$50 billion each year, cumulatively, year after year, with no way of shunting the cumulative debt onto someone else.

As real oil prices stabilized after 1974, the industrial nations as a group were largely able to balance their accounts. However, with real oil prices again on the rise, chronic OECD nation deficits may again emerge as well.

Initially, the oil importing countries did not have much difficulty borrowing in world financial markets to cover their deficits, because they had borrowed relatively little previously and had substantial unused lines of credit.

It soon became evident that the major oil financing problem was not the recycling problem about which most everyone had been concerned 5 years ago. The financial institutions have been able to channel funds as required. The difficulty in financing the deficits increasingly has centered on the question of the creditworthiness of the borrowers, whether governments, private firms, or citizens.

Today, it is clear that the deterioration in the borrowing capabilities of much of the world cannot go on indefinitely. Deficits, cumulating year after year and jumping periodically as the real price of oil rises, eventually will create such a huge debt structure that most borrowers will find it difficult to meet the interest and amortization charges on the loans. The world economic system is not in balance with average oil prices in excess of \$20 per barrel.

Under these conditions, the risk that the least creditworthy of the world's oil importing nations will be forced into default on their loans is troublesome.

The major central banks, of course, have contingency plans which would be immediately implemented in the event of a cascading series of financial failures in the Eurocurrency markets. We have every reason to hope that such emergency measures would be sufficient to stem the collapse before it ruptured the world's financial fabric and destroyed the confidence underlying the international economic system. But can we really be certain? Unfortunately, the answer is no, for several reasons.

Despite the extraordinarily complex development of international finance since the end of World War II, our theoretical understanding of how the Eurocurrency system functions—its impact on inflation, investment real growth, and even interest rates—is remarkably sparse. There are very likely to be unimagined structural inadequacies in these new financial innovations which the standard bailout procedures of the central banks do not fully address.

There is evidently a significant amount of interbank depositing in the Eurocurrency system and how this might escalate any problems which may develop is not fully clear. Moreover, the spread between the cost of funds and the rates received on relending is exceptionally narrow—too narrow in the eyes of many bankers to fully fund the risks involved in such lending.

Finally, the inflationary expansion of the world's credit base has reduced capital-asset ratios of banks in the United States and abroad to a point where they no longer provide protection should a bank get into trouble—it would have to be bailed out by its central bank, international agencies, or be absorbed by institutions not yet in difficulty.

But a cascading set of bankruptcies in the Eurocurrency markets, brought on by defaults on LDC loans, is by no means the only threat. A related danger is the evident excess of dollar-denominated assets in government and private portfolios throughout the world. Dollars currently account for approximately three-fourths of net Eurocurrency liabilities—and to whatever extent one can infer from stated preferences and market performance—a considerable diversification of assets into other currencies is desired. The support for the dollar substitution account within the IMF is the most recent manifestation of displeasure over the excess of dollar liabilities in the world.

If inflation in the United States should continue relative to rates in Europe and Japan to a point where a cumulative disaffection with the dollar as a store of purchasing power erupts into an attempt at massive diversification, either the dollar will fall abruptly or, worse, central bank support will create inflationary excesses of the support currencies.

A collapse in dollar exchange rates could create severe international financial uncertainty and retrenchment—and could trigger the bankruptcy scenario outlined above.

The problem is that a shift in portfolio preference for, say, marks or francs for dollars does not simply delete dollars from the world currency system.

We know, of course, that only if the loans denominated in dollars are liquidated concurrently with the liquidation of the deposits can a major reduction in outstanding Eurodollar balances occur. But what exactly does that mean? Put simply, there is no way to wave a magic wand and eliminate the more than \$700 billion in external liabilities of American residents and the Eurodollar market. Behind these dollar claims is an equivalent sum in loans outstanding also denominated in dollars.

When the treasurer of a multinational corporation sells \$1 million for marks, the \$1 million do not disappear. Unless the offsetting asset is liquidated, the dollars merely change hands. Hence, short of a massive worldwide credit contraction, the aggregate level of liabilities cannot be significantly reduced in the near future.

The effects are similar to those seen when the price of the stock of a company declines. Heavy selling of shares, for example, of General Motors, may sharply reduce their price, that is, their exchange rate against dollars, without altering the number of shares outstanding.

The aggregate value of the shares will decline until progressively lower prices finally unearth willing holders for the stock, but the total number of shares does not change in the process.

In the same way, the total number of dollars in the Eurocurrency market does not change as a result of a decline in the exchange rate of the dollar, although their value in terms, for example, of deutsche marks, may fall. Short of a massive credit contraction worldwide, there is no way to make outstanding dollar balances disappear or turn into deutsche marks or Swiss francs.

With the world's central banks standing ready to flood the world's economies with paper claims at the first sign of a problem, a full-fledged credit deflation reminiscent of the 1930's seems out of the question. The real threat to the western industrial economies is the inflationary consequences which an attempt to fend off a 1929-32 type deflation would trigger.

The overriding mandate of the world's monetary authorities to prevent a credit deflation almost assures policy overkill at the first sign of credit stringency and falling prices. Deflation would be quickly aborted—to be followed shortly by accelerating inflation and economic stagnation.

In despair, policymakers, I fear, are likely to retreat to increased symptom-fighting—price, wage, and credit controls—and a broad expansion of economic regimentation. Such a response would reinforce the stagnation and economic malaise.

Thus, in today's political and institutional environment, a replay of the Great Depression is the Great Malaise. It would not be a period of falling prices and double-digit unemployment, but rather, an economy racked with inflation, excessive unemployment, falling productivity and little hope for a more benevolent future.

I should like to emphasize that a breakdown of the world financial and economic systems is still a very low probability outcome. There is a remarkable resiliency in the basic capitalist institutions which support most Western societies. Extraordinary shocks are required to undermine them. While I do not want to appear the protagonist for Pollyanna, I trust on the centennial of Black Friday it will still be commemorated as the beginning of the greatest economic upheaval in modern history.

Thank you, Mr. Chairman.

Senator BENTSEN. Thank you, Mr. Greenspan.

Mr. Heller, please proceed.

**STATEMENT OF WALTER W. HELLER, PROFESSOR OF ECONOMICS,
UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINN.**

Mr. HELLER. Mr. Chairman, members of the committee, I am pleased to have this opportunity to appear before the Joint Economic Committee on the 50th anniversary of Black Tuesday to contemplate the vulnerability of the U.S. economy to a deep and prolonged depression, and appearing with Messrs. Galbraith and Greenspan doubles the pleasure while halving the risk.

In this opening statement, I would like to address three major questions: First, can it happen again? I will argue that it can't happen here—that is, a crash like 1929 and a plunge into a decade of depression like the 1930's are simply not in the cards. Second, while it can't happen here, can something else of a different nature send the economy and the stock market into a deep and sustained tailspin—oil cutoffs,

rampant inflation, or a renewed round of nationalism come to mind. Third, ruling out an economic apocalypse, what is a reasonable prognosis for the health of the U.S. economy as it moves out of the sobering 1970's and into the uncertain 1980's?

Mr. Chairman, to save time, I will pick and choose from my prepared statement on the crash and the depression—much of that has already been covered—and then follow my prepared statement more closely on the sources of unease, and a brief look at the 1980's.

Under the great-crash question, I think nothing illustrates more vividly why Government gets in the act than the free-wheeling and free-booting stock market of the 1920's and the devastating string of bank failures in the 1930's. It was the age of the unfettered free market: no requirements to register stock, no disclosure rules, no limits on who could lend money to brokers, no margin requirements, no legal barriers to stock price manipulations, no limits on conflict of interest between banks and their securities firm affiliates. In other words, no requirement of arm's-length transactions.

For all practical purposes, these abuses were ended by legislation enacted in 1933-34. I think few would deny that it is better to put up with the Government presence in the form of SEC and banking regulators, even if a bit overbearing or overzealous, than to let the buccaneers and the bucketshops fleece the public, feed the speculative frenzy, and rock the economic boat as they did 50 years ago.

To be sure, a secretary at Hardee's Food Systems can still turn a \$46,000 profit on advance knowledge of a takeover offer, but that is a far cry from the hundreds of millions pocketed by the likes of Samuel Insull from his utility holding company pyramid; Albert Wiggin, from short-selling the stock of his own Chase National Bank; and the president of the New York Stock Exchange, Richard Whitney, from embezzlement. Like Whitney, by the way, the secretary was caught.

Wall Street is a different world in a much deeper sense, as well. It played a much more central role in the soul and psyche of the American economy in the bad old days. It was front page news, as you have illustrated, Mr. Chairman; 80 percent of all stock and bond financing in 1928-29 was derived from new stock issues. Last year the percentage was down to 12.

The direct impact on consumption was very much greater at that time. It is estimated that the wealthiest 5 percent of American families who were the main investors directly hit by the market crash controlled over 30 percent of consumer purchasing power. Thanks mainly to economic growth and reduced inequality of opportunity and of income, the proportion of total consumption related to the stock market is far less today.

I discuss some other built-in defenses against the stock market crash. I would like to turn away from the financial factors and consider the progress in economic understanding and measurement, for all its remaining weaknesses, the advances in fiscal and monetary policy, the increase in size and scope of government, and the structural changes in the U.S. economy as major forms of insurance against the kind of demand collapse that produced that dolorous decade of unemployment averaging over 18 percent and reaching a peak of 25 percent.

The perversity of Government tax, budget, monetary, and trade policies in the early 1930's has to be recalled in chapter-and-verse terms to be believed. Our fiscal policy levers, for example, were put in

reverse. Witness the petition by the members of the Johns Hopkins University faculty inserted in the Congressional Record when we were deep into the depression. In 1932 they said:

The two primary and essential measures called for by the present situation are evident. The first is the prompt adoption of a budget balanced both by vigorous retrenchment in the expenditure of all Federal departments and by adequate emergency taxation.

Responding to widespread calls for a balanced budget and the specific tax proposals of President Hoover, the Congress in 1932 reduced income tax exemptions, boosted personal tax rates from 1½ percent to 4 percent in the bottom bracket and from 25 percent to 63 percent in the top bracket; boosted taxes on corporations; and introduced temporary excise taxes on electric energy, gas, and oil, automobiles, selected durable goods, telephones, furs, jewelry, and so on—most of which were finally removed in 1965.

To provide just a bit more feel of the conventional wisdom and economics of those days, I exhumed this summary of a questionnaire that was sent out in the mid-1930's—I don't know the precise date—about a proposed \$5 billion relief program. I want you to hear how it was characterized by some names you may recall:

Irving Fisher: "Would have ghastly results," was his comment. Lionel Edie: "Bonds could not be sold." Professor Bullock—I believe one of Professor Galbraith's professors: "Whole project unwise." Professor Adams at Yale: "Loan could not be floated." And finally, Professor Plehn of California: "A desperate leap in the dark."

