

FEDERAL
RESERVE
BANK OF

Cabernet
LIBRARY

OCT 20 1969

FEDERAL RESERVE BANK OF PHILADELPHIA

SAN FRANCISCO

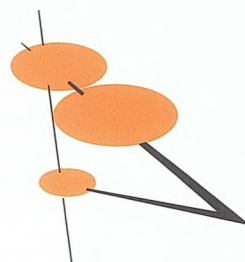
Monthly Review

In this issue

Raising the Roof?

Putting Money into Bonds

Financing the Business Boom



September 1969

Raising the Roof?

... The Administration has proposed removing the 4¼-percent rate ceiling on new Treasury bond issues; here are the pros and cons.

Putting Money into Bonds

... The Administration hopes to stimulate the lagging savings-bond program by raising the interest rate on bonds to 5 percent.

Financing the Business Boom

... Financing requirements of the business-investment boom have led to heavy reliance on external sources of funds since 1965.

Editor: William Burke

Raising the Roof?

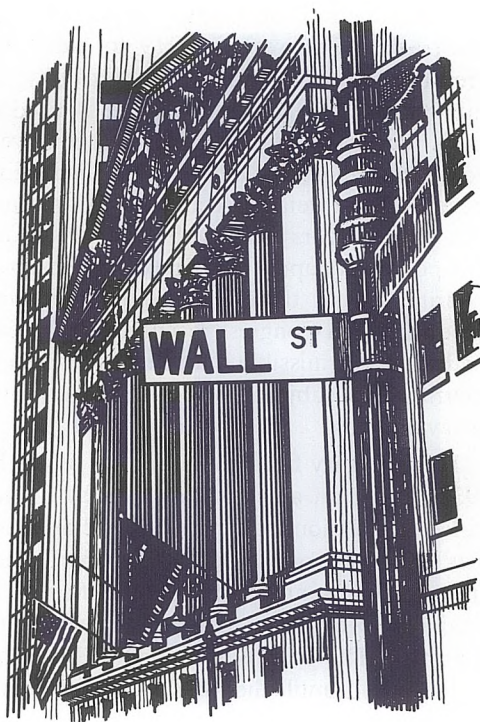
Over the past four years, the Treasury has been unable to borrow any long-term funds in the open market, and over the past year, it has watched a declining sales trend in its savings-bond program. The problem? Mainly, it is the $4\frac{1}{4}$ -percent statutory ceiling on the rate of interest the Treasury is permitted to pay on its marketable bonds and nonmarketable savings bonds.

This ceiling prohibits the Treasury from issuing any new securities of more than seven years' maturity which bear an interest coupon greater than $4\frac{1}{4}$ percent. The rate limitation does not apply to new shorter-term issues; on these issues, the Treasury is able to set rates in line with changing market conditions.

Today's financial markets have made the $4\frac{1}{4}$ -percent ceiling unrealistic—an effective barrier to Treasury borrowing, in the eyes of many experts both inside and outside of Washington. In the closing days of the 1968 Congressional session, the Senate approved a bill to eliminate the legal interest-rate ceiling; the bill died, however, when the House failed to act. In June of this year, 67 of the nation's foremost economists issued a major policy statement strongly urging elimination of the ceiling. And in mid-July, the Nixon Administration asked Congress to raise the interest rate on savings bonds to 5 percent and to remove entirely the $4\frac{1}{4}$ -percent coupon limitation on long-term U.S. Treasury bonds. Thus, action may yet be taken on the rate legislation now pending before Congressional committees.

Several indicators point up the increasing disparity which has developed between the Treasury-bond rate ceiling and actual bond-

market rates over the past two decades. Between 1949 and mid-1969, the market yield on prime corporate bonds jumped from 2.66 to 6.98 percent, and the market yield on existing Treasury bonds rose from 2.31 to 6.05 percent—while the ceiling rate on new Treasury issues remained at 4.25 percent throughout. Over the same time-span, the average rate paid to depositors in savings-and-loan associations jumped from 2.40 to 4.67 percent—while the rate paid to holders of savings bonds rose only from 2.90 to 4.25 percent, so that redemptions have exceeded sales at a \$750-million annual rate to date in 1969.



