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PANEL DISCUSSION

SAVINGS AND THE ECONOMY

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THE ROLE OF SAVING IN THE ECONOMY

ROGER F. MURRAY:

Perhaps we can all agree that the basic economic objective of the American capitalistic system in the twentieth century is to provide a high and rising standard of living for us and our fellow citizens. This can be measured in per capita real income, the average command over goods and services of the individual's choosing. We might wish to add more details to this definition of our basic economic objective, but they would only be elaborations of this central theme.

It is evident that for per capita real income to rise, output must rise more rapidly than the input of man-hours of productive effort. Structures, machinery, soil improvement, transportation facilities, and energy are a few of the means of increasing the productivity of our natural and human resources. If the stock of reproducible tangible assets is increased —the process of capital formation—we can expect increased output per man-hour in the future. We are on the way to our goal of a rising standard of living without requiring a longer workweek, child labor, or other sacrifices of leisure time.

Saving, for the economy as a whole then, is the net addition to the capital stock after allowance for its consumption and obsolescence. By definition, it is also investment in the facilities which will permit a larger volume of goods and services to be produced for the satisfaction of future human wants. In an urban industrial society, most people are employed by others and work with someone else's equipment in buildings they do not own. Financial instruments like claims and equities are used, therefore, to measure the amount of private capital and to identify the creditors and the owners.

Hence we are usually discussing saving in financial rather than real terms, especially when we turn to saving through financial institutions like banks, life insurance companies, and savings and loan associations. The saving process, whether or not carried on through these financial intermediaries, involves decisions as to which demands will be granted for capital formation. Whether our economy grows at a good rate, therefore, depends in part upon the efficiency with which savings are allocated among the most productive projects.

Whether the demand for productive increases in the capital stock will be adequate, inadequate, or excessive, relative to the willingness and ability of people to save, is a question to be faced in the papers to follow. The most systematic analysis of this topic in long perspective was made by Professor Simon Kuznets in his book *Capital in the American Economy: Its Formation and Financing*,[1] which reflects the results of his study at the National Bureau of Economic Research under a grant from the Life Insurance Association of America. In his own words, the conclusion for the analysis of the long period from 1869 through 1955 was that "the limitation on savings available for financing capital formation held down capital formation levels" (p. 399). That is to say, savings and not the demand for capital investment have been the factor limiting the rate of economic growth.

One reason for a sluggish saving rate, despite rising levels of income, has been the strong drive for emulative consumption in our society. The powerful motivation to work and to earn is also expressed as motivation to provide for dependents and to display the fruits of effort.

A second reason is equally compelling. It is the urge to acquire intangible capital in the form of health, education, and training. Since expenditures for these purposes do not add to the stock of tangible reproducible assets, they are not counted as savings even though they add to the productivity of the individuals.

To maintain the ratio of saving to income in the face of these and other influences toward a high-consumption economy is a difficult task. During recent decades, retirement saving has been the principal sustaining force.[2] In the late 1940's, retirement saving averaged 23 per cent of personal saving, a decade later it averaged 36 per cent, and currently retirement saving is over 40 per cent of personal saving. Our projections for the future,

[1] Published by Princeton University Press for the National Bureau of Economic Research, 1961.

[2] See Phillip Cagan, *The Effect of Pension Plans on Aggregate Saving: Evidence from a Sample Survey* (Washington, D.C.: National Bureau of Economic Research, 1965).

however, suggest that this proportion might shrink to 31 per cent by 1975 as a result of the maturing of the pension structure.[3]

Thus it appears that we may face a declining impetus to saving from retirement-income programs in the decades ahead. A new burst of growth in private pension plans would delay this event. On the other hand, a major rise in social security benefit levels could displace a portion of private-plan growth.

Other saving media, however, may become of even greater importance —variable annuities, mutual funds, and savings certificates are a few examples. Efficient thrift services can and will be developed by our highly competitive financial institutions to exploit opportunities to promote savings. The response of the life insurance industry in providing a diversity of financial and thrift services is already being witnessed. It takes no great foresight to visualize a major change in the traditional role of the life insurance industry in the economy. Such adaptation to change will be responsive to the public interest and will again evidence the great contribution the industry is making to the achievement of our basic economic objectives.

THE OUTLOOK FOR PERSONAL SAVINGS

TILFORD C. GAINES:

Economics has been known as the "dismal science" almost since its birth as a formal discipline nearly two hundred years ago. Perhaps economists are too inclined to look for problems and dangers, and this predilection may account for the expressions of alarm that one hears daily from economists on the economic prospects for 1968. The economy this year has been passing through a period of relatively stagnant business activity, with the bulk of the apparent growth accounted for by government spending and price inflation. It may seem paradoxical that against this background most economists should be deeply concerned that a boom will emerge next year that will put pressure on our productive capacity, lead to unacceptable price inflation, and create extreme difficulty for the dollar on the international front.

There are a number of reasons for economists' concern on the economic outlook. One is the fact that business revival has resumed while industry is still operating only a shade below optimum plant-utilization rates and while the labor force, particularly the skilled labor force, is virtually fully employed. In the past, resumption of growth after a business recession or

[3] See Roger F. Murray, *Economic Aspects of Pensions: A Summary Report* (Washington, D.C.: National Bureau of Economic Research, 1967).

lull has ordinarily been characterized by sharp improvement in the first few quarters. This time, one must ask how the demand for additional goods that would characterize such a surge can be satisfied without severe price pressures. Another concern is that, in spite of an easy Federal Reserve policy, our credit markets have been under unremitting pressure and interest rates on most obligations already are at historical highs. The most important reason for concern, however, is the federal budget. In the absence of a tax increase, and such action becomes less likely with each passing day, the current forecast is that the federal government will incur an administrative budget deficit of some $29 billion in this fiscal year, an all-time record except for the World War II years. The superimposition of this stimulus upon an economy that should be expected to expand nicely without it creates the danger of truly troublesome developments during 1968.