Well, it was a different age, and if the committee would like to put this questionnaire in the record, it might just provide a little of that realism, about economic thinking in the thirties.

Senator BENTSEN. Without objection, that will be done.

[The questionnaire referred to follows:]

ANSWERS TO QUESTIONS ABOUT \$5,000,000,000 RELIEF PROGRAM
[Responses to a questionnaire sent to leading U.S. economists in the mid-1930's]

	Pearson (Cornell)	Warren Persons	H. Parker Willis	Irving Fisher	Lionel Edie	Hammond (Ohio)	Warren (Cornell)	Virgil Jordan	Bogart- Dickinson	Anderson	H. A. Wallace	Bullock	Burgess	Donham (Harvard)	Adams (Yale)	Plehn (Calif.)
1. Would it be effective in unemployment relief?	Yes.....	Yes.....	No.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	No.....	No.....	No.....	Yes.....	No.....	No.....
2. Would it employ the already employed rather than the unemployed?	Some, not serious.	No.....	(?).....	Yes.....	Not seriously.	Yes.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	No.....	No.....	No.....	Yes.
3. Would it support wages now and let them fall later?	Help stop decline.	No.....	Yes.....	Yes.....	Probably.	Yes.....	Aid all workers.	Low wages should be paid.	No.....	Yes.....	Yes.....	Yes.....	Yes.....	(?).....	No.....	Yes.
4. Should labor saving devices be used?	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	Not abandon the project.	Yes.....	Yes.....	Yes.....	No.....	Yes
5. Would it restore general activity?	No.....	Yes.....	No.....	No.....	No.....	No.....	Yes.....	No.....	Yes.....	No.....	No.....	No.....	No.....	Would help.	Would help.	No.
6. If activity were restored would it last?	No.....	Yes.....	No.....	Yes, if it worked.	No.....	No.....	Yes.....	Perhaps.	Yes.....	No.....	No.....	No.....	No.....	Yes.....	Yes.....	No.
7. Have similar projects succeeded abroad?	No.....	Yes.....	No.....	No.....	No adequate test.	(?).....	No test.	No test.	No.....	No.....	No.....	No.....	No.....	No.....	No.....	No.
8. Would it harm market for other bonds?	Yes.....	No.....	Hardly.	Yes.....	Yes.....	Not much.	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	No.
9. Would it cramp reserve system?	No.....	No.....	Yes.....	Probably not.	Yes.....	No opinion.	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	Yes.
10. Would increased indebtedness be burdensome?	Yes.....	No.....	Yes.....	No.....	Probably not.	No.....	No.....	No.....	Not necessarily.	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	Yes.
11. Would price increases restrict private building?	Not much.	No.....	(?).....	Decidedly yes.	No.....	No.....	No.....	No.....	No.....	Yes.....	Yes.....	Yes.....	Yes.....	No.....	Yes.....	For a time.

Mr. HELLER. One needn't dwell at length on the fiscal revolution that has changed all of this. Part of it is the greater leverage provided by a larger Federal Government and greater Government employment—20 percent of nonfarm jobs against 10 percent 50 years ago. And such jobs tend to grow, not shrink, in a sustained slump. Then we build in cushions in the form of progressive income taxes. And about \$225 billion of income maintenance programs, and the positive use of tax cuts, jobs programs, and the like, represent an important defense against any collapse of aggregate demand as in the 1930's.

Contrasts also abound in other areas of policy and structure. Against the drastic decline in money supply in the Great Depression, even a Volckerized monetary policy today has a rising, not a falling, money supply as its annual target. The objective is restraint, not selfdestruction. I don't think we will ever go through the foolishness of the Smoot-Hawley tariff again.

Let me turn now to the sources of unease in today's situation.

Is another slump of the magnitude and duration of the Great Depression—presumably from different sources and less amenable to the defenses and safeguards I have just reviewed—a realistic prospect in the foreseeable future? A possibility? Perhaps. A likelihood? No; and yet, it is appropriate for your committee to examine all contingencies, even the apocalyptic ones. Let me characterize my three areas of unease as follows:

First, a demand debacle of the 1930's is inconceivable. An inflation of the 1980's is not. Second, an unemployment disaster of the 1930's is unthinkable. An inflation disaster of the 1980's is unlikely but not unthinkable. Third, an epidemic of economic nationalism—the blind protectionism, Schachtian exchange controls, autarchy, and beggarthy-neighbor policies of the 1930's—is next to unthinkable. But a rising tide of what might be called modern economic mercantilism—the use, not of the tariff bludgeon, but of more subtle and devious devices like competitive interest rate escalation, currency devaluations, voluntary quotas, and nontariff barriers—remains a disturbing possibility.

The potential supply debacle basically boils down to one word: Oil. A major, sustained cutoff of mideast oil could, for a time at least, plunge us into a supply-side depression. Any sizable and persistent disruption of supplies—whether from acts of sabotage or terrorism or from political turmoil in Iran, or unrest among the Shiite Moslems in Iraq, or the whims of Qaddafi in Libya, or Saudi Arabian displeasure with our Palestinian policy—would cut deeply into our productive capabilities and even more deeply into those of our trading partners.

It is difficult to quantify the threat, but if one is looking for the most readily identifiable source of deep trouble for the U.S. economy, there it is. If it were to occur, it would put the international cooperative mechanism and spirit of the free world to a severe test. The logical response would be to band together ever more closely in order to control and limit the damage. But the dangers of a falling out and a new burst of economic nationalism should not be discounted.

That brings us to the second source of latent danger, the tensions that are building up in international money and trade markets, tensions that are magnified by the large and growing OPEC surplus. since Alan Greenspan has covered this in detail, I will move on to the concerns about inflation. That is really the most vexing problem that is immediately before us—our stubborn double-digit inflation.

In spite of some of the lowest Government deficits and highest interest rates in the industrial world, in spite of a good record in restraining average wage increases in the first year under the wage-price guidelines, this country has been making progress backward on inflation. Under the drive of a 60 percent rise in world oil prices and sharp increases in the prices of food and home ownership—inflation sources that largely lie outside the scope of either voluntary restraints or mandatory controls—inflation will be solidly in the double digits this year.

Under the impact of coming recession, hoped-for tapering of oil price increases, large grain crops, and eventual topping out of mortgage rates, inflation should drop out of the double digits by the end of winter—and I give myself till the end of a Minnesota winter, which gives me an extra month or two—and fall to 8 percent or less by the end of 1980.

What is neither widely realized by our oversea critics nor fully appreciated here at home, is that Government finances of recent years are not the source of trouble. Government has been shrinking as a percentage of GNP since 1975, when Federal-State-local spending was 35 percent of our GNP. It is 32½ percent today. OECD comparisons show U.S. budget deficits—Federal, State, local combined—as the lowest of any major industrial country for the 3 years 1977-79; less than 1 percent of GNP here against 3 percent in Germany, 6 percent in Japan, and 12 percent in Italy.

In that connection, of course, our spending through Government is vastly less than in the countries, many of the countries, that are criticizing our profligacy today. I was interested to see a chart in Holland the other day showing that they spend 62 percent of their net national income through government. Germany spends nearly 50 percent. We spend 37 percent.

More specifically, with double-digit inflation in view, the Federal budget is programed for sharp fiscal restraint: with an "inflation tax" of over \$10 billion a year; with social security payroll taxes rising \$18 billion in 1979-81; and with an expenditure squeeze of perhaps \$20 billion in these years, representing cutbacks in the trend increase in expenditures, we are undergoing a swing of over \$60 billion toward fiscal restriction in 1979-81.

The OPEC oil drag or tax, including domestic price decontrol, is siphoning an added \$30 billion, net, out of the economy this year, a drag that may double by 1981.

So, fiscal policy has to contend with a total drag of over \$120 billion in purchasing power in the years 1979, 1980, and 1981.

Now, if members of the committee suspect that I am not-so-subtly suggesting that, quite consistent with a continued assault on inflation, we will have to remove some of this tax overburden before 1980 is out, their suspicions are well justified.

Tax cuts or not tax cuts, one cannot be complacent about inflation. Since I first said 10 years ago that "inflation has sunk its roots deep in the U.S. economy," it has in fact sunk its roots deeper and deeper. And every round in the battle against inflation finds it higher and higher. And yet I do not expect the U.S. economy to be brought to its knees by hyperinflation. I say this in part because I believe the conditions in the 1980's to be more favorable to holding inflation in check than the conditions of the 1970's.

But as a fallback position, I believe that if all the efforts of guided self-restraint should fail, and inflation continues to escalate, the country will choose mandatory controls before it jumps off the precipice to another Great Depression. As a steadfast opponent of such controls, I say this reluctantly. But at some point, still far down the road, the country may find that the costs of a rampant inflation—or the alternative costs of taking the fiscal-monetary cure via years of stagnation or even depression—are greater than even the heavy costs of a period of mandatory controls.

At that point, well short of the precipice of runaway inflation or deep depression, one would call on the heavy hand of such controls to bring the self-propelling price-wage spiral or carousel back into a lower orbit. If fiscal-monetary moderation went hand-in-hand with the enforced deescalation of the vitiating circle of pay-price or price-pay increases, the controls could be removed after a limited period without a self-defeating pop-up effect. I do not advocate the course I have just outlined. But if it came to the point that only such a course stood between us and runaway inflation or induced depression, I might join the infidels.

As one looks into the 1980's, one cannot readily dismiss the heavy shadows of stubborn inflation, possible oil cutoffs, and world instability. But those heavy clouds should not be permitted to blot out the considerable rays of economic sunshine that may brighten the U.S. scene in the coming decade.

First of all, demographics will be working for us. A maturing labor force will make for a better productivity performance. Workers in the 25–44 age group—the prime age group in terms of skills, ambitions, and growing experience—will increase to more than 60 million against 47 million today. At the same time, the influx of inexperienced teenagers and women into the labor force will slacken. Against a 21 percent increase in the labor force in the 1970's, we will have only a 12 percent to 14 percent increase in the 1980's.

Productivity should be given another boost as capital investments step up in the 1980's. The substitution of labor for capital that took place in the 1970's should be reversed in the 1980's. The demographic thrust will be reinforced by Government policies that are favorable toward investment. For example, more generous depreciation is almost a foregone conclusion as part of the next tax cut. Moreover, in the latter half of the 1980's, the high-spending members of the postwar baby boom will be graduating into the higher saving ages.

The genuine efforts to cut back economic regulations that stifle competition and cut the costs of social regulations to protect health, safety, and environment will be paying off in the 1980's. Stronger competition and lower compliance costs will provide at least some modest help in the battle against inflation.

Finally, it is to be constantly kept in mind that as we face the problems of the 1980's, we still draw on the strongest economy and the highest standard of living in the world. And as everyone knows who has traveled overseas recently, we are also a country of bargains—our consumer goods, most of our real estate, and our business enterprises offer outstanding buying and investment opportunities to the rest of the world. This should bring in considerable foreign capital to the United States of the 1980's and, in the process strengthen the dollar.