Legal legacy

The 4¼-percent ceiling is a legal legacy dating back to World War I. Prior to 1917, the Secretary of the Treasury had little discretion in managing the public debt, and every new offering of Treasury securities required specific congressional authorization spelling out the particular terms and conditions of each individual issue. But then, in view of the Government's heavy wartime borrowing requirements, Congress granted the Treasury broader power in determining the terms of Treasury issues, although it still insisted on retaining authority to set the interest rate. In three successive Liberty Loan Acts during 1917 and 1918, Congress set the maximum interest rate payable on all U.S. securities at 3½ percent, 4 percent, and 4¼ percent, respectively.

Treasury Secretary Carter Glass, anticipating further financing needs and feeling constrained by the interest-rate limitation during a period of rising market interest rates, asked Congress in 1919 to grant the Treasury more freedom and flexibility in public-debt management. Congress acceded to his request—but only in part. It removed from the statutory interest-rate limitation those U.S. marketable securities with maturities of five years or less, but still kept the 4¼-percent coupon ceiling on longer-term securities. And there it has remained ever since, although Congress recently (1967) extended the permissible maturity on Treasury securities not subject to the ceiling from five to seven years.

The Treasury first issued savings bonds in 1935, under an amendment attached to the earlier legislation governing marketable issues. The new provision enabled the Treasury to offer nonmarketable securities at a yield not to exceed 3 percent when held to maturity. The ceiling has since been raised three times, until the present 4¼-percent limit was reached.

In May 1967, the Treasury issued a new nonmarketable Government security — the U.S. savings note (Freedom Share). Since Freedom Shares mature in four-and-a-half years, technically they are classified as *notes* and are not subject to the 4¼-percent *bond* ceiling. Freedom Shares, however, must be purchased with a like amount of Series E savings bonds. When first issued, the combined E bond-Freedom Share package yielded 4.39 percent if held to maturity. But the yield on Freedom Shares was later raised (June 1968) so that the effective combined return now equals 4.54 percent.

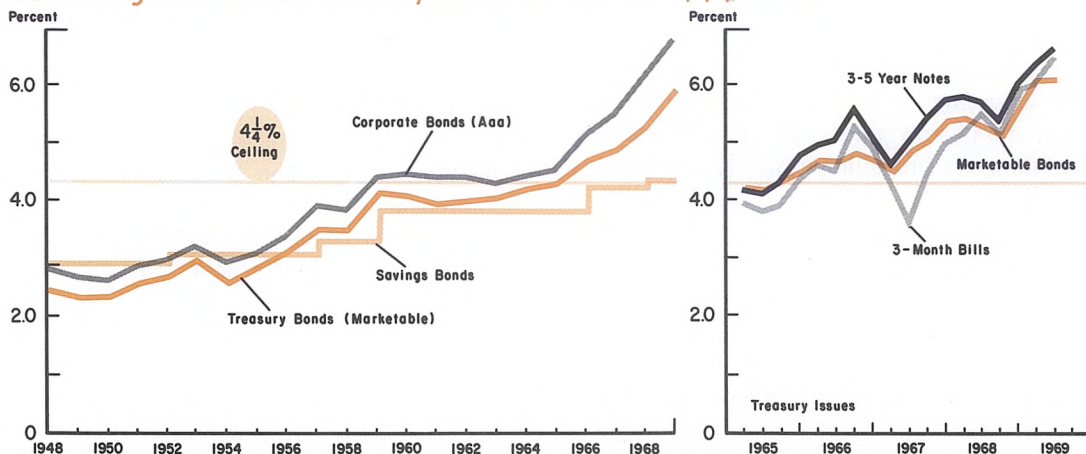
No problem—until 1959

Throughout most of its history, the statutory ceiling on long-term Treasury bonds did not pose any particular problem. Until the late 1950's, in fact, prevailing market interest rates were generally well below the 4¼-percent limit, and when they were not, the Treasury did not have any pressing need to issue long-term bonds.