Perhaps the most important source of hope that we may get through the months ahead without the horde of problems that economists fear is the recent behavior of savers. Beginning in the fourth quarter of last year, the public shifted its expenditure pattern toward sharply increased savings. As a consequence, an orderly economic adjustment from the boom conditions of 1966 was achieved and, out of the enlarged flow of savings, funds have been available to support the unprecedented demand for credit that we have witnessed this year. It is my assignment today to appraise the outlook for this vital economic sector. If consumers continue to save out of their incomes at recent rates, our chances of getting through 1968 with only an acceptable degree of inflation and a minimum of problems are reasonably good. If, on the other hand, consumers shift back to the lower rate of savings that has been customary in periods of rising business activity, the dangers that economists see will almost surely become reality. Let us look briefly at what has happened during this past year and attempt to determine why it has happened.

The year 1966 was unique in a number of ways, one of them being the behavior of savers. Total savings increased approximately in line with the growth in income, representing 5.9 per cent of total disposable income compared with 5.8 per cent in 1965 and 6.0 per cent in 1964. However, savers sharply altered the channels through which they directed their savings. Bank deposits and savings and loan shares of individuals grew by only $17 billion, down almost 50 per cent from the previous year, while direct purchases of securities increased from a net total of $4 billion in 1965 to $14.5 billion in 1966. A good part of the difficulties in our financial markets last year was the result of this shift from saving through the financial intermediaries to direct investments in securities.

Economists have labeled this process of withdrawing money from savings institutions and investing it directly in the market as disintermediation—a jawbreaking word that no one is terribly pleased with. All intermediaries were affected. The growth in individuals' deposits at commercial and mutual savings banks fell about $10 billion short of the 1965 performance, and growth of savings and loan shares and deposits in credit unions fell nearly $5 billion below 1965. The insurance industry also was affected, as policyholders discovered that their policies contained a provision permitting them to borrow from the company against the cash value of the policies at a fixed rate of interest, usually 5 per cent, that was well below what this money could earn on direct investment in top-quality securities. Because of the diversion of the savings flow from the usual intermediaries to direct investment in United States governments, government agency securities, finance paper and the like, the intermediaries found their resources severely squeezed and their customers found credit at these intermediaries more and more difficult to obtain. In particular, because of the sharp contraction of the savings flow through savings institutions that lend to the real estate industry, mortgage credit and residential construction were severely squeezed.

As we look ahead, it is important that we attempt to appraise not only the likely course of total savings, but also whether the disintermediation phenomenon of 1966 will recur. The pattern of 1967 has been one not only of a higher savings rate, but also of a return to the customary pattern of savings flow through financial intermediaries. During the first half of this year, the total of bank deposits and savings shares owned by individuals grew by almost $20 billion, a record rate, while ownership of securities was reduced by $5.5 billion. A good part of the spectacularly rapid growth in claims on financial intermediaries clearly has been the result of reintermediation—which is probably an even unhappier word than disintermediation—as savers have found it attractive for one reason or another to move out of the securities that they purchased in 1966 and back into the savings institutions.

Also, as I have remarked earlier, the total of savings has increased. During the first nine months of 1967 the public has put aside savings at the rate of about 7 per cent of disposable income, at least a point higher than the 6 per cent or less that typically is saved. The most important reason for the higher rate of total savings has been a sharp reduction in the growth of individuals' debt from nearly $10 billion in the first half of 1966 to only $3.3 billion in the first half of 1967. Increases in debt are subtracted from the total of measurable savings in arriving at net financial savings of individuals.

How may we explain the shift this year both to a higher rate of savings and to a renewed use of savings institutions? One possible explanation is that consumers' inventories of goods had been rather thoroughly stocked during the preceding six years of prosperous business. In particular, record sales of automobiles and other major durable items had to level off at some point no matter how attractive the styling, and, as consumers found their needs for such items satisfied, it was possible for them to divert a larger part of their income into savings. Probably a much more important reason for the higher rate of savings this year, however, has been the range of perplexing uncertainties that have bewildered the public. Late last year and early this year the uncertain business outlook and, therefore, the uncertain outlook for job tenure were no doubt influences. Historically, consumers have saved a larger part of their incomes for the proverbial rainy day when economic storm clouds seem to be forming. More recently, the sustained high savings rate has very likely been influenced by other uncertainties, such as Vietnam, price inflation, and the prospect of higher taxes. It is not too much of an exaggeration to say that the public is deeply bewildered and disturbed, and when such a climate prevails the tendency is to save more. The threat of serious inflation, which logically one would expect to cause consumers to spend more rapidly, usually seems to lead to a more cautious approach toward spending.

The shift in the savings flow back toward the intermediaries probably also has been caused to some degree by the climate of uncertainty. Just as consumers become more cautious on expenditures when they are bewildered, they also tend to turn to the safest and most immediately available haven for their money. Uncertainty is only part of the explanation for reintermediation, however. Another part of the explanation is that once the more volatile "hot money" was shaken out of the banks and savings institutions last year, the steady flow of savings that had been going on side by side with the withdrawals was able to emerge as the dominant force. Finally, and most important, the sharp change in interest rates available through different media has drawn money back into the intermediaries. During the second and third quarters of 1966, when the flow of savings out of the intermediaries was at its crest, banks generally were paying 4 per cent on savings accounts and savings and loan associations were paying 4¼ per cent, while yields on one-year Treasury bills, short-term government agency securities, and finance paper were close to 6 per cent. By contrast, most banks today offer a rate of 5 per cent and savings and loan associations a rate of 5¼ per cent on savings certificates, and most short-term market rates of interest are little more than competitive with these rates. For example, finance paper offers a yield in the neighbor-

hood of 5 per cent, one-year bills are at $5\frac{1}{4}$ per cent, and shorter government agency securities yield about $5\frac{1}{2}$ per cent. At yield differentials no greater than this, individual savers prefer the convenience and safety of saving deposits and savings shares over direct marketable investments.

Let us turn now to the difficult question of what lies ahead, both for total savings flow and for the possibility of a new period of disintermediation. My own judgment, with all of the necessary caveats, is that the rate of saving out of disposable income will remain relatively high for the next several quarters and that we will be successful in avoiding a disturbing degree of disintermediation.