With reasonably good policy and reasonably good luck, the great crash and the Great Depression, after having their brief spell in the 50th anniversary spotlight, will return to their accustomed position as dim memories of a buried past. Thank you.

[The prepared statement of Mr. Heller follows:]

PREPARED STATEMENT OF WALTER W. HELLER

I am pleased to have this opportunity to appear before the Joint Economic Committee on the 50th anniversary of "Black Tuesday" to contemplate the vulnerability of the U.S. economy to a deep and prolonged depression. And appearing with Messrs. Galbraith and Greenspan doubles the pleasure while halving the risk.

In this opening statement, I will address three major questions:

First, can it happen again? I will argue that it can't happen here, that is, a crash like 1929 and a plunge into a decade of depression like the 1930's are simply not in the cards.

Second, while it can't happen here, can't something else of a different nature, the economy and the stock market into a deep and sustained tailspin? Oil cut-offs, rampant inflation, or a renewed round of economic nationalism come to mind.

Third, ruling out an economic apocalypse, what is a reasonable prognosis for the health of the U.S. economy as it moves out of the sobering seventies and into the uncertain eighties?

The temptation to dwell on why "it" can't happen here is almost irresistible. But to leave some room and time for what could happen here, I will limit myself mostly to a list of points and counterpoints. A matched list of yesterday's causes of the Great Crash and Great Depression and today's defenses and safeguards against such disasters provides plenty of reassurance that, whatever the nature of future crises, they won't resemble those of the thirties.

THE GREAT CRASH

Not just the stock market, but much of our national financial structure came tumbling down around our ears in the early 1930's. The stock market slipped from its 1929 peak of 381 on the Dow-Jones Industrial Average to a 1932 low of 36 (equivalent to a drop from the nearly-900 earlier this month to 85). In 1929-33, banks failed by the thousands, 9,765 in all. The money supply shrank by a third. The liquidity binge of the twenties turned into the liquidity squeeze of the thirties.

Nothing illustrates more vividly "why government gets in the act" than the free-wheeling and freebooting stock market of the 1920's and the devastating string of bank failures in the 1930's:

It was the age of the unfettered free (stock) market. No requirements to register stock, no disclosure rules, no limits on who could lend money to brokers, no margin requirements, no legal barriers to stock price manipulation, no limits on conflicts of interest between banks and their securities-firm affiliates.

For all practical purposes, these abuses were ended by legislation enacted in 1933-34 that set up the Securities and Exchange Commission to police the securities industry, separated commercial and investment banking, required registration and disclosure for stocks sold to the public, prohibited manipulation, and gave the Federal Reserve Board responsibility for setting margin requirements and regulating stock market credit. Few would deny that it is better to put up with the government presence—in the form of SEC and banking regulators, even if a bit overbearing or over-zealous—than to let the buccaneers and bucket shops fleece the public, feed the speculative frenzy and rock the economic boat as they did 50 years ago. To be sure, a secretary at Hardee's Food Systems can still turn a \$46,000 profit on advance knowledge of a takeover offer, but that's a far cry from the hundreds of millions pocketed by the likes of Samuel Insull from his utility holding company pyramid, Albert Wiggin from short-selling the stock of his own Chase National Bank, and the President of the New York Stock Exchange, Richard Whitney, from embezzlement. (Like Whitney, by the way, the secretary was caught.)

Wall Street is a different world in a much deeper sense as well. It played a much more central role in the soul and psyche of the American economy in the "bad old days.":

Market performance was front-page news again and again in 1929-30, and when the market fell flat, it was a body-blow to public confidence.

The central role of the market went far beyond psychological impacts. For example, 80 percent of all stock and bond financing in 1928-29 was derived from new stock issues. In 1978, the percentage was down to 12 percent.

The direct impact on consumption was very much greater then than now: 50 years ago, it is estimated that the wealthiest 5 percent of American families—the main investors directly hit by the market crash—controlled over 30 percent of consumer purchasing power. Thanks mainly to economic growth and reduced inequality of opportunity and income, the proportion of total consumption related to the stock market is far less today.

The ease of raising money in the stock market also led to some of the debilitating imbalance between investment and consumption in the 1920's. While output of mass consumer goods rose at less than a 3 percent annual rate in the 1920's, capital goods output increased at an annual average rate of over 6 percent. This disparity was related in part to the insatiable appetite for new stock issues but even more to the booming profits growing out of a 43 percent jump in worker productivity in the 1920's while wages rose only 20 percent. Support of consumer income through both more generous wage increases and over \$200 billion annually of government transfer payments has made those disparities a thing of the past.

The stock market crash triggered a staggering liquidity squeeze—not just a liquidity crunch of the 1974 variety but a wrenching one-third shrinkage of the money supply from 1929 to 1933 interwoven with the dominoes effect of nearly 10,000 bank failures, the unwillingness of the Fed to be a lender of last resort to major financial institutions, and a worldwide financial crisis that brought its own downward spiral of liquidity and widespread defaults by overseas borrowers from American banks and bondholders. Today's built-in defenses against such contingencies are impressive:

The Fed knows better than to let money shrink as in the thirties, and its willingness to serve as lender of last resort has forestalled any chain reaction from a Franklin National or Herstatt bank failure or a Penn Central bankruptcy.

Insurance of bank deposits up to \$40,000 per depositor by the Federal Deposit Insurance Corporation is a safeguard of critical importance.

International cooperation through central bankers and the IMF, OECD, and other international agencies reduces (though it does not remove) the dangers arising from our international financial system.

THE GREAT DEPRESSION

Aside from financial factors, one must rate the progress in economic understanding and measurement, the advances in fiscal and monetary management, the increase in the size and the scope of government, and the structural changes in the U.S. economy as major forms of insurance against the kind of demand collapse that produced that dolorous decade of unemployment averaging over 18 percent and reaching a peak of 25 percent.

The perversity of government tax, budget, monetary, and trade policies in the early thirties has to be recalled in chapter-and-verse terms to be believed. Our fiscal policy levers, for example, were put in reverse:

The Keynesian concept of demand management and fiscal activism had not been born. Witness the petition by 62 members of the Johns Hopkins University faculty inserted in the Congressional Record on June 1, 1932: "The two primary and essential measures called for by the present situation are evident. The first is the prompt adoption of a budget balanced both by vigorous retrenchment in the expenditures of all Federal departments and by adequate emergency taxation."

Responding to widespread calls for a balanced budget and the specific tax proposals of President Hoover, the Congress in 1932 reduced income tax exemptions, boosted personal tax rates from 1½ percent to 4 percent in the bottom bracket and from 25 percent to 63 percent in the top bracket; boosted taxes on corporations; and introduced "temporary" excise taxes on electric energy, gas and oil, automobiles, selected durable goods, telephones, furs, jewelry, and so on (most of which were finally removed in 1965).

True, after the initial budget retrenchment, both federal spending and federal deficits rose substantially during the Roosevelt Administration. But a Federal budget running at only 3 percent of GNP at the beginning of the decade and under 10 percent at the end was no match for the forces of depression.

One need not dwell at length on the fiscal revolution that has changed all this:

Part of it is simply the greater leverage provided by a larger Federal government, now constituting roughly 21½ percent of GNP. And Federal, State, and local governments now provide about 20 percent of all non-farm jobs, against 10 percent fifty years ago—such jobs would tend to grow, not shrink, in a sustained slump.

With the growth of government have also come changes in the structure of both taxes and spending that cushion downturns. Reliance on such automatic stabilizers as progressive income taxes plays a considerable role in this cushioning (though the impact of inflation in pushing up money incomes even when real incomes fall has blunted and occasionally reversed the effect). The growth of income maintenance programs, ranging from food stamps to unemployment compensation to public assistance to social security benefits—now running something like \$225 billion a year against zero 50 years ago—provides landing nets under the incomes of a large fraction of the population. A 1 percent increase in unemployment triggers roughly \$18 billion of increased transfer payments and reduced tax liabilities.

Apart from these automatic effects, the positive use of tax cuts, jobs programs, and the like, represent an important defense against any collapse of aggregate demand as in the 1930's.

Contrasts also abound in other areas of policies and economic structure:

Against the drastic decline in money supply in the Great Depression, even a Volckerised monetary policy today has a rising, not a falling, money supply as its annual target. The objective is restraint, not self-destruction.

The Smoot-Hawley Tariff Act of 1930 is another case in point. Precisely at the time when the United States should have been letting its debtors export more so that they could pay their debts, and precisely at the time when our leadership in keeping markets free was desperately needed, we erected high tariff walls and touched off a worldwide tariff war. We depreciated the dollar and torpedoed the World Economic Conference in London. International economic cooperation not just in monetary affairs but in lowering tariff walls and maintaining consultation and some coordination through economic summits, has come a long way in the past 50 years.

Today's job structure in the U.S. economy is also much less conducive to a steep slide in the economy. In 1929, two-thirds of the labor force worked in industries that produced or transported goods, while only one-third worked in service industries. Today, the recession-responsive goods industries provide only one-third of the total jobs, while the more stable service industries provide two-thirds.

SOURCES OF UNEASE

Is another slump of the magnitude and duration of the Great Depression—presumably from different sources and less amenable to the defenses and safeguards I have just reviewed—a realistic prospect in the foreseeable future? A possibility? Perhaps. A likelihood? No. And yet, it is appropriate for your committee to examine all contingencies, even the apocalyptic ones. Let me characterize my three areas of unease as follows:

A demand debacle of the thirties is inconceivable. A supply debacle of the eighties is not.

An unemployment disaster of the thirties is unthinkable. An inflation disaster of the eighties is unlikely but not unthinkable.

An epidemic of economic nationalism—the blind protectionism, Schachtian exchange controls, autarchy, and beggar-thy-neighbor policies of the 1930's—is next to unthinkable. But a rising tide of what might be called modern economic mercantilism—the use, not of the tariff bludgeon, but of more subtle and devious devices like competitive interest rate escalation, currency devaluations, voluntary quotas, and nontariff barriers—remains a disturbing possibility.

The potential supply debacle basically boils down to one word: oil. A major, sustained cut-off of Mideast oil could, for a time at least, plunge us into a supply-side depression. Any sizeable and persistent disruption of supplies—whether from acts of sabotage or terrorism or from political turmoil in Iran, or unrest among the Shiite Moslems in Iraq, or the whims of Khaadafi in Libya, or Saudi Arabian displeasure with our Palestinian policy—would cut deeply into our productive capabilities and even more deeply into those of our trading partners. It is difficult to quantify the threat, but if one is looking for the most readily identifiable source of deep trouble for the U.S. economy, there it is. If it were to occur, it would put the international cooperative mechanism and spirit of the free world to a severe test. The logical response would be to band together ever more closely in order to control and limit the damage. But the dangers of a falling out and a new burst of economic nationalism should not be discounted.