During the 1920's, large budget surpluses permitted the Government to reduce substantially the huge wartime debt, and thereby precluded a need for additional bond issues. In the 1930's, interest rates were depressed because of a sizable reduction in the level of borrowing and a policy which provided a plentiful supply of money. During World War II and the early postwar period, interest rates were maintained at artificially low levels by the Treasury-Federal Reserve agreement to peg long-term rates.

During the wartime period, moreover, severe restrictions on the civilian economy helped to create a massive backlog of demand for consumer goods and services. When this pent-up demand was released with the postwar relaxation of controls, expenditures grew faster than the available supply and inflationary pressures rapidly mounted. So beginning in 1951, the Federal Reserve, in an effort to

**Market yields rise steadily over past two decades,
but ceiling rate on new Treasury issues remains at $4\frac{1}{4}$ percent**



inject an element of restraint into the economy, began cutting back on the reserves provided to the commercial-banking system. Consequently, interest rates became more sensitive to market forces, and moved almost steadily upward for the remainder of the decade, except during the recession periods of 1953-54 and 1957-58.

By early 1959, interest rates started to bump against and even to penetrate the $4\frac{1}{4}$ -percent ceiling, and so the Treasury found itself, as it finds itself today, confronted with the inability to offer any new long-term bonds. By the latter part of 1959, the battle over the relative merits and disadvantages of the statutory ceiling—whether to keep the legal ceiling, raise it, or remove it entirely—was in full swing. The verbal battle continued for a year or so, temporarily subsided in the early 1960's when interest rates edged off somewhat, but was then resumed in late 1966 when inflation threatened, monetary policy tightened, and interest rates climbed dramatically again.

An anachronism?

The critics regard the $4\frac{1}{4}$ -percent ceiling as an anachronism. When current yields on corporate Aaa bonds hover around 7 percent,

and when outstanding Government bonds yield over 6 percent, a $4\frac{1}{4}$ -percent coupon rate is obsolete. The $4\frac{1}{4}$ -percent coupon compares so unfavorably with other market interest rates that the Treasury has not offered a new marketable issue since May 1965, and instead it has been forced to rely exclusively on short- and intermediate-term borrowings to which the ceiling does not apply. As a result, the average maturity of the interest-bearing marketable public debt has dropped almost 30 percent since mid-'65.

Heavy reliance on short-term debt has inflationary implications for the economy. A short-term instrument, by definition, is never too far away from its maturity. As securities approach maturity (which they inexorably do with the passage of time), they become increasingly liquid, more and more like cash. After all, what is to prevent the holder of a maturing issue from redeeming his securities for cash, rather than rolling them over, and then placing the proceeds in inflationary spending channels?

Exclusive reliance on short-term debt inhibits the maneuverability of the Treasury in managing the public debt. As the outstanding debt becomes increasingly concentrated in the short-term area, the Treasury is forced

to undertake more frequent refunding operations. By sheer necessity, the Treasury can never be out of the financial markets for too long a time. The Treasury is thus unable to take advantage of favorable market conditions to refinance the debt, but instead is forced to borrow under whatever financial conditions are prevailing at any given time.

Policy distortion?

A continuous stream of Treasury borrowing can seriously complicate Federal Reserve credit operations, especially during periods of rapid business expansion when the Federal Reserve may be trying to reduce the growth in bank credit. Theoretically, the Treasury at such times should reduce its offerings of relatively liquid (that is, short-term) securities and issue longer-term bonds instead. However, since an expansionary, inflationary economy is one inevitably marked by high interest rates, the Treasury is trapped whenever interest rates pierce the 4¼-percent ceiling as they have today.