On the savings rate, it is not too likely that the recent, unusually high 7 per cent figure will be sustained through 1968, but there is a good chance that the rate might settle back only to about $6\frac{1}{2}$ per cent, well above the $5\frac{1}{2}$–6 per cent rate that has been typical in the past. Similarly, I would not expect the recent remarkably high rate of growth of savings deposits and savings and loan shares to be maintained. Some disintermediation into marketable securities is already occurring, side by side with the strong flow of new savings into the intermediaries. As consumer spending grows, as the savings rate slips from the 7 per cent range, and as market rates of interest rise still further, more withdrawals from savings intermediaries should be expected, tending to reduce the net figures. I believe, however, that there are persuasive reasons for hoping and believing that the shattering outflow of savings that occurred last year will not recur in anything like the same dimensions in 1968.

The most important reason for expecting the public to continue to save at an unusually high rate is that most of the uncertainties and frustrations that are now influencing the public's attitudes threaten to be with us for some time. There is, of course, the constant risk that, if price inflation should actually get out of hand, consumers might accelerate their purchases as an inflation hedge. But the very fact of conservative consumer behavior rooted in public unease should be a powerful safeguard against serious inflation. Moreover, present evidence suggests that shortages of mortgage money and of industry capacity might prevent consumers from fulfilling their home-buying intentions. To the extent that actual residential construction falls short of the public's desire for new housing, the net result might be favorable for savings, since consumers put money aside for the day that they will be able to finance their new homes.

The most important influence on savings, however, is likely to be the public's uneasy uncertainty. In view of the importance of maintaining uncertainty, perhaps a case could be made for the proposition that the tax

surcharge bill now before Congress should not be passed, since, once it is passed, an important element of uncertainty will be eliminated. That proposition is not too appealing to me, however, since the net restraining influence of a tax increase would no doubt be much more powerful than the elimination of uncertainty that is generated so long as it is hanging over the taxpayers.

What are the persuasive reasons for believing that disintermediation will not be a serious problem this next year? First is the fact that the rates of interest paid by the savings intermediaries are now significantly higher than they were last year when disintermediation was a problem. Perhaps the 5–5¼ per cent that savings institutions are now paying on time savings certificates is sufficiently high in an absolute sense that there will not be too much inducement for savers to seek other investments. Also, if still higher rates of interest were to prove necessary to hold deposits, the improvement that banks and mutual savings associations have been able to achieve in average portfolio income in the past year creates some latitude for further, competitive rate adjustment.

A second consideration is that all the net growth in savings accounts during the past year has been in fixed-time deposits, usually with a requirement of ninety-day advance notice if the deposit is to be withdrawn before the stipulated maturity. It is considerably more difficult for a saver to decide to withdraw money from an intermediary for investment in a higher-yielding marketable security when the effective date of his new investment is three months in the future. Such a decision involves a forecast that market interest rates will still be attractive three months ahead when the money for investment will be available.

The third reason for believing that serious disintermediation will not once again rear its multisyllabic head is the aforementioned tendency of savers when they are uncertain about the future to hold their money in a safe, convenient haven. Their friendly bank or savings and loan association is both convenient and has the advantage of long familiarity.

Probably the most important reason for optimism is that much of the money that flowed out of the intermediaries last year has never returned and therefore cannot cause further trouble. In a sense, the events of 1966 reflected a massive education of those savers who were willing to devote the time and effort to managing their savings for maximum income. If the yield spreads available to the other savers last year did not result in their moving to market investments, it is not too likely that yield spreads in the year ahead will result in such movement. Of course, nothing that has been said here should be interpreted to mean that there will be no movement of money between savings institutions and the market. Such movement

occurs in one direction or the other continuously; and, with market rates of interest already moving above the rates paid by saving intermediaries, it is to be expected that withdrawals from savings accounts and share capital accounts will increase, particularly right after quarterly interest dates. What is suggested here is that this enlarged flow will not turn into a massive hemorrhage of the sort that occurred last year.

The preceding optimistic remarks are something like Hamlet, not only without the Prince of Denmark but also lacking the King, the Queen, and a host of minor characters. Specifically, it has no explicit forecasts on what is likely to happen to interest rates, what Federal Reserve policy may be expected to be, and what the "flash point" might be for market rates of interest that could trigger disruptive disintermediation. Taking the latter point first, I confess complete inability to offer even an informed guess as to what level of interest rates might induce large-scale withdrawals of deposits. There almost surely is such a level, but whether it is 6 or 7 per cent or an even higher rate is pure speculation. It is reasonably clear that the critical rates in this connection are those on obligations of fairly short maturity, say, one or two years. And it does appear that the "flash point" is at least 6 per cent, since yields close to 6 per cent already are available on some United States government agency obligations.

Whatever the "flash point" might be, what is the likelihood that it will be reached? The answer to this question involves a forecast of the likely course of Federal Reserve policy, an unavoidable but rather discouraging exercise. Federal Reserve policy in recent months has been aimed primarily at anchoring the short-term, interest-rate structure in order that the Treasury's financing requirements might be met without driving interest rates to disintermediation levels. The principal emphasis has been upon supplying enough bank reserves to the market to hold the federal funds rate in the neighborhood of 4 per cent, thereby creating an attractive arbitrage opportunity for banks and dealers in holding short-term government securities. In effect, the Federal Reserve has been willing to supply whatever amount of new reserves was needed to prevent short-term interest rates from rising significantly above current levels.

This is likely to be the emphasis of policy at least through the balance of this year and probably into 1968. At some point, however, as the economy gains momentum and if serious inflationary pressure becomes an immediate concern rather than a prospective concern, the Federal Reserve in all likelihood will feel compelled to impose some degree of restraint upon its willingness to supply new reserves to the banking system. The time for this decision probably will arise before the middle of 1968. As and when the Federal Reserve shifts its policy, short-term interest

rates will almost surely move significantly higher, and at that time we will have a clearer reading on the responsiveness of savers to higher market rates of interest. The Federal Reserve system is deeply concerned that flows of savings out of financial intermediaries should not reach last year's level and that such flows should not be permitted to create the problems and dangers that arose in 1966. Therefore, my own conclusion is that any move toward tighter Federal Reserve policy in the year ahead will be taken cautiously and within the limits imposed by the need to avoid large-scale disintermediation.