That brings us to the second source of latent danger, the tensions that are building up in international money and trade markets, tensions that are magnified by the large and growing OPEC surplus:

Although the industrial world completed the Tokyo Round in the face of strong protectionist pressures, the temptations to impose new trade restrictions either directly or through currency devaluation remain strong.

Even with rising exports, economic slowdown, and the prospect of a current-account deficit in the United States, the dollar remains vulnerable to the widespread desire to diversify into other currencies. No matter how much we respond to the demands of central bankers and other authorities abroad to exert "self-discipline", the urge to reduce dollar holdings will continue to threaten the exchange value of the dollar.

In exercising that self-discipline by boosting interest rates and tightening credit, the Fed has reduced the odds on a flight from the dollar but increased the odds on worldwide escalation of interest rates.

Interest rate warfare would spell slower growth everywhere.

I see no early end to the stresses and strains and jockeying for position on the international economic front. It will get worse before it gets better. But I don't expect the industrial world to repeal 50 years of progress in international economic cooperation and ethics and return to the unseemly nationalism of the early thirties.

That brings us to the most vexing problem immediately before us, namely, our stubborn double-digit inflation. In spite of some of the lowest government deficits and highest interest rates in the industrial world, in spite of the sharp swing toward fiscal restraint we are now undergoing, and in spite of a good record in restraining average wage increases in the first year under the wage-price guidelines, this country has been making progress backwards on inflation. Under the drive of a 60 percent rise in world oil prices and sharp increases in the prices of food and home ownership—inflation sources that largely lie outside the scope of either voluntary restraints or mandatory controls—inflation will be solidly in the double-digits this year. Under the impact of coming recession, hope-for tapering of oil price increases, large grain crops, and eventual topping out of mortgage rates, inflation should drop out of the double digits by the end of winter and fall to 8 percent or less by the end of 1980.

What is neither widely realized by our overseas critics nor fully appreciated here at home, is that government finances of recent years are not the source of the trouble:

Government has been shrinking as a percentage of GNP since 1975, when Federal-State-local spending was 35 percent of GNP. It is 32½ percent today.

OECD comparisons show U.S. budget deficits (Federal, State and local combined) as the lowest of any major industrial country for the 3 years 1977-79: less than 1 percent of GNP against 3 percent in Germany, 6 percent in Japan, and 12 percent in Italy.

More specifically, with double-digit inflation in view, the federal budget is programmed for sharp fiscal restraint: with an "inflation tax" of over \$10 billion a year; with social security payroll taxes rising \$18 billion in 1979-81; and with an expenditure squeeze of perhaps \$20 billion in these years (representing cutbacks in the trend increase in expenditures), we are undergoing a swing of over \$60 billion toward fiscal restriction in 1979-81.

The OPEC oil drag or tax (including domestic price decontrol) is siphoning an added \$30 billion, net, out of the economy this year, a drag that may double by 1981.

If members of the Committee suspect that I am not-so-subtly suggesting that, quite consistent with a continued assault on inflation, we will have to remove some of this tax overburden before 1980 is out, their suspicions are well justified.

Tax cuts or no tax cuts, one cannot be complacent about inflation. Since I first said 10 years ago that "inflation has sunk its roots deep in the U.S. economy," it has in fact sunk its roots deeper and deeper. And every round in the battle against inflation finds it higher and higher. And yet I do not expect the U.S. economy to be brought to its knees by hyper-inflation. I say this in part because I believe the conditions in the 1980's to be more favorable to holding inflation in check.

But as a fallback position, I believe that if all efforts of guided self-restraint should fail, and inflation continues to escalate, the country will choose mandatory controls before it jumps off the precipice to another Great Depression. As a steadfast opponent of such controls, I say this reluctantly. But at some point, still far down the road, the country may find that the costs of a rampant inflation—

or the alternative costs of taking the fiscal-monetary cure via years of stagnation or even depression—are greater than even the heavy costs of a period of mandatory controls. At that point, well short of the precipice of runaway inflation or deep depression, one would call on the heavy hand of such controls to bring the self-propelling price-wage spiral or carousel back into a lower orbit. If fiscal-monetary moderation went hand-in-hand with the enforced de-escalation of the vitiating circle of pay-price or price-pay increases, the controls could be removed after a limited period without a self-defeating pop-up effect. I do not advocate the course I have just outlined. But if it came to the point that only such a course stood between us and runaway inflation or induced depression, I might join the infidels.

A BRIEF LOOK INTO THE 1980'S

As one looks into the eighties, one cannot readily dismiss the heavy shadows of stubborn inflation, possible oil cut-offs, and world instability. But those heavy clouds should not be permitted to blot out the considerable rays of economic sunshine that may brighten the U.S. scene in the coming decade.

First of all, demographics will be working for us:

A maturing labor force will make for a better productivity performance. Workers in the 25-44 age group—the prime age group in terms of skills, ambition, and growing experience—will increase to more than 60 million against 47 million today.

At the same time, the influx of inexperienced teenagers and women into the labor force will slacken. Against a 21 percent increase in the labor force in the 1970s, we will have only a 12 percent to 14 percent increase in the 1980's.

Productivity should be given another boost as capital investments step up in the 1980's. The substitution of labor for capital that took place in the seventies should be reversed in the eighties. The demographic thrust will be reinforced by government policies that are favorable toward investment. For example, more generous depreciation is almost a foregone conclusion as part of the next tax cut. Moreover, in the latter half of the eighties, the high-spending members of the post-war baby boom will be graduating into the higher-saving ages.

The genuine efforts to cut back economic regulations that stifle competition and cut the costs of social regulations to protect health, safety, and environment will be paying off in the 1980's. Stronger competition and lower compliance costs will provide at least some modest help in the battle against inflation.

Finally, it is to be constantly kept in mind that as we face the problems of the 1980's, we still draw on the strongest economy and the highest standard of living in the world. And as everyone knows who has travelled overseas recently, we are also a country of bargains—our consumer goods, most of our real estate, and our business enterprises offer outstanding buying and investment opportunities to the rest of the world. This should bring in considerable foreign capital to the United States of the eighties and, in the process, strengthen the dollar.

With reasonably good policy and reasonably good luck, the Great Crash and the Great Depression, after having their brief spell in the fiftieth anniversary spotlight, will return to their accustomed position as dim memories of a buried past.

Senator BENTSEN. Thank you, Professor Heller.

It is obvious you gentlemen have given a lot of thought to this in preparation for your remarks, and the insights you have provided are helpful to us.

I would like to ask, Mr. Greenspan, first, you've talked about a breakdown in the Eurocurrency market. That was one of those things that you thought could lead—possible lead—to a major depression, if that happened. Could you explain to us, first, the financial system of Europe and, how that could trigger a depression in this country; and then what we should be trying to do to insulate ourselves from it.

Let me first say that we have so many members here I will set a time limit of approximately 5 minutes each so we can get through the group.

Mr. GREENSPAN. There are a number of ways in which a breakdown of the Eurocurrency system could create a series of events which could drive economic activity sharply lower in the United States. The first is the contingency of a breakdown which creates a major rise in Eurocurrency interest rates, specifically Eurodollar denominated rates. Since we are fully arbitrated in the United States, that would im-

mediately push interest rates in the United States up very sharply. In fact, some of the experience that we have seen in this country in the last month or two is a version of the transmission system in the Eurocurrency interest rate structure to the United States.

So, it is conceivable to me that if we get a tremendous rise in short-term interest rates, the peculiarly vulnerable financial structure of the United States to high short-term rates—that is, specifically, the thrift institutions—could undergo a major series of bankruptcies. For example, our huge saving and loan industry is characterized by assets essentially in the long market mortgages; whereas liabilities, even in recent years, are short term.

So, we see today and could see in a far greater way in a breakdown of the Eurocurrency system, technical bankruptcy and illiquidity in our vast thrift institution area, which in and of itself could be a major problem to this country.

There are a number of scenarios that I could paint, one more disastrous than the next, but there is almost no way that I could see that the United States can insulate itself should that system break down. And as you well know, Mr. Chairman, there has been very considerable thought on how can one get a handle on that Eurocurrency system in a manner to reduce the types of risks we are looking at. Very little progress has been made in that area, and while there is no question that the system itself is very substantially self-regulated, and has done remarkably well in the few episodes which threatened it, we do, as I indicated in my formal remarks, know so little about the theoretical structure governing it that we cannot be certain that some untoward event will not come up and basically upend the total system, with significant effects back here.

Senator BENTSEN. Professor Galbraith, let me give you an impossible one in the short time that you have here. What is your prognosis for the 1980's?

Mr. GALBRAITH. I wouldn't depart too far from Professor Heller. He has been extraordinarily good to me today. He has postponed his tax cut into the 1980's and brought my conviction that the wage-price spiral should be brought down somewhere to the present. This is extraordinary progress.

I am happy now to agree with him that if the system did not lend itself, if it were subject to the rigid rules that some people assume, if it weren't subject instead to an infinity of patching up, it obviously wouldn't have survived this long. And if we continue, including the measures that my two colleagues have mentioned and which I would urge—and something which has not been mentioned; if we get our oil imports under control, this underlies the concerns of both of my colleagues—then I am willing to accept Professor Heller's optimism, at least for the rest of the day.

Senator BENTSEN. Professor Galbraith, I was reading the point you made in your prepared statement, but did not speak to in your presentation, about the tax on gasoline and the other things that should possibly be done. Back at the time the embargo was started, I proposed a 35 cents tax per gallon on gasoline, and those funds would be used for alternative sources for energy. I got bales of mail about that one.

I remember going to one Senator and asking him to cosponsor it. And he said, "Not me, Lloyd. When I was governor of Rhode Island,

I passed a 1 cent tax, and they named the darned thing after me.”
[Laughter.]

So, politically, I am not sure it can be done.

Mr. GALBRAITH. Well, Mr. Chairman, could I say one word on that? I suggested a tax on gasoline, plus something along the lines of the food stamp plan, to ease the burden for household use, for business use, for farm use, and for those who use gasoline for farm and business purposes.

But I also add that it is the purpose, as I think my colleagues will agree, for economists coming before committees such as this, to say not the politically easy things, but rather to run interference for those who have the added problem of appealing to constituents.

Senator BENTSEN. Senator Roth.

Senator ROTH. Thank you, Mr. Chairman.

I gather from listening to the testimony of you three gentlemen you all agree that the chances of a major depression of the same type as in the twenties and thirties is not likely. And I would say that means we ought to have an opportunity to try to put into effect some of the long-range steps that are necessary to get the economy moving upward.

One thing I would point out to you gentlemen is, it seems to me, that one error we are making today that was made back in the days of President Hoover is that we are seeking to balance the budget through higher taxes.