The Treasury simply cannot expect would-be investors to lend it long-term money at a 4¼-percent rate when investors can earn decidedly higher yields on other instruments of comparable risk. Thus the Treasury is thrust into the short-term area—the volume of liquid assets in the economy increases—and the effectiveness of Federal Reserve credit-restraint operations is thereby reduced. So with the Treasury constantly entering the market, little elbow room is left for the effective pursuit of credit policy.

As the Treasury enters the market more frequently, the probabilities are increased that heavy Treasury financing will coincide with private credit demands of a magnitude that normally calls for restrictive monetary-policy action. On some such occasions, the normal response required by monetary policy may conflict with the need to maintain sufficient reserves in the banking system to

avoid disorderly securities markets or the failure of a Government issue. In these circumstances, the flexibility required by the Federal Reserve in administering monetary policy may be limited.

Undue reliance on short-term securities clearly limits the Treasury's debt-management alternatives. The Treasury is barred from seizing the opportunity to extend the average life of what is becoming an increasingly imbalanced public debt. Our debt will undeniably endure for decades to come, so it is impractical to prevent the Treasury from borrowing funds for twenty-five or twenty years or even ten. The Treasury is precluded also from tapping some important sources of savings, since managers of life-insurance companies and corporate and pension trust funds, who are always looking for long-term (not short-term) outlets for their funds, are effectively blocked from purchasing most new Treasury issues. Thus, in the final analysis, debt management ceases to be an effective policy tool.

Rate distortion?

The critics emphasize that interest rates are basically determined by the changing forces of supply and demand. The existence of a ceiling, in itself, does not hold down actual interest rates; when the level of rates exceeds the ceiling that can be paid in a particular sector, funds stop flowing to that sector and flow around it instead, seeking the higher earnings obtainable elsewhere. Similarly, the removal of a ceiling will not result in higher levels of interest.

Interest rates on short-term Government securities, which are not subject to a statutory-rate limitation, have historically moved up and down with the business cycle. If the ceiling were indeed influential in keeping a lid on interest rates, then yields on outstanding Government bonds also should be ex-

pected to stay below the $4\frac{1}{4}$ -percent level. However, in today's open market, long-term Treasuries with unrealistically low coupon rates are discounted in price to return yields of around 6 percent. Thus, some substance is lent to the contention of Senator Hugh Scott: "No one has the wisdom to determine the proper interest rate of U.S. issues — neither the President, the (Treasury) Secretary, the Reserve Board Chairman, nor the Congress. Only the buyers and sellers of bonds can set the price in the marketplace — and it varies from day to day."

The critics further contend that by forcing the Treasury to conduct its financing exclusively in the short-term area, the ceiling in effect tends to drive up short-term interest rates to a level considerably higher than would have prevailed had the Treasury been able to enter the long-term market as well. Because the Treasury is competing for funds in such a limited sector of the maturity spectrum, many short-term borrowers — such as small businesses, consumers, and farmers — will be faced with higher interest rates when they try to borrow money. And for the same reason, the interest rate the Treasury is forced to pay on its short-term obligations may in fact be higher than the rate it would have paid had it been able to float issues in the less congested long-term sector. These arguments, however, would have to be modified to the extent that the yield structure is determined by expectational factors rather than by the market supply of debt instruments.

If the Treasury's massive short-term borrowing operations cause short-term interest rates to rise relative to rates paid by savings institutions, the troublesome problem of disintermediation may arise. Savers will be tempted to withdraw their funds from banks and savings-and-loan associations and to invest directly in higher-yielding, short-term Government securities. If the outflow of savings is large enough, the savings institutions,

the major providers of home-mortgage credit, will be forced to curtail their commitments to acquire new mortgages. The homebuilding industry thus stands to suffer considerable damage.

Price control?