In conclusion and summary, therefore, I see the net growth of savings through the savings intermediaries falling from recent unusually high levels, caused both by a somewhat lower savings rate and by some degree of disintermediation. On the other hand, I believe that consumers will continue to save a more-than-ordinary proportion of their incomes. I also conclude that the disintermediation process will be prevented from reaching a point of serious damage either to any group of financial institutions or to the residential real estate market. The outlook is for a high level of savings, most of which will be channeled through customary intermediaries, but also for an extraordinary high level of demand for credit, principally from the federal government, that will ultimately force short-term interest rates into higher ground.

THE LONGER-TERM OUTLOOK FOR SAVINGS AND THE ECONOMY[1]

WILLIAM C. FREUND:

The Role of Savings

I can think of few topics more timely or more vital from the viewpoint of economists and actuaries than the role of savings in the American economy. In my remarks, I would like to dwell on three major aspects of savings—their role in economic growth, their effect on the level of prices, and their influence on the level of interest rates in the decade ahead.

Economic Growth

The first aspect of savings—their role in economic growth—is still beclouded by the Keynesian view that excessive savings act as a drag on economic expansion much as they did in the deep depression of the 1930's. This view has by no means yielded to the new environment of uninterrupted postwar prosperity and inflation. Interest rates are at a level not

[1] I want to express appreciation to my Prudential associate Mr. James L. Essig, senior economist, for valuable assistance in the preparation of this report.

seen in the United States in over forty years. Clearly, savings are currently inadequate to provide all the funds being demanded by business and corporations. Yet many economic textbooks still ignore the role of savings in economic growth or relegate the subject to some obscure chapter. The textbook emphasis remains on the Keynesian analysis of inadequate demand.[2] Even in Washington and Ottawa, government attitudes still reflect the view that somehow savings pose an economic roadblock to a more prosperous society. For example, a staff study of great interest to the insurance industry was issued just a year ago by the Joint Economic Committee. Incredible as it may seem, this report argued that private pension funding was *harmful* because of the savings it generated. I think that it is worthwhile to read an entire paragraph from this report because it shows the great lag between economic knowledge and its dissemination.

> Were the economy operating at rates of growth which tended chronically to be excessive, there would be a case for devising ways to induce additional saving and a highly fragmented pension system might be as good a way as any. However, the economy is not subject to chronic excess demand; rather, there is a more or less continuing problem of keeping demand adequate. In such circumstances, a high rate of saving does not add to but subtracts from the capital stock by depressing demand for output and the motive to invest.[3]

In Ottawa, meanwhile, the Royal Commission on Taxation issued a six-volume report which recommended a complete revamping of Canada's tax system.[4] The main thrust of the Carter Commission recommendations was in favor of a greater sharing of current output rather than a speedup in economic growth, with enlarged benefits for all. Thus the problem of inadequate savings, both domestic and foreign, to finance needed investment was given a low priority. The Carter Commission, in fact, acknowledged that its proposals would result in a loss of some personal savings and that savings via life insurance would be hindered. The life insurance industries in both the United States and Canada have, of course, responded to these challenges by pointing out that without savings there can be no economic growth.[5]

It is indeed paradoxical for United States and Canadian government-

[2] Actually, Keynes was less naïve than some of his disciples. He stressed the importance of aggregate demand in dealing with depressions. But in a less well-known book, *How To Pay for the War*, Keynes urged compulsory consumer saving to smother some of the excessive demands generated in times of war.

[3] Congress of the United States, *Old Age Assurance: An Outline of Issues and Alternatives* (materials prepared by the Committee Staff for the Subcommittee on Fiscal Policy of the Joint Economic Committee, 89th Cong., 2d sess., 1966), p. 18.

[4] *Report of the Royal Commission on Taxation*, 1966.

[5] See "Comments of American Life Convention and Life Insurance Association of America on Joint Committee Print, *Old Age Income Assurance: An Outline of Issues and*

sponsored studies to imply that private savings are somehow pernicious, or at best neutral, and may impede economic expansion. Quite the opposite is true. The other day I met with a delegation of economists and government officials from one of the underdeveloped African nations. They at least recognize that as long as consumption equals national output, as long as they fail to set aside some savings for capital formation, economic growth is impossible and per capita incomes will decline. The same principles hold in the United States. Economic growth hinges on an adequate flow of savings. The life insurance industry—which contributed so much to the understanding of these principles by financing the pioneering studies of Professors Raymond Goldsmith and Simon Kuznets—ought to make sure that every intelligent layman grasps the role of savings in generating rising living standards.

The need for saving was put forthrightly in a 1964 textbook entitled *National Income Analysis* by the present Budget Bureau director, Charles L. Schultze.[6] There can be no economic growth to speak of, in an advanced industrial nation like the United States, without investment in new plant and machinery, in education, in technological advances, and in the expansion of markets. This process of investment and growth requires savings. As Schultze put it:

> Rising productivity involves an increase in our ability to harness the forces of nature, for supplying power, transporting goods, and manipulating materials. This, in turn, requires not merely scientific and technical knowledge, but the provision of expensive plant and equipment. It requires, in other words, capital. And capital goods are not "free." They must be produced, using labor, materials, and machines that might otherwise have been utilized to turn out consumer goods. Providing the labor force with an increasing supply of machinery and equipment involves *saving*—the nation must refrain from consuming part of its output so that resources may be free to produce capital goods.[7]

Thus, savings constitute a vital link in the process of economic growth.

Prices

The important contribution of savings toward another national economic objective—price stability—is receiving greater recognition in today's inflationary environment. During intermittent periods of economic

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Alternatives," *ALC-LIAA Joint General Bulletin*, No. 1320, August 9, 1967. Also the Canadian Life Insurance Association, *Submission to the Minister of Finance: An Economic and Financial Appraisal of the Report of the Royal Commission on Taxation*, October, 1967.

[6] Charles L. Schultze, *National Income Analysis* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), pp. 113 ff.