Now, it may be true that the President isn't proposing such, but we don't have to because of two fundamental reasons.

One, because of inflation; and two, because we already have in place the higher social security taxes which will be quite substantial in 1981. Of course we will have higher taxes, I am persuaded, in the area of a windfall profits tax.

Now, you, Mr. Galbraith, if I understand you—and I respectfully disagree with you which comes as no shock to you—propose what we have been doing in the past; no tax cuts, but bigger spending as a means of working our way out.

It seems to me, in recent years at least, this has had a roller coaster effect. I am happy to see that Mr. Heller is now favoring a major tax cut.

And one of the things that concerns me is that Congress has by its budgetary process ruled out a tax cut for 1980. And if I understand your testimony, Mr. Heller, you think a tax cut ought to be prompt—1980—I didn't think it was the eighties. If I understood your testimony, you were talking about 1980.

Mr. HELLER. Well, Professor Galbraith was taking advantage of the fact that 1980 is the first year of the eighties.

Senator ROTH. So that is really only 2 months away. So what we are really talking about is a tax cut now. Would you agree with that, Mr. Heller?

Mr. HELLER. Within the next 6 to 8 months, I would say.

Senator ROTH. I wonder if Mr. Greenspan would wish to comment upon the need for a tax cut as a step, a long-range step.

Mr. GREENSPAN. Yes, Senator.

I always have been in favor of significant, either direct or quasi-indexing of the tax structure to eliminate the tax that occurs as a consequence of inflation.

I think you are quite correct in stating that unlike the late twenties when prices were scarcely moving and therefore tax burdens in both nominal and real terms were pretty much the same, that is clearly not the case today.

I believe at this stage that what we need more than anything is some mechanism to enhance capital investment and productivity growth. I think that the experience of the last decade has been one in which the average life of assets purchased by business has declined extraordinarily. All investments in the far distant future have been curtailed, whether it is basic research or facilities.

Unless and until we both get inflation down and reduce the burden of taxation on investment—in some instances they may be contradictory policies—we will not restore this economy to the type of stable growth and productivity increases that we saw in the 1950's and 1960's.

Senator ROTH. Mr. Galbraith.

Mr. GALBRAITH. Senator Roth, I must say I find myself uneasily in the position of being the most conservative man on this panel. [Laughter.] I do not for a moment believe that with inflation at the present level we can cut taxes, much as we would rejoice in doing so. And, indeed, I do believe that we should be shifting some of the restraint from interest rates and tight lending which are now our major reliance and which have a strong adverse effect on productivity, to taxation.

I believe that we should be shifting our system of restraint over to the tax system.

I do not, Senator, suggest increases in spending. This is automatically attributed to anyone of my political views. In this case I controlled myself. I did indeed urge some reductions, and I trust that you will go along with me in believing that there is a certain substantial indulgence in our present defense budget.

Senator ROTH. Mr. Heller.

Mr. HELLER. I don't think we should let go unchallenged the proposition that a tax cut is necessarily inflationary. Perhaps for somewhat different reasons than the Roth-Kemp reasons, I feel we could devise a tax cut that would be both in a sense an offset to the oil drag or the inflation tax drag, and make a contribution to the fight against inflation.

Take \$20 billion of payroll taxes that now go to finance the hospital insurance part of the Social Security system and which don't really belong there—illness and hospitalization aren't related to wages—shift those to general revenue financing. Cut that amount of tax, and you cut business costs directly.

I think you have to do it, by the way, in the form of a payroll tax cut, not in the form of a credit against the income tax to make it go directly into lower costs on those corporate books.

And, of course, this would also boost take-home pay without increasing wages and it would beef up somewhat, I think, the Government's appeal for moderation in wage increases.

Couple that with generous increases in depreciation allowances, and you have a program that combines cost reduction, support to the wage-price moderation program, and stimulus to incentives that would provide essentially an anti-inflationary tax cut, and that is what I would recommend for 1980 action.

Senator ROTH. Well, my time is up. I would just like to make, if I may, Mr. Chairman, one observation.

I think at least two of you are in agreement out of three—that is almost as good as we do on the Hill—that some action is necessary with respect to taxes.

Now, I would point out to you, Mr. Heller, that with respect to payroll taxes, I am pleased to say that the Finance Committee last week at my instigation has agreed to set aside some of the additional corporate taxes that would result from the decontrol of oil to use as a means of reviewing payroll taxes and hopefully freeze the rates which otherwise would be increased.

But if I understand this panel, two of you three members—and I am not arguing the exact make-up—but I think there is agreement that we should deal promptly with the supply side of the economy, and that we should do it by tax cuts that will affect our ability to produce. And I think that is a very important lesson for the Congress to learn.

Senator BENTSEN. Congressman Reuss.

Representative REUSS. Thank you, Mr. Chairman.

Mr. Heller, you I think quite rightly have warned against an international high interest rate war. I have been upset recently at the combined fiscal-monetary policy mix of some of our European friends.

For example, that miracle country of Western Europe, the German Federal Republic, has been pursuing a very stimulative fiscal policy. They are talking about tax reductions and, as you point out in your testimony, their deficit in terms of their GNP is three times ours. They also have been squeezing the marks until the pips squeaked. They have practically doubled interest rates in the last few months with a relatively flat money supply.

In your judgment, if our German friends feel that they must fight oil-led inflation by macroeconomic means, wouldn't it be better for the world if they shifted the mix toward a slightly tighter fiscal policy, thus permitting with the same anti-inflationary effect a slightly easier monetary policy, and thus ended a situation in which they raise their interest rates, we raise ours, Canada has to raise hers, they raise theirs some more, and we all head for the great abyss? Would you agree?

Mr. HELLER. I would. In other words, my prescription for that economy differ from the prescription for this economy because of the very sharp fiscal restraint we are exercising relative to the relatively loose fiscal policy there.

And that escalation in interest rates, and especially the German escalation, has been extremely damaging to the dollar. The dollar problem, in very considerable part, is a Deutsche mark problem.

And they, of course, are operating at what they think is a virtuous cycle of a stronger mark, and then lower import prices and a still stronger mark and so forth. But that is at the expense of the rest of the world.

And if we get into a competitive interest rate warfare and play that same game, the entire world will suffer.

And it is interesting, you know, we hear a great deal about the virtues of the German approach. But the result of that approach is that in the past 5 years, they have had slower growth rates and higher unemployment than the rest of OECD, and in fact their investment—and this is a cost we should always be very clear on when we use fiscal-

monetary pressure to beat back an economy and beat back recession—their investment has risen 12 percent in the past 6 years as against 100 percent in the previous 6 years. The costs have been very heavy.

Representative REUSS. Thank you.

Coming from Heller and Reuss, that can't be said to be anti-German [Laughter.]

Mr. Galbraith, Mr. Heller, in his extraordinarily interesting 1929 retrospective, points out that responding to specific tax proposals of President Hoover, the Congress in 1932 imposed taxes on electric energy, gas, oil, automobiles, luxury durable goods, furs, and jewelry.

Would you today favor a Hoover-Galbraith proposal along similar lines?

Mr. GALBRAITH. The Congressman from Wisconsin is adept at suggesting guilt by association. [Laughter.]

I certainly would. I have long felt that we should start moving the Federal tax structure to indirect taxes on upper-end goods. Such taxation has no anti-incentive effect. It is very difficult to resist on equity grounds. And it attacks a form of expenditure which has been, as we all know, increasing quite rapidly in recent times.

I might say one further word on that. This would cause me to urge more or less the same policy, the same mix of fiscal and monetary policy, that is being urged for the German Federal Republic.

But I believe my colleagues here would agree with me on this, that there is really a very great danger in too close comparisons between Germany or Austria or Switzerland and ourselves.

These countries bring in part of their labor supply from Yugoslavia, southern Europe, and Turkey, and send it back when it isn't needed. It is an extraordinarily good way of cutting down on your unemployment. You have it in another country where it isn't counted.

This is something that, with our statistics, we do not do. So a good deal of the success of those countries in minimizing unemployment has been achieved by shifting the unemployment to countries yet poorer than themselves.

I don't want to be considered anti-German either. And I am not saying this in any critical vein. But when making unemployment comparisons between ourselves and Western Europe, we should all recognize these different circumstances.

Representative REUSS. Yes, and my time is up.

Although in many a Yugoslavian or Turkish hearth tonight dwells a happier family for having had a guest worker making it good in Germany and bringing home the dinar and lire equivalent of marks.

Mr. GALBRAITH. I am not disagreeing with that at all. I do think there are some rather fanciful aspects to this situation. Marx, as we all know, said that capitalism could function only with an industrial reserve army of the unemployed on which it could draw as needed and which would stabilize wage costs.

I would hope, Mr. Chairman, you might ask him back to explain this rather fascinating development of postwar years: the industrial reserve army of the unemployed for capitalist West Germany is now in Communist Yugoslavia. [Laughter.]

Representative REUSS. Thank you.

Senator BENTSEN. Congressman Hamilton.

Representative HAMILTON. Thank you very much, Mr. Chairman. Two questions.

First of all, I would like each of you to express your views on the value added tax. As you know, the chairman of the Ways and Means Committee has indicated his support of it. I think that the chairman of the Senate Finance Committee has done so, as well. I would just like to get a quick response from each of you.

The second question, not really related to the first, is this: Do you think that the economy, the political economic structure of the United States, has an inherent inflationary bias so deep that we should reasonably expect 7, 8, 9, or 10 percent inflation throughout the eighties?

Mr. GALBRAITH. I have really given my answer to the first. I would not be averse to selective value added taxes on upper-end items. I would hate to see them as a way of reducing marginal rates in the upper income tax brackets, or the corporate income tax. They should not be justified by any talk of more incentives for the already affluent.

Any notion that corporate executives are now bugging off because they are not getting enough money should be regarded with suspicion. It seems to me rather insulting.

On the question of whether we should reconcile ourselves to a high rate of inflation, my answer would be no. The economists and economic policymakers in Washington are not meant to come here and have an easy life. They should be held to the goal of stable prices and full employment, and held to be inadequate if they don't succeed.

Representative HAMILTON. Mr. Greenspan.

Mr. GREENSPAN. On the issue of VAT, there are unquestionably a number of quite attractive aspects on that tax policy, which, of course, is the reason why we have this extraordinary phenomenon of the chairmen of the two major finance committees of Congress advocating it.

I do agree with the general proposition about shifting the tax structure toward capital investment incentives and away from consumption incentives. I have some problem, however, with the structure of that for two reasons.

One, because of its nature, VAT is quite capable of being increased at a very substantial rate, and huge revenues can be raised, in a certain sense, painlessly. I think that that causes me some considerable concern.

Most of what one would want to achieve with respect from a VAT tax structure is probably achievable, at least arithmetically, with the existing structure of taxes. It may not be achievable politically in the sense that what has to be done to achieve the same investment incentives would not be realized that easily.