The $4\frac{1}{4}$ -percent ceiling, in the critics' eyes, is nothing more than a Government-decreed price control. The arbitrary, statutory limitation is totally contrary to the fundamental principles governing a market economy, whereby prices traditionally allocate resources. History has taught us that interference with the price mechanism can only distort and disrupt the effective functioning of economic forces. The ceiling fails to recognize market realities, since in this respect the Treasury is forced to base its financing needs on economic and financial conditions which prevailed a half-century ago.

The critics claim, too, that it is absurd for Congress to repeatedly approve an increase in the public-debt limit and not raise the interest-rate ceiling at the same time. The Treasury, although given the responsibility to finance an enlarged public debt, is not provided with the requisite weapons to do so. Again quoting Senator Scott, "It is like the mother who gives her daughter an ample clothes allowance, but enjoins her from paying more than \$7.50 for a dress when the cheapest dress she can buy is \$10.00."

Yet with all that, the Treasury has been able to pursue some debt-lengthening operations despite the $4\frac{1}{4}$ -percent limitation. The first such step was the adoption of advanced refunding (1960), which permits holders of certain outstanding Government obligations that will not mature for some time the option of exchanging these holdings for new issues of longer maturity. Another such step was the recent (1967) extension in maturities, from five to seven years, of Government securities

not subject to the $4\frac{1}{4}$ -percent limit. Still, the critics argue that these measures, however ingenious, do not come face to face with the immediate problem, since they do not furnish the Treasury with the broad range of alternatives that it needs for sound debt management.

Case for the defense

As cogent and sensible as the critics' arguments undeniably are, they are not lacking a reply from the defenders of the present ceiling. But admittedly, the arguments in defense of the $4\frac{1}{4}$ -percent ceiling are considerably less numerous and perhaps less substantive than those of the critics.

The main justification for maintaining the $4\frac{1}{4}$ -percent ceiling is the assumption that it effectively keeps interest rates down. In essence, the defenders contend that removal of the statutory limitation would promptly cause other long-term interest rates to rise. In the words of Congressman Wright Patman, "If you raise the rates on U.S. Government securities, that will raise all other interest rates . . . Removing the 1918 ceiling is unwise and unwarranted . . . You cannot raise Government rates and not raise other rates."

If the average interest rate paid on Government securities were to increase, Congress would increase the cost of servicing the national debt and the consequent cost to the taxpayer. Removing or raising the ceiling is seen as casting an irrevocable vote for higher interest. Consumers, farmers, businesses and the Government will all be forced to pay more for the money they want; only the banks and the big-money moguls will stand to gain. Moreover, if the rate on Government bonds were made sufficiently attractive, investors would be tempted to take their funds out of savings accounts and put them into Government bonds—and homebuilding activity subsequently would be hampered.

Defenders of the status quo feel that the Treasury has already done harm merely by requesting removal of the ceiling. This request, they declare, will be interpreted by the market as a conviction on the part of the Treasury that even higher interest rates are foreseeable in the near future—and will thus be an invitation to the market to react accordingly.

The $4\frac{1}{4}$ -percent limitation has been on the books for a long time, the defenders point out, and it has provided a desirable element of Congressional control over Treasury financing. Moreover, what if interest rates should decline? By paying a higher rate on bond issues at this time, the Treasury would be obligated to these high rates for many years. The Treasury should wait until rates decline somewhat before considering any long-term financing. And even if Congress were to remove the ceiling, the Treasury probably would not, under present market conditions, offer any large volume of long-term securities, because of fear of overburdening that segment of the market. So, the defenders ask, why all the fuss?

It is now up to Congress to assess the contending arguments and decide on the appropriate ceiling rate—if any—on the Treasury's marketable bonds and savings bonds. The legislators could decide to retain the present ceiling, because of a laudable desire to check the growing cost of financing the Treasury's debt, or because of an impression that ceilings on rates do, indeed, keep interest rates low. But they could just as well decide to lift the limit completely, because of the greater logic of the argument that ceilings are as likely to raise as to lower the actual interest rates paid in the nation's financial markets. Money after all, tends to be like water, in that it flows round the obstacles placed in its path.