[7] *Ibid.*, p. 118.

slack, as in 1961–64 when the country had idle labor and plant capacity, economic growth could be financed through increases in the money supply without much concern about inflation. But under conditions of relatively full employment, which national policies seek to promote, capital formation can safely be financed only out of savings.

There is a great deal of discussion today about the desirability of a tax increase. I am wholly persuaded that without imposition of higher taxes inflationary pressures in 1968 will intensify. But is not a tax increase a way of extracting savings from society? The President has argued, and I think rightly, that if Congress neglects to enact a tax increase, there will be another compulsory diversion of purchasing power—not in the form of higher taxes but in the form of inflation. In either case, savings will be siphoned off and purchasing power reduced.

In the first half of 1967, government spending, especially for defense, rose sharply. Fortunately, consumers stepped up the percentage of income set aside for saving, or in the economists' jargon, increased their marginal propensity to save. The result was to lower consumption below what it would otherwise have been and to take the edge off inflation. An economy at the verge of full employment needs more savings to avoid inflation. It can be voluntary, as in early 1967, or it can be brought about through higher taxes. At present, indications are that consumers are about to reduce their savings ratio and to step up the proportion of spending out of income. The result threatens to produce economic overheating. Compulsory saving, in the form of temporarily higher taxes, appears to be a necessary prescription for economic health. Higher taxes, then, are an alternative only to greater inflation.

Larger savings can also reduce some of the pressures emanating from the "wage-push" side. Large investments in productive plant and equipment tend to narrow the gap between wage settlements and productivity gains and thereby help to limit the inflationary push coming from the wages side.

I have so far discussed the role of savings in generating economic growth and maintaining price stability. Obviously, actuaries should have a keen interest in economic growth and prices. But let me proceed now to look into my crystal ball—to evaluate some longer-run trends in the supply and demand for savings and their effects on interest-rate prospects to 1975. This subject, I know, will be of great interest to this audience, and rightly so. Interest rates, my actuary friends tell me, fluctuate more than mortality rates. Therefore, the long-run interest-rate assumption may be the really crucial estimate in establishing premiums on new life insurance policies. Most important, in the pension field a small change in the assumed interest rate yields an important change in total costs.

Outlook for Interest Rates to 1975

The interest-rate outlook over the next decade must be framed against some historical perspective. Prime long-term corporate bond yields have followed a W-pattern over the past century. They declined from the 1870's to a low at the turn of the century and then pursued an upward trend until 1920. Yields then entered a downtrend for the next twenty-six years, reaching all-time lows after World War II. Since that time the long-run trend of bond yields has been upward.[8] Moody's Aaa corporate bond yields reached a high of 5½ per cent in September, 1966, compared with the postwar low of 2½ per cent in April, 1946. After a brief respite early this year, the yield has again started to mount and is now in excess of 6 per cent.

Will the post–World War II upsurge in interest rates continue, or can we expect a stabilization, or even a decline, in rates over the next few years? The outlook, as always, depends upon the supply and demand for loanable funds. Demand may be regarded as total "investment" demand (including consumers and government) plus any demand for net increases in idle funds. Supply consists essentially of current savings, plus or minus any change in the money supply.

On the demand side, several powerful forces will be at work over the next decade.

1. Substantial financing will be required to enable persons born during the post–World War II "baby boom" to establish their own family units. The number of persons aged 20–29 will rise 43 per cent between 1966 and 1975, compared with an increase of less than 14 per cent for the total population.[9] These young people will require housing, major appliances, and other household equipment and will incur the special costs of starting families. People in their twenties typically are heavy spenders—often in excess of their incomes.

2. Government spending will account for a rising share of total GNP because of pressing domestic social problems, the country's international position, and, above all, the incessant demand for state and local government services by a growing population. An upsurge in government spending for Great Society–type programs is likely once outlays for Vietnam begin to taper off. Political necessity will call for substantial investment in such capital-intensive areas as urban renewal, rapid transit, pollution

[8] Sidney Homer, *A History of Interest Rates* (New Brunswick, N.J.: Rutgers University Press, 1963), pp. 332–33.

[9] Calculated from United States Department of Commerce, Bureau of the Census, *Current Population Reports: Population Estimates* (Series P-25, No. 359, February 20, 1967), Table 4, p. 14. This estimate is based on the Bureau's Series B assumption of continuation of the average fertility rates for 1964–65.

control, and hospital construction. Heavy financing will continue to be required for security purposes. To cite one example, Secretary of Defense McNamara has estimated that the ten-year cost of a missile defense system would range from $5 billion for a "thin" defense system, now scheduled to get under way, to $40 billion for a "heavy" one.

3. Business capital spending will increase at about the same rate as total GNP, in contrast to the boom conditions in 1964–66. Such outlays, nevertheless, are projected to 1975 at 50 per cent above 1965's cyclically high level. A continuing high rate of technological change is expected as a result of the interdisciplinary character of current basic research in the natural sciences, a closer interdependence between theoretical and applied technology, and an enormous increase in the number of scientific workers.[10]

The demand for investment funds will, as in the past, mirror trends in economic activity. I anticipate that the total volume of *net new* funds raised in credit markets by consumers, governments, and business will rise from an annual average of $60.7 billion in 1961–65 to $105 billion by 1975. Mortgage financing will provide the fastest-growing use of funds through 1975, reflecting the great surge in household formation just beginning to get under way.

The net new supply of loanable funds is primarily determined in the long run by savings. Historical statistics compiled by Raymond Goldsmith show that the great bulk of savings originated in the personal sector, with various forces operating to hold down government and business savings.[11]

Several powerful forces will be operating to restrain personal saving during the next decade.

1. The population group aged 40–64, which generally shows the highest savings rate, will grow by less than 5 per cent between 1966 and 1975. This compares with an estimated growth of almost 14 per cent for the total population. On the other hand, the age groups which spend a high proportion of income (ages 20–29 and 65 and over) will be increasing at rates well in excess of the rest of the population.[12]

2. The long-term trend in the United States toward greater income equality appears to have intensified since 1961, at least at the upper end of the income scale. The share of aggregate income of the highest fifth of

[10] Simon Kuznets, *Capital in the American Economy: Its Formation and Financing* (Princeton, N.J.: Princeton University Press, 1961), p. 442.