It is true, as I am sure Professor Heller will remind us, that because VAT immediately finds its way into the Consumer Price Index, and because there is a cumulative and domino-type effect to prices, it is likely to be inflationary.

I am a little suspicious of that argument. I am not sure whether or not it has that cumulative effect. That it has the initial effect I think is undeniable, but I am not sure that it has a long-term effect.

The bottom line is that I think it is important that we study this tax but be very careful before implementing it in this country. The fact that it has worked reasonably well elsewhere is not necessarily a reason why it would work here. In this respect I would subscribe very much to what Professor Galbraith said with respect to trying to assume

that the economic structure of European countries and the United States are quite similar; they are not.

With respect to your second question, I do not believe that there is any underlying inflationary bias in this country. I know of no reason why we cannot with appropriate policies defuse the underlying inflationary thrust.

There is no mystical structure that says we must have 8 percent or 9 percent or 12 percent. We can and should get the inflation rate back down to where it was in the early 1960's during the regime of the colleague on my left.

Mr. HELLER. I am always happy to have an audience reminded that our average rate of inflation was 1.2 percent per year—not per month—in the first half of the sixties. That record seems to offer a bit of a rebuttal to the unkindest cut of all, that I got from the Wall Street Journal 10 years ago, when I said, as I quoted in my prepared statement, that inflation had sunk its roots deep. And the Wall Street Journal added: "Yes, and he should know, since he had a hand in the gardening."

It is great to utter brave words about the 1980's as Alan Greenspan has just done. But it is excruciatingly difficult, costly, and expensive, especially to those who are at the bottom of the job ladder, to try to squeeze out inflation by what we euphemistically call fiscal and monetary discipline.

You have heard this statistic time and again: When you squeeze down the economy by fiscal and monetary restriction, about nine-tenths of the restriction translates into lower jobs and output and only about one-tenth into lower inflation. One simply must couple a restrained fiscal-monetary policy with an effective incomes policy, some kind of wage-price restraint, to lower that orbit that is so deeply embedded in the economy. With overall hourly compensation increases averaging 9½ percent a year, and productivity advances averaging only 1½ percent or so per year, you have a built-in or Shedrock 8-percent rate of inflation. It is going to be mighty hard to work that out of the economy.

Now what about VAT? VAT in the form proposed would bring about overnight a 6-percent jump in the Consumer Price Index. That is a greater jump in the Consumer Price Index than all of the OPEC price increases have generated. And I don't see, in a period when we are trying to get this inflation rate down, that that makes a great deal of sense, even if Mrs. Thatcher is trying it.

Second, as far as the savings aspect of that is concerned, I think that the increase in savings by shifting from other taxes to a value added tax are greatly over-estimated. If you want governments to generate savings, have them run surpluses.

And as far as stimulus to investment is concerned, the VAT is kind of an unguided missile. I would much prefer the more guided missile of the direct incentives like our supply-side economics of the early 1960's when we introduced the investment tax credit and liberalized depreciation.

Mr. GALBRAITH. What about a more selective VAT, Walter, which is what I would urge?

Mr. HELLER. Well, that is kind of a mess, Ken. It is perhaps an elegant mess, but it is a mess to try to single out a few products. We dropped those excise taxes at long last in 1965, almost all of them,

because of the distortions that they caused in consumer patterns. I am emotionally attracted to it, but maybe I am too much of a public finance functionary to go with you in practical terms.

Representative HAMILTON. Thank you very much, Mr. Chairman.

Representative REUSS [presiding]. Senator McGovern, who hasn't had a chance to be heard.

Senator MCGOVERN. Thank you, Congressman. I have a two-part question: We're hearing more and more often that the major source of inflation is coming from the supply side, plus a lot of new talk about productivity. I am wondering, first of all, if each of you agree with that analysis; and second, if you do, what the impact of our very high interest rates and tight money policy will have on improving productivity, or supporting the supply side of the equation?

Professor Galbraith, perhaps we could begin with you.

Mr. GALBRAITH. I am uneasy about a comparison between the inflationary sources of inflation on the supply side of the economy as opposed to those on the demand side. Other than in the case of productivity gains, increases in supply also play out the income which adds to the demand. Those two go together.

Also, any changes in productivity or other changes on the supply side are long-run changes. They will not cure inflation in your lifetime or mine. The remedies on the demand side—remedies to control demand or arrest the wage-price spiral—are immediate in their effect. Action on the supply side is not a substitute for action on the demand side or vice versa.

Perhaps before you came in, Senator, I adverted to my concern about excessive reliance on monetary policy that increases interest rates and cuts back on borrowing and business investment. To be sure, it has its effect on consumer purchases, including the housing market. I thought Alan Greenspan brilliantly outlined that danger. But it has its largest effect on those industries which invest out of borrowed money, and that means, of course, a direct effect on investment and on productivity.

One of the consequences of heavy reliance in these last years on monetary policy in our case and in the British case has been the resulting adverse effect on investment and on productivity.

Senator MCGOVERN. Mr. Greenspan?

Mr. GREENSPAN. Senator, nobody likes high interest rates. They have no beneficial effects directly that I am aware of. They are symptoms of another problem, and the problem is inflation. We have no choice at this particular stage, having allowed our policy to deteriorate to the point where inflation has gripped the national psyche, to place interest rates where they are, because unless we have rates where they are in today's environment, we would have a highly unstable system.

The argument should be, as I see it, how do we get them down? Clearly, the lower interest rates we have, the greater the incentives to invest, the greater the productivity engendered, and the like. So it strikes me that what we have to do is to reduce the rate of inflation and therefore interest rates.

But it so happens that when we are in the type of dilemma in which we now find ourselves, we have to keep interest rates high in order to avoid an excessive acceleration in money supply and credit generally. That would only exacerbate the inflation, which would in turn

make productivity worse, investment worse, and keep us in an inflation spiral which we would not be able to get out of.

So it strikes me that the arguments of getting productivity up to cure inflation are certainly correct, but in order to do that we have, as Professor Galbraith has said, also have to look at the demand side, because it is the demand side, specifically credit expansion, which is excessive at this stage, which is creating the inflationary bias. We have to have a policy which addresses itself to the total economy, of which a very important part is the supply side. But one cannot look at the economic structure solely in those terms.

We have been guilty in the past of looking at our economy only from the demand side, and that has clearly been wrong. While I'm a very strong advocate of so-called supply side economics, I do have certain twinges periodically that people are going to forget that there is a total economy out there and one can very easily disregard the demand aspects as well.

Senator McGOVERN. Mr. Heller.

Mr. HELLER. Senator, first of all, let me respond to the comment that Alan Greenspan just made, that we have been guilty of ignoring the supply side. No such thing. As we alluded to earlier, when you go back to the early Kennedy days, the very first thing, to considerable criticism up here on the Hill, that President Kennedy did was to ask in 1961 for that installation of the investment credit, the liberalization of depreciation guidelines, programs for the training and retraining of workers. In early 1962, we had the introduction of the wage-price guideposts.

All of those were on the supply and cost side. So we really had a two-track policy. But only the one track, the demand expansion, which was desperately needed, has gotten the attention.

Needless to say, we need to put more emphasis on the supply side. The productivity thing is extremely puzzling. And if Ed Dennison at the Commerce Department says he can't explain it with any certainty, I must say that I can't, either. I do feel there are some factors, however, that, as I pointed out in my prepared statement, will tend to almost automatically increase productivity in the 1980's. Our demographics shift to the more seasoned, higher productivity workers. I expect a greater stimulus to investment. But, a lot of intangibles are all so important, research and technology and so forth.

So I think that we will make a considerable comeback on that front in the 1980's. But as Professor Galbraith says, it is a long slow process.

On interest rates, just one word. Quite apart from the inflation problem, interest rates in the United States today are in thrall to the defense of the dollar, and the Europeans are watching like hawks to make sure that we act like hawks. The slightest indication that we are slackening in our efforts, I think, would lead to greater pressure from diversification out of dollar assets overseas. And given that, it seems to me we should be putting a lot more effort—even though we have tried, we should try again to develop some kind of a disarmament pact or nonaggression pact on interest rates.

Volcker has enormous prestige around the world. He ought to be using that prestige to try to prevent the escalation of these interest rate increases into interest rate warfare, because that just hurts us all.

Senator McGOVERN. Thank you.

Representative REUSS. Senator Jepsen.

Senator JEPSEN. Thank you, Congressman Reuss.

I would like to ask a question. Mr. Galbraith, what exactly caused the end of the Depression, the last one we had?

Mr. GALBRAITH. The Depression lasted through all of the 1930's, Senator. In 1937 there was a good deal of optimism that it was coming to an end. There was then misplaced fear of inflation, and the budget was tightened up while interest rates were raised. There was thereafter another bad slide in 1938 and 1939. One would have to say the Depression was washed away only by the great wartime expenditures of World War II. Those brought it to an end.

There was here, a curious fact of our economic attitudes. Through the 1930's, expenditures on behalf of the unemployed, the farmers, and others suffering deprivation, were considered unsound and dangerous. Once these were replaced by war expenditures, everything became good and sound again. That shows how flexible the economic mind can be.

Senator JEPSEN. Mr. Greenspan.

Mr. GREENSPAN. Without subscribing to much of what Professor Galbraith said peripherally, it was World War II, unquestionably, which ended the Great Depression. It had not ended prior to that.

Mr. HELLER. Agreed.

Senator JEPSON. Mr. Galbraith, I have been trying to follow and listen very closely. I read a lot of what you have said and written in the past, and have a great deal of admiration and respect for you, but I have a hard time agreeing with much of it. Do I understand, do you believe, that an increase in taxes would reduce inflation?

Mr. GALBRAITH. Yes. I would even go so far, Senator, in the presence of a distinguished farm State leader to argue that this is particularly important for agriculture. Agriculture has softer prices than we find in the industrial section. These are more vulnerable to tight money policy than industrial prices. I would shift from the heavy reliance at present on high interest rates for restraining demand and restraining inflation to a restraint on upper income expenditure. That means taxation.

Senator JEPSEN. Well, if this is so, if taxes or an increase in taxes reduces inflation, then why haven't the massive tax increase that we have had because of inflation, by shoving everybody up into a higher tax bracket, acted in an anti-inflationary manner?

Mr. GALBRAITH. I think it has to some extent. I think it has been operating, as Professor Heller was one of the first to point out, as one of the restraining influences built into our present tax structure. It has been offset, however, by the very great decline in savings by people who, foreseeing the diminishing value of the dollar, hasten to spend their money rather than to save it.

This, I might say parenthetically, is one difficulty I have with Professor Heller's calculations as to what the deflationary effect of the increased unspent oil revenues is. That unspent revenue needs to be set off against the effect of diminished domestic savings.

Senator JEPSEN. Thank you. My time is up.