Karen Kidder

Putting Money into Bonds

After a third of a century of glancing at billboards, reading magazine ads, and listening to TV commercials, Americans have become readily familiar with the message, "Buy U.S. Savings Bonds." Their response has varied over the years, depending on the strength of their patriotic desire to assist wartime financing or their personal desire to participate in a systematic savings plan—or, as in the present instance, depending on their willingness to keep savings in this form when they can get a higher return on their money elsewhere. But, although most individuals have become well aware of the program in this sense, relatively few realize the still enormous magnitude of the program or its still significant role in the nation's financial system.

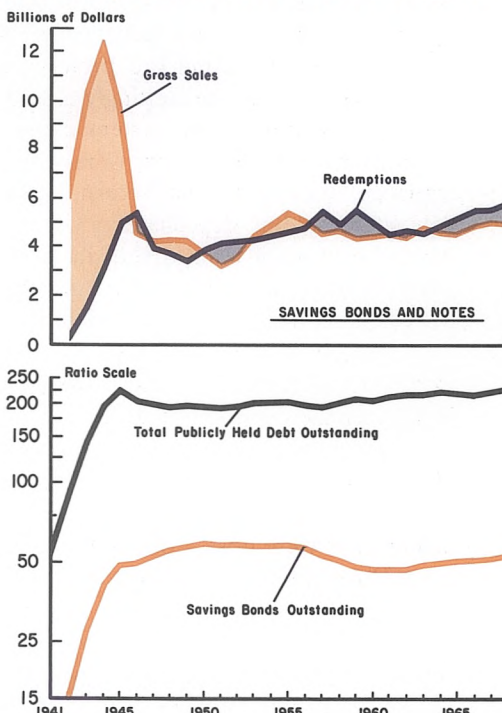
The greatest interest in savings bonds developed during World War II—in 1944, the popular Series E bond posted gross sales of \$12.4 billion and redemptions of \$3.0 billion. In the postwar period, however, gross sales and redemptions have both moved within a narrow range of \$3 to \$5 billion—in 1968, the figures were \$5.0 billion and \$4.9 billion, respectively. (The figures include the new Freedom Shares as well as the standard Series E and H bonds.) Total outstandings are now over \$52 billion—about 10 percent below the end-1950 peak—and savings bonds thus account for almost one-fourth of the \$229-billion publicly held Federal debt.

What they buy

From the individual saver's viewpoint, savings bonds differ significantly from Treas-

ury marketable bonds. Their price never fluctuates; savings bonds are always redeemable at a price fixed in advance by the Treasury. Their interest rate never declines; in fact, when the Government decides to raise rates to attract more lenders, it raises rates on previously issued bonds as well. Moreover, the interest rate increases as a bond matures; the typical Series E bond pays 2.24 percent if redeemed at the end of a half-year, but it pays 3.75 percent when held for three years and 4.25 percent when held to maturity of seven years—and after ma-

Savings-bond program remains relatively stable after World War II



turity it continues to earn the last and highest interest rate.

From the viewpoint of the borrower, the Federal Government, savings bonds also differ to some extent from Treasury marketable bonds. With marketable bonds, the Government generally borrows large amounts from a fairly small number of large institutions. When the Government decides how much it requires, it sets the terms on each issue with an eye towards current market conditions, and it does not pay off its bonds until they mature or are refunded. (Individual purchasers of course can resell in the open market.) But with savings bonds, the Government usually borrows small amounts from large numbers of individuals. More important, savings-bond transactions are not

subject to close control; when the Government sets the terms, it cannot be certain how much the individual will buy, nor how much (or how soon) he will redeem for cash.