[11] Raymond W. Goldsmith, *A Study of Saving in the United States* (Princeton, N.J.: Princeton University Press, 1955), Vol. I.

[12] United States Department of Commerce, *op. cit.*, p. 14.

families fell from 43 per cent in 1961 to 41 per cent in 1965. The share of the top 5 per cent of families dropped from 18 per cent to 15 per cent.[13]

Continuation of this trend would, of course, have negative implications for savings since people in the higher-income brackets generally save larger percentages of their income. The move toward greater income equality will continue during the next decade. Substantial increases already in sight for social security, Medicare, and other transfer payments will help redistribute income to people in the lower-income brackets. Furthermore, Great Society–type programs, benefiting mainly people with smaller incomes, will account for a larger share of future government outlays. Finally, it seems reasonable to expect continuing egalitarian trends in tax policy, as illustrated by recent proposals for a negative income tax and sharing of federal revenues with the states.

3. Spending for intangibles, such as education and training, health, and so forth, has recently been advancing much faster than total GNP. Most people regard such spending as investment in future-earnings potential, and they accept such outlays as a substitute for personal savings. Continuation of this trend, too, will tend to reduce the amount of savings available to the capital markets.

Personal savings will continue their fairly stable long-run growth over the next decade, although within limits set by the constraints that I have discussed. These savings will be largely channeled to users via the various financial institutions, such as life insurance companies, thrift institutions, pension funds, and the like. An especially rapid growth is expected for the savings banks and savings and loan associations as they recoup some of their recent loss of deposits to commercial banks and gradually evolve into new multipurpose savings institutions.

The amount of net funds provided to the capital markets annually by life insurance companies rose quite slowly during the 1950's, but growth accelerated during the 1960's and will continue to be rapid over the next decade. Life insurance reserves will rise due to the substantial increase expected in family formation. Pension reserves already are reflecting the increased competitiveness of the life insurance industry in this field. Noninsured pension plans, while continuing to grow impressively, will build up reserves at a slower pace than in recent years. This will reflect not only the greater competition from insured plans but also the beginnings of substantial benefit payments.

The commercial banks normally experience sharp cyclical swings as a source of funds. From 1961 through 1965, a very liberal monetary policy

[13] United States Department of Commerce, Bureau of the Census, *Current Population Reports: Consumer Income* (Series P-60, No. 51, January 12, 1967), Table F, p. 5.

coupled with rapid gains in time deposits enabled the banking system to supply nearly 40 per cent of the country's total credit needs. Continuation of the recent rate of monetary expansion, however, would set off dangerous inflationary pressures. For this reason, I expect some slowing in monetary expansion from the very high rates of recent years.

This review of the forces underlying the supply and demand of loanable funds indicates that long-term interest rates are likely to remain at approximately the levels reached in 1965. The extreme altitudes of late 1966 and of the present time are probably a special situation composed of both cyclical and political elements.

In projecting interest rates, I prefer to set down explicitly the supply and demand for funds, as I have done in Table 1. One way to judge interest-rate pressure is to view the "residual" supply—the funds coming from individuals and foreigners. If this residual category is large, it means that the institutional supply of savings will fall short of the demand. Under those circumstances interest rates will need to be high as a way of inducing individuals to bring the needed residual supply into the market place. If the residual is small, interest-rate pressures will be less.[14] My current analysis indicates that this interest-elastic category that I have called the residual supply will be only slightly larger in 1975 than it was in 1965 but not as substantial as it was during the credit crunch of 1966. Thus I would project long-term prospects for interest rates (apart from cycles) at around the 1965 level, or close to 5 per cent for Aaa corporate issues. Yields on lesser-quality issues will be commensurately higher. As I will discuss in the concluding section of this paper, I am here projecting the trend of rates over the next decade. I do not rule out, by any means, occasional periods of economic adjustment or of credit crisis reminiscent of the fall of 1966.

Interest Rates and the New Economics

It behooves every economist to be cautious in proclaiming that a New Economic Era has arrived—a period in which major depressions will be avoided and only full employment and growth will predominate. Many individuals who remember the Great Depression of the 1930's are likely to be skeptical of any pronouncement of the arrival of a new era. They remember too vividly when other speakers during the 1920's proclaimed our conquest of business cycles once and forever. The stock-market crash

[14] On the interpretation of the "residual," see my article "An Appraisal of the Sources and Uses of Funds," *Journal of Finance,* May, 1958, as well as the joint article with Edward Zinbarg, "Application of Flow of Funds to Interest Rate Forecasting," *Journal of Finance,* May, 1963.

of 1929 and the massive decline in interest rates were a traumatic experience for those who lived through it.

I believe that there have been so many profound changes in the nature of our economy, in our understanding of economic processes, and in our willingness to head off cumulative contractions that we will never again have to witness the disastrous history of the 1930's. As a result, interest rates will not undergo the wild gyrations of the prewar period. As long as our economy stays close to the full employment path, interest rates will

TABLE 1

NET SOURCES AND USES OF INVESTMENT FUNDS, 1961–65, 1965, 1970, AND 1975

(Billions of Dollars)

	1961–65 Average	1965	Estimate for 1970	Estimate for 1975	Percentage Change	
					1965–70	1970–75
Uses (funds raised):						
Consumer credit	6.9	9.9	9.0	11.5	− 9%	28%
Mortgage financing:						
Residential 1–4-member family	14.3	16.0	19.0	26.0	19	37
Income property—residential and other	8.4	9.5	14.0	17.5	47	25
Government and government agency securities	12.1	11.4	14.0	16.5	23	18
Nonmortgage business financing:						
Bonds:						
Nonfinancial corporations	4.5	5.4	6.5	8.0	20	23
Financial corporations, noncorporate & foreign	2.2	3.2	4.0	5.0	25	25
Corporate stocks	1.1	0.3	2.5	3.0	*	20
Loans to business (commercial banks & other)	11.2	19.5	14.5	17.5	−26	21
Total	60.7	75.2	83.5	105.0	11%	26%
Sources (funds supplied):						
Life insurance companies	6.9	8.1	10.0	12.0	23%	20%
Noninsured pension funds	7.0	7.5	10.0	12.5	33	25
Savings banks, S & L's, and credit unions	14.9	14.4	21.0	27.0	46	29
Fire & casualty insurance companies	1.3	1.9	2.0	2.5	5	25
Investment companies	1.2	1.6	2.0	2.5	25	25
Commercial banks and monetary authorities	23.2	32.8	28.5	37.0	−13	30
Residual	6.2	8.9	10.0	11.5	12	15
Total	60.7	75.2	83.5	105.0	11%	26%

* Omitted because of small base.

remain relatively high. The threat of the future lies more in occasional periods of intense and excessive demands than in deep depressions. Consequently, interest rates are likely to fluctuate at a high level and within a narrower range.