Representative REUSS. Congressman Brown.

Representative BROWN. Thank you, Congressman Reuss.

Mr. Heller, you mentioned perverse government tax increases of the thirties in your prepared statement. You talked about the increase in personal tax rates, the moving of people into a higher tax bracket,

the boost of taxes on corporations. What about today? We have an automatic tax increase of \$20 billion a year coming up this year as a result of inflation, as all of us are forced into higher brackets. The standard deduction, because of inflation, and the exemptions we have are all eroded, just as the Congress did back in the thirties. Middle-income families are driven into unproductive tax shelters by the inflation, and we have a \$100 billion de facto tax which is the cost of complying with Federal regulations. When we all have to pay a higher utility bill because of a stack scrubber ordered by the Government, that is pretty close to a tax, it seems to me. We also face social security tax increases, and taxation of phantom profits due to depreciation allowances which do not really reflect the costs after inflation of new things that have to be bought for a factory.

Aren't we really in a way doing the same things that you were critical of the Congress doing at the time of the Depression, and therefore aren't we really adding to our problem? And then on top of that, throw on the value added tax, which it seems to me is a very regressive tax. Isn't that adding to our problem rather than resolving it at this point?

Mr. HELLER. Well, Congressman Brown, I find a great deal of what you say very much in line with what I was trying to point out in talking about the enormous fiscal restraint that is now being exercised through the Federal budget. Part of it, as I say, is taxes. Part of it is some actual restraint on the spending side. Part of it is that increase in social security taxes.

By the way, I get about \$10 to \$12 billion as the annual inflation tax resulting from the pumping of income into higher brackets as a result of inflation.

Representative BROWN. There is also a corporate increase because of the depreciation situation, because of your tax for profits that haven't been really made.

Mr. HELLER. I see. That is in your numbers and not mine. And the cumulative impact of that, as I point out, for the 3 years, even in my more modest calculations, is in the order of \$60 to \$70 billion. And OPEC is levying another tax of \$60 to \$70 billion on us net, I mean net after their additional imports from us and net after additional investments that result from OPEC and decontrol.

And all of that is an enormous anti-inflationary, if you wish, or antiexpansionary and probably pro-unemployment, pro-recession burden inflicted on the economy.

Representative BROWN. Let me put it another way. It's the same dumb mistake that you are pointing out was made back in the beginning of the Depression. It is just being made in a different way. We aren't doing it by having the Congress voting it. We are doing it because we are not doing anything to stop it. It is because of the inflation we have created.

Mr. HELLER. That is an interesting parallel. In other words, we're not doing it because of a mistake in economic judgment, where balanced budgets are thought to be the cure for all economic evils, but we are doing it sort of stealthily and inadvertently. I think there is a great deal to what you are saying.

Representative BROWN. Mr. Greenspan, the crash of the dollar could come, could it not, from the debt holders of the world deciding that the dollar is not worth having as an asset, so they sell it for

gold or deutsche marks, and instead of causing a depression we would have wild inflation a la 1920's Germany? Is that not also a possibility in the scenario you mentioned? You did not throw that in, I think.

Mr. GREENSPAN. Well, there is no question that there is a huge block of dollars held outside the United States as a store of value. Any attempt to unload those dollars can only create a fall in the relative dollar price, obviously, unless you also eliminate the assets, that is, the loans denominated in dollars which match those liabilities. It's very much like selling corporate stock. You keep selling it. The number of shares remains the same. It's just the price falls, until you finally get willing holders at the lower price.

There is no question that, should that occur for the dollar, that inflation rates in the United States relative to those of our trading partners would rapidly escalate. But because we have a still relatively small level of imports in this country it is very difficult to envisage that massive inflation could take hold unless there was an extraordinary move on the part of holders of dollars abroad to use those dollars to buy up goods and services, investment land, et cetera, in the United States.

Representative BROWN. Back here.

Mr. GREENSPAN. Yes; that is a possibility. But I would not discuss it in the same context as the Weimar Republic. It is a rather structurally different phenomenon and there is really nothing in common. You can create a Weimar Republic in the United States, but that would not occur from the international side.

Representative BROWN. Let me ask, who are those who have loaned to the LDC's, where you suggest the trouble could come from in the case of the LDC's not being able to meet their obligations? Are they private investors, New York bankers, national governments?

Mr. GREENSPAN. They are largely Eurocurrency bankers, a very substantial proportion of which, of course, are branches of American banks. We and our branches dominate that market. So in that sense—

Representative BROWN. To what extent?

Senator BENTSEN [presiding]. I wonder if I could interrupt here. If we could let Senator Sarbanes make a comment—because we have a series of votes going in the Senate—and then we can get back to you.

Senator SARBANES. Thank you, Mr. Chairman. I regret that this series of votes is going to force me to join you in leaving the hearing. I hope to be able to ask some questions. I simply want to say, Mr. Chairman, first of all, I think this is a very important set of hearings and I'm very pleased to have this panel before us. I have learned a lot of my economics, indirectly, from Mr. Galbraith and Mr. Greenspan, and quite a bit of it directly from Walter Heller. I was privileged to work for him when he was Chairman of the Council of Economic Advisers.

I simply, for his defense, want to say this: Any economic points that I may make which the rest of you think have some validity should be attributed to Walter's teachings. Any that you find without validity are solely my fault.

Senator BENTSEN. If you gentlemen would forgive those Members of the Senate who have to make those votes. Please proceed.

Representative REUSS [presiding]. Congressman Rousselot.

Representative ROUSSELOT. Thank you, gentlemen, for being here.

I don't know if I have been as well educated as Senator Sarbanes, but I am trying hard to achieve that. Mr. Heller, you mentioned that tax cuts are not inflationary. Are they definitely anti-inflationary, then?

Mr. HELLER. Well, no economist makes that unqualified a statement, that tax cuts are not inflationary. What I said was under these circumstances, with so much of a fiscal draft on the economy, and with a properly structured tax cut that would cut costs and stimulate incentives, it would not be inflationary.

There are lots of situations in which, of course, tax cuts would be inflationary. If the economy was operating close to its potential and if you put it in a form that did not cut costs or in any way help you on the supply side, so to speak, of course they would be inflationary. I don't think that is the situation with, say, roughly a \$30 billion tax cut, which is the type I am suggesting.

Representative ROUSSELOT. And that would not be inflationary?

Mr. HELLER. \$30 billion in the form of payroll tax cuts and accelerated depreciation, and I would also go for some real wage insurance, although I'm afraid its constituency is mainly professors and not Congressmen.

I think you could devise a program that would have a definite anti-inflationary impact from the supply side and not generate inflation from the demand side, because of this tremendous \$125 billion draft of demand that we're getting both from the tax side and from the OPEC oil price boost.

Mr. GALBRAITH. But Walter, why hasn't that affected prices?

Representative ROUSSELOT. I want to say that sounds awfully interesting, and I was going to ask Mr. Galbraith if he wanted to get into it.

Mr. GALBRAITH. I was going to ask Walter, why hasn't that been affecting prices? You have one of the greatest deflationary forces in history, with a 13 percent inflation rate. My God, how do you manage this?

Earlier in your comments, I thought you quite wonderfully postponed your perennial tax cut until next year. Now we have tax cuts back again. Under the charming influence of Congressman Brown of Ohio we have gone back to tax cutting in the middle of inflation. I feel very depressed.

Mr. HELLER. That is what will happen to the economy if we don't have some tax cuts.

Mr. GALBRAITH. Wouldn't you wait until the inflation shows some sign of tapering off?

Mr. HELLER. Look, we have had—I'm talking about a \$125 billion impact starting from last December. That impact hasn't had a chance really, essentially, to work, what with the lags between action and reaction in the economy. In other words, the pressure on the economy started in the first half of this year. You don't expect any immediate decline of inflation. And especially when that inflation comes primarily from a 60 percent jump in oil prices, from a jump in food prices, and a jump in housing prices, all of which are not very amenable to demand pressure.

That is part of the problem of our inflation today, and prescribing a draconian or sort of an agony route of decreasing demand as your main weapon to fight an inflation that comes from external shocks,

from exogenous factors, is just not a well-rounded anti-inflation program.

Mr. GALBRAITH. Well, I must say that there couldn't be a sharper disagreement than this. I regard inflation as having two sources, as does Walter Heller. One in the cost-push, wage-price spiral, one in the pull of demand. And if one reduces taxes at this time with the record peacetime inflation, I think one adds to that pull of demand.

The OPEC situation has also transformed itself in these last weeks from one where the cartel is responsible for the price increase to one where the cartel has not been able to restrain the price increase in face of the very large demand for oil, much of which comes from this country.

Similarly, the housing to which Alan Greenspan adverted, I would think it an act of extreme unwisdom at the present time to cut taxes—

Mr. HELLER. At the risk of taking—

Representative ROUSSELOT. No; it is only my time, and I'm delighted, Mr. Heller, to find you on the same side, which is interesting.

Mr. HELLER. May I just say that that is an amazing role reversal for John Kenneth Galbraith. Where is your concern about those who are going to be unemployed and those whose jobs are going to be canceled out? All I'm talking about is in the face of about \$120 billion of fiscal and oil drag removing about \$30 billion of that in a way that would be anti-inflationary and that would tend to restrict or at least moderate somewhat the depth and duration of a recession.

Mr. GALBRAITH. Well, we have not had that recession yet. We know our predictions are uncertain. So, in the strongest possible terms, I would urge that we wait until there is some indication of the moderation of inflation. At that time then happily Walter Heller and I will be on the same side again—although I would use the opportunity less for tax reduction than for addressing urgent social and urban needs.

I am not indifferent to the problem of unemployment. One of the reasons that I have argued against this excessive reliance on monetary policy is that to the extent that it works, it works erratically against output and employment.

Representative BROWN. Mr. Galbraith, could I suggest, since we are now apparently free-form—

Representative REUSS. Did the gentleman from California yield?

Representative ROUSSELOT. No; but I would be glad to. I have been yielding anyway.

Representative BROWN. Mr. Heller suggests that we cut taxes so that people could pay their oil bills. You have overlooked, I think, what has happened and that is something that I learned in economics—but then, I did not have the advantage of a Harvard graduate education—and that is that we have produced money to try to resolve our problems. We have had expansion of the money supply rather radically to meet the oil bills. And that that has produced, in part at least, a good deal of this dollar overhang that has created the problem that Mr. Greenspan seems to be worried about. But don't you think that has been a little inflationary, that too few goods and too much money caused inflation?

Mr. GALBRAITH. I would certainly urge what I said earlier, a broad spectrum attack on this. I would not take the brakes off bank lending, by any means, but I am very uneasy about the extent of the reliance on it at the present time. And I'm only urging that we

use, in a firm but much broader scale, all of the weapons that we have against inflation—one of which is fiscal policy; another, of course, is to take tighter control of the wage-price spiral.