Towards the wartime peak

Although the present savings-bond program dates back to the early days of World War II, its roots can be traced farther back to the Second Liberty Bond Act of 1935, or even to the Postal Savings Act of 1910. Around the turn of the century, Americans were not blessed as they are today with a wealth of reliable banking services, and many people consequently were convinced that depositing savings in the average financial institution was a form of Russian roulette

Demise of the Immigrants' Bank

The millions of European immigrants and American farmers who poured into U.S. cities around the turn of the century were anxious to find a safe place to bank their earnings, so in 1911 the U.S. Government established the Postal Savings System in order to meet their needs. But the children of that generation in recent years have shown a marked preference for banks and other financial institutions, and the Government accordingly closed the postal savings window two years ago.

The heyday of the system came during the Depression and World War II, when prospective depositors were won over by the combined appeal of safety, convenience, and a 2-percent return. In 1947, the peak was reached with 4.2 million depositors holding deposits of \$3.4 billion. But the system thereafter ran downhill; when the window banged shut in June 1967, only about 600,000 depositors were left, and their accounts totaled only about \$60 million. In fact, almost one-third of the accounts then on the books had been inactive for 20 years or more.

The postwar decline came about as the original advantages of the system were matched or exceeded by those available elsewhere. Safety was no longer a factor, in view of the adoption of deposit insurance by commercial banks and savings-and-loan associations. Convenience too was no longer a factor, in view of the extension of banking hours and the availability of bank-by-mail services. And the 2-percent deposit rate lost its attractiveness, especially during the present decade, as sharply higher rates were posted on bank deposits, S&L shares, and savings bonds.

Throughout its history, most postal-savings depositors were city dwellers rather than rural or small-town inhabitants. First-class post offices handled almost 85 percent of total deposits two decades ago—and almost 95 percent of total deposits in the final years of the program. The smaller post offices in outlying areas handled only a small portion of the total business during this period.

—but without the usual peaceful prospect of eternal bliss.

Widespread agitation arose to protect the little man from the vagaries of financial fortune, expressed for example in the platform of the little man's party—the Populist Party—as early as 1892. Eventually Congress acquiesced in these demands by making it possible for individuals to save through the U.S. post office, and it thereby permitted individual savings to act as investment funds rather than mattress stuffing.

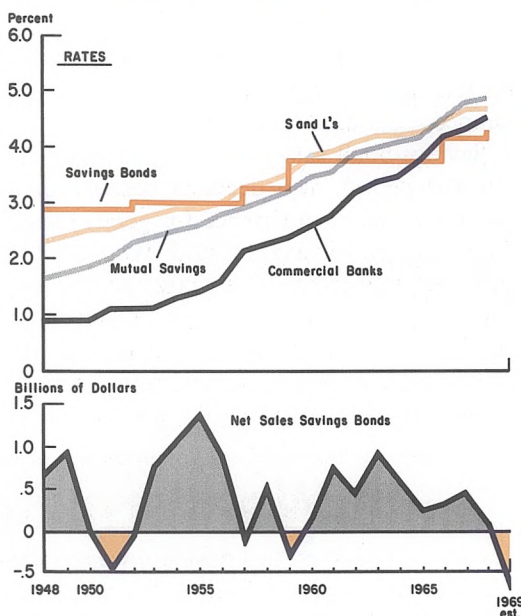
One form of postal savings, the postal savings bond, was discontinued in 1935 and replaced by the U.S. savings bond. This new savings instrument was made available for sale at post offices, was immediately redeemable, and carried the full credit of the U.S. Government. This new instrument thus dramatized safety, since it provided a safe place for individual holdings when faith in other financial instruments had all but collapsed.

The savings bond also dramatized preferential treatment for the small saver. He could count on a 2.9-percent rate if he held the bond to maturity—a significantly higher rate than was available on other instruments at that time. To emphasize the program's small-saver orientation, the Treasury offered higher yields on the series aimed at small savers than on other series of bonds, and it also set a ceiling on the amount that could be sold annually to any investor.

Because of the depressed conditions of the 1930's, initial sales of the U.S. savings bond