A number of factors lead me to be optimistic that a major depression can be avoided. This is not to say that we will always avoid recessions. We have had four of them in the postwar period—in 1949, 1954, 1958, and 1961—but each of these recessions was relatively mild and long-term interest-rate fluctuations were modest. Let me just outline briefly some of the major forces likely to produce a more stable rate of economic growth.

1. We have greatly improved the depth of our understanding of economic processes, including the determinants of high levels of employment and income. Judging by recent history, I would even say that we have learned our lesson too well. Our economic policymakers appear to be more willing to take firm action to stimulate the economy during periods of weakness than to restrain excessive demands during periods of inflationary stress. Undoubtedly the high level of interest rates today reflects the market recognition of the likelihood of continued inflationary pressures. I would judge that the present 6 per cent plus yields on high-grade, long-term bonds includes something like a 2–2½ per cent allowance for anticipated annual rate of inflation.

2. There is a much greater willingness on the part of both political parties to invoke appropriate policies to sustain a high level of employment and to promote economic growth. The Employment Act of 1946—a landmark in our economic history—declares it accepted national policy to pursue the twin objectives of high employment and maximum purchasing power. We are no longer content simply to sit back and wait for automatic forces to pull us out of recessions.

3. Before appropriate action can be taken to sustain full employment, we must know where the economy stands and where it is heading. In the depths of the Great Depression of the 1930's we had no adequate ideas about either the causes or the magnitude of the decline. At the very time that this catastrophic event was taking place, we did not know the extent of unemployment or the specific sectors of the economy responsible for the decline. As a result, both business and government were operating in almost total darkness. Today the situation is entirely different. We have developed abundant economic statistics. The gross-national-product figures have become almost as much public knowledge as baseball scores. Each quarter, detailed figures on GNP are published with a breakdown as to the sources of change in aggregate economic activity. The monthly

Federal Reserve Board Index of Industrial Production, along with a host of other economic statistics, enables the economic analyst to study and comprehend the fundamental factors making for economic expansion or decline. When the business statistics show only the slightest wiggle, the Joint Economic Committee of the Congresss calls hearings to explore the view of private and public officials on appropriate economic policies. This public awareness of what is going on in the economy and our sensitivity to economic change are essential prerequisites for the utilization of available tools of control.

4. In addition to our greater understanding of economic processes and our willingness to intervene directly, a number of important automatic stabilizers have been built into our economy. The most important of these is the graduated income tax itself. During a period of declining employment and falling incomes, a part of the drop in wages and salaries and other incomes is automatically absorbed by the progressive federal income tax system. In addition, there are a large number of so-called transfer payments which serve to cushion any business decline. In a period of recession, unemployment compensation benefits rise and social security payments increase as many people are induced to retire early.

5. There have been many financial reforms and structural changes since the Great Depression of the 1930's which make a repetition of that event less likely. I need mention only the establishment of the Securities and Exchange Commission and the Federal Deposit Insurance Corporation. In addition, I could cite a number of important structural changes in the private economy, such as the longer horizon of business planning and the growth of white-collar employment in our labor force.

6. Because we have succeeded during the postwar period in producing more stable economic conditions, the emphasis in public economic policy is changing from filling in the troughs and peaks of the business cycle to stimulating long-run economic growth. Let me just recall to our minds the fact that in 1964 we reduced federal income taxes some $15 billion for American corporations and individuals. This tax reduction was designed to stimulate a still more rapid rate of economic growth at a time when the economy was relatively prosperous but capable of accelerating its growth. This was also the goal of the investment incentives—the 7 per cent investment credit and accelerated depreciation.

Despite the skepticism of the older generation, I believe that we truly are in a new economic era. Recessions are likely to be mild and real economic growth on the order of 4 per cent a year. If this prognostication is anywhere near correct, it means that interest-rate fluctuations are going to be less extreme and that the high rates of the 1960's will be the rule

rather than the exception. We are more likely to experience occasional credit crises, such as occurred in the fall of 1966, than any deep depression. These economic considerations undoubtedly will influence the thinking and assumptions of actuaries as we enter the world of the 1970's.

CHAIRMAN MURRAY: Thank you, Bill, for your courageous approach to these longer-range questions that are always difficult to diagnose so far into the future.

As you have listened to our two very capable and thoughtful economists this morning, you have heard a tying-together of two themes. The first relates to the general level of interest rates, and the second relates to the behavior of prices. You have been reminded that we are right now face to face with some rather crucial issues in the determination of economic policy to deal with inflationary pressures emerging in our economy in the short run. While Dr. Gaines is optimistic about the outcome, he reminds us that we are treading a very narrow path. This path requires some courage in meeting the events that lie immediately ahead of us and does not permit lack of careful thought or foresight.

Dr. Freund, in presenting his constructive view of what lies ahead through 1975, has given some comforting words, to actuaries at least, about the outlook for the general level of interest rates and a touch of concern about our continuing push for a high rate of economic growth under conditions of full employment.

Now we have a few minutes for any questions that you would like to put to any member of the panel.

MR. WALTER W. STEFFEN: Dr. Freund indicated first that statistics currently are available at an early time so that it is possible to take appropriate action to counteract whatever activity in the economy that we would like to adjust.