Representative REUSS. The gentleman's time has expired and we will all have another go-around.

I am distressed to see our distinguished panel disagreeing so vigorously. Let me see whether there isn't really a program that Galbraith, Greenspan, and Heller could agree on—not as the best but as something which is possible. Bear in mind it is coming on November 1. We have got an election next year, and so for practical purposes if you're talking about laws you should be talking about what happens before July 1, 1980.

Now, what we ought to be trying to do, it seems to me, is to evolve programs that will at one and the same time fight inflation, recession, and the energy problem. You would all agree with that, wouldn't you?

Well, why not take one part Galbraith, which is a revenue-raising excise tax measure on electric energy, gas, luxury durable goods, furs and jewelry to raise x amount, with a little humane feature in it, which he has mentioned, to ease the burden on those who really need gas and electric power—you wouldn't need such a thing on furs and jewelry.

All right, one part Galbraith. One part Heller: Your extremely sensible, inflation- and recession-fighting payroll tax reduction. Balancing those two out so that there is no net budgetary impact, no increase in the deficit, and thus get the vote of Alan Greenspan and other intellectually rigorous Republicans.

And why isn't that a perfectly good program for the next 8 months? Heller doesn't get his depreciation but that can wait. Instead you're going to get lower interest rates. Undoubtedly some fiscal austerity would permit Volcker and company to create greater monetary ease with the same anti-inflationary effect.

Galbraith doesn't get his net reduction of the deficit but he can survive, and Greenspan gets what he wants in housing and capital investment. Let's hear you from one end to the other on that. Mr. Galbraith?

Mr. GALBRAITH. Well, I am in a mood to make any compromise that moves Mr. Heller in any distance whatever away from his tax cuts, he knows that.

Representative REUSS. Well, as a compromise there would be no net tax cut.

Mr. GALBRAITH. There should be no mistake that I expect to take my instructions from Heller—at least 90 percent of the time. The only thing I would add is something on which Mr. Heller and I are agreed. There needs also to be, whatever the pain, firm control of cost-push inflation and the wage-price spiral.

Mr. GREENSPAN. Congressman Reuss, I must say that I am slightly distressed at your Solomonesque attempt to redress this. I was enjoying having my two colleagues fight more than you could conceivably imagine, and I am sorry that you thought of a mechanism by which you could shut it off. It is an interesting proposal.

My main concern with it, strangely, is it is de minimus in the sense that its likely impact is probably small. It may not be worthwhile enacting, because it will give the impression to the American people that we are introducing a program which would have significant

effects upon both interest rates and inflation. I would doubt whether that would occur short of some very major augmentations in the type of program you are talking about.

Representative REUSS. We will let you put your truth in lending notice on this package, that it won't solve everything. But we are talking about something for the next 6 or 8 months.

Mr. GREENSPAN. I have no objection to that particular package. I just would not struggle very hard to advocate it because I am not sure that its impact would be enough to create an attitude on the part of the American people that something was being done. I have been quite concerned over the years that we're promising too much in the way of successful economic policy, and have failed time and time again.

To borrow a phrase from an ex-member of the current administration and mutilate it slightly—if the system ain't broke, let's not fix it.

Representative REUSS. I will return a minute, but Mr. Heller, how about you?

Mr. HELLER. Well, here in Washington, which is the citadel of second best [laughter]—

Representative REUSS. Why not the second best?

Mr. HELLER. I guess I would go along with it, particularly if a large part of your excise tax program was a hefty gasoline tax. Like Senator Bentsen, 6 years ago, I was plugging for what seemed like a horrendous tax, 30-cent boost in the gasoline tax. And if we had a good re-route mechanism for those funds—and remember, every penny of gasoline tax, as I'm sure you know, is a billion dollars of tax collection—if that were the core of your excise tax program, I could go along with it, with some enthusiasm.

Representative REUSS. It is meant to be, obviously. That is where you need to discourage consumption, and that should be the central item in the excise tax package.

Congressman Brown.

Representative BROWN. Well, Congressman Reuss, as long as we are proposing solutions, I would like to be somewhat less heretical and suggest that we might get all of these gentlemen marching in the same direction if we would use the recommendations of the Joint Economic Committee, which sets both the tools, that is, both monetary and fiscal tools, the monetary being restraining money supply at its current levels.

Mr. GREENSPAN. I want it to be said for the record that neither one of us got his proxy. [Laughter.]

Representative BROWN. I would like to suggest the Joint Economic Committee approach of last March and August, and that is using both tools, monetary, and fiscal tools—monetary tools being set on "Steady as you go, don't loosen up sharply on the money supply." I'm not sure we would have recommended then that you tighten up as tightly as Mr. Volcker did, but on the other hand he had to do it because the Federal Reserve did not follow our advice in March, and did loosen up rather sharply in June, to balance out the oil price increase.

So I would suggest now that those two things have been balanced to some extent, and that we use that recommendation for maintaining the slower monetary supply growth where it is, and then give the supply side incentives through the fiscal approach, which I understand, Mr. Heller, is about where you come out.

Now, I'm sorry that Mr. Galbraith had to leave because I was going to agree with him on two points. One is that he suggested that the supply side approach is a long run approach. And I think he is quite correct on that. And God knows we have needed it for a long time. We have not had that long run approach for a long time.

If we had grown at a somewhat higher rate of expansion in this country over the last few years—at just over 5 percent a year, rather than the rate at which we did grow, somewhere between 3.7 and 4 percent since about 1950—we could have had an economy that is 50 percent larger than our economy is now—had we been able to sustain that rate of growth during that period of time. And we could have had all of the wonderful social programs that all of us would like to get the credit for voting for, especially in an election year, I must say. Congressman Reuss, we could have had health care and defense increases and tax cuts and all of those good things.

But we didn't do that. We haven't had a supply side incentive. What we have had gripping this economy is the impact of that recession or depression that we are celebrating today. And we have had systems of taxation that have been addressing depression rather than inflation. It seems we've got it all backward because we have not been willing to adjust.

I would agree with Mr. Galbraith on another point and that is he is possibly the most conservative member of the three panelists; that is, conservative in an old fashioned way, because his answers seem to be the same for today's problems, when inflation is the enemy, as they were back in the 1930's when depression was the problem.

We suggested, as I understand from looking at his testimony, easier money, a balanced budget—that is a little new, but he balances it through high taxes and no reduction in spending, there's nothing new about that—higher spending on social programs and wage and price controls.

And again, I think those are the same things, except the balanced budget, which have contributed to the opposite problems which we face today, and that is the rather devastating problem of inflation which, unless we get it under control, is sure to lead to depression.

Now, I did not mean to say that as a peroration; I meant to ask it as a question of Mr. Galbraith. But unfortunately I did not have that opportunity.

If either one of you would care to comment on it, you are welcome, although I trust you will be sensitive to his absence in doing so.

Mr. GREENSPAN. I would just like to say one thing which I think he did say, that should be stated for the record. He has stipulated that he does not believe we are in a recession at this particular time, and that in that respect he believes that the policies that he is constructing, as I understood him, are addressed to a problem somewhat different from that which you addressed yourself to, Congressman.

Having said that, I would be the last person to speak for Ken Galbraith, especially when he is not here. I would leave that to my colleague.

Mr. HELLER. And I respectfully decline, also.

Representative BROWN. Well, recession or not, it seems to me that we are in a depressed time for business modernization and expansion in this country.

If one takes the signs of the stock market, of productivity or any of the other measures of our growth by comparison to growth with the other major industrial nations of the world, or even the improvement of real income for our citizens, we have citizenry which, while their income has doubled, is generally—and it's unfortunate we have to work with averages—but generally worse off or at least no better off than they were 10 years ago.

And if that isn't one measure of recession, I don't know what is.

Mr. HELLER. Just a comment on that. Actually, real income, family real buying power, has increased substantially in the past 10 years, even in the face of inflation.

Representative BROWN. What was that?

Mr. HELLER. Family real income, family real buying power, has increased substantially in the past 10 years.

Representative BROWN. After taxes?

Mr. HELLER. After taxes, yes, sir.

Representative BROWN. And without the additional worker in the family?

Mr. HELLER. On no, that is a good part of it, that more people have gone to work. But the point is that the standards of living have continued to rise.

Representative BROWN. But the additional worker hasn't increased productivity and so, in effect, what you've got is more effort and literally therefore, less per-effort result in terms of the good things of life.

I mean, that is like saying that if everybody went back to the 60-hour week we would all be better off. Of course. But one of the things that has improved our standard of living is the ability not to have had to work 60 hours, but to have had that workweek reduced.

Mr. HELLER. The last thing I would want to appear as is an advocate of the 60-hour week. I think most of the people who have gone into the labor market, especially the women who have gone into the labor market, have gone because they want to work.

Representative BROWN. I think they have gone out of necessity.

Mr. HELLER. Well, I don't leave out that factor, but certainly the sociological changes that have led to this are as important as the economic ones.

Representative REUSS. Mr. Rousselot.

Representative ROUSSELOT. Well, another factor, Mr. Heller, is really—isn't it that the family income has gone up because more people in the family are working?

Mr. HELLER. That is what we were saying.

Representative ROUSSELOT. Well, Mr. Greenspan, you have talked in the past about some kind of indexing. Should we make it harder to raise tax rates?

Mr. GREENSPAN. Yes; I certainly believe that. I think it should be exceptionally difficult to raise taxes. I also think it should be exceptionally difficult to raise expenditures.

Representative ROUSSELOT. That would be fine with us.

Mr. GREENSPAN. I have in fact been advocating that rather than have a constitutional amendment to balance the budget directly, that we should focus our views with respect to the Constitution on the question of whether we should have simple majorities for money bills, that is, appropriations expenditures, guarantee bills, and the like.

Representative ROUSSELOT. More than a 50 percent vote?

Mr. GREENSPAN. Yes; to the extent that we have in our institutions a drift toward both higher taxes and higher outlays, we should endeavor to require a larger than plain majority consensus. As far as policy is concerned, I think that would be a major improvement.

Representative ROUSSELOT. Mr. Heller, do you want to comment on that?

Mr. HELLER. No.

Representative ROUSSELOT. Well, I am sorry Mr. Galbraith left. I was enjoying the conversation which was going on and I wish we could have stimulated it a little more. I am sorry that the third member had to depart, because it was getting healthy, I thought, Congressman Reuss.

Mr. HELLER. We were just carrying out the dictum that agreement is dull and controversy is spicy, and this was for your benefit.

Representative REUSS. Well, I think we all have given of our best. And the panel was rightfully relaxed, and we are very grateful to you for a remarkable afternoon. Thank you very much. We will see you on the 100th anniversary of the Great Crash. [Laughter.]

The committee stands adjourned.

[Whereupon, at 4:25 p.m., the committee adjourned, subject to the call of the Chair.]