He also indicated that perhaps we have learned our lesson with regard to taking appropriate action to influence the economy when it is depressed but we have not done so when the economy is rising. There are, of course, two other elements—the political and administrative—which become factors in taking action. I think that we should recognize that these other two factors do not work quite as fast as the availability of statistics would permit. I would appreciate it if Dr. Freund could tell us a little more about the difficulties in these areas.

DR. FREUND: I join Mr. Steffen in deploring our unwillingness to take appropriate measures to head off prospects for excessive demands and an intensification of inflation. I agree that today we have the requisite tools

and the insight to act. There is a remarkable consensus among economists in universities, government, and business that we need to raise taxes, but we still seem unwilling to restrain the economy. I am still hopeful that ultimately good sense will prevail and that, when Congress returns in 1968, it will take action to increase taxes because the evidence for a tax increase will then be so overwhelming and no longer distorted by the economic effects of automobile strikes.

I think that the ultimate answer to the political problem in getting proper economic action is that Congress must, within limits and subject to its veto, give the President discretionary authority to vary tax rates.

We should remember that it took the President two years to get the tax *cut* through. I hope that it will not take two years to get the tax *increase* passed.

I think that, within carefully defined limits subject to the veto of Congress, we need to provide more flexible fiscal policy for the Administration.

MR. BRUCE E. NICKERSON: Dr. Freund placed considerable emphasis on the marginal role of individual savings. Also, as I understand it, the bulk of individual savings has gone into institutions, into what we might call its dollar investments, such as the savings banks, commercial banks, and savings and loans.

During the past decade we have witnessed a remarkable change through the very rapid growth of institutional investments in equity securities. I believe that all of us here see this trend continuing in the rush of the life insurance industry to variable annuities.

To what extent is the increasing amount of speculation through equity investments by giant institutional investors a threat to both economic stability and interest-rate stability?

DR. FREUND: To the extent that individuals speculate on high margins, to the extent that they buy stocks which can be called high fliers, venture situations, or special situations—not on the basis of any projection of earnings but simply because they think that they can unload them on some "suckers" before the market collapses—it is very unsound. I believe that this is the reason that the Federal Reserve Board recently announced that it was going to regulate the unregulated lenders and impose margin requirements on convertible debentures where a great deal of the speculation is taking place.

Some of the institutional emphasis on growth stocks falls into a different category in that they provide venture capital for the growth of firms and industry. I feel that we need to distinguish between the institutional

funds that flow into growth stocks on the basis of sound analysis and investigation, which are healthy for the economy, and unreasoned speculation such as we have seen in convertible debentures, which tends to be disruptive and adds an element of instability.

MR. NICKERSON: My particular concern was the activity of a growing number of mutual fund organizations toward high portfolio turnover or trading. When I used the word "speculation," I was thinking about the effect on the stock market and on the economy.

DR. FREUND: To the extent that this is not based on any sound analysis of prospects for the company and is engaged in with the hope that the institutions can sell out to other institutions before the bottom drops out, it is obviously a very unhealthy development.

CHAIRMAN MURRAY: This is commonly referred to in Wall Street as the "high performance kick" which is pervading the mutual fund industry. I think that this can be classified as one of the passing phases that we go through in the security market from time to time. It is self-evident that not all large investors with large amounts of capital can substantially outperform the average performance of all investors. Chasing this particular will-o'-the-wisp is a very popular activity, and it undoubtedly contributes to instability in stock prices.

The operations of the in-and-out fund manager can be seen to have a noticeable effect on the range of price fluctuations. However, we should not lose our confidence in the market mechanism. The exaggeration in price movements caused by this kind of aggressive search for performance also generates opportunities for other investors willing to take a somewhat longer view and capitalize on the opportunities presented by volatile price behavior. My own view is that this is not going away in a few weeks or months, but the incentives are there for other investors to trade against the short-term, performance-minded fund manager.

MR. WILLIAM F. WARD: What are the possibilities of restraining expenditures at all levels of government as a complete or partial alternative to increasing revenues by raising taxes?

DR. FREUND: I think that the greatest danger of overheating the economy is in the first half of 1968, when we will see a resurgence of private demands which have been marking time. We had a very large increase in government demands in 1967, but consumer spending was relatively restrained and business capital outlays were not going anywhere. I believe that the first half of 1968 will see the private sector come to life.

We will witness a resumption of inventory buying by business and more extravagant consumer spending, together with some increases in business capital outlays. If I am right about this, then we need restraints on the economy in the opening months of 1968.

Actually, there is very little that can be done about reducing government expenditures in the first half of 1968 since funds have been appropriated and committed. Any reduction in government spending will not be felt for six to nine months. This is why I believe that we need a tax increase during the first part of 1968 and that an increase in withholding taxes would be effective in immediately curtailing consumer spending power.

Dr. Gaines, do you agree to this?

DR. GAINES: I am in substantial agreement. I think that I see a somewhat better possibility—we might luck out next year without a tax increase if the savers, which means all of us, continue to save a large part of their spendable income next year. If this should happen, then we could get through as a result of this responsible personal policy side by side with irresponsible governmental policies and avoid the worst of the inflationary problems that we are facing next year.

I am very sympathetic to the question, since there is always the danger of validating a level of government spending by raising the necessary taxes to pay for them. The tendency is to keep the taxes on the books and to continue to escalate spending in future years against this higher tax base. I would probably be opposed to the tax increase if I felt more optimistic about the odds. It seems to me, however, that we should do everything that we can about cutting expenditures and that the tax increase provides us with insurance against the worst things that can happen next year.

I travel to and from Washington frequently, and during my visit last week I was impressed with the disarray in government at the present time. As I talked to congressmen and government officials, there seems to be a tendency for everyone to go his own direction to attempt to save his own skin in next year's elections. There is no co-ordination of policies. There are the inability of the Administration to lead and an absence of leadership in Congress. I exhort you to get your congressman aside and reason with him. Getting elected next year may be important to him, but, if he acts irresponsibly now, the inflationary problems that we could encounter next summer would be substantially more damaging politically than the present tax bill or a reduction in expenditures. I think that all of us businessmen are too inclined to stay away from politics. This is one time when we all have an obligation to get involved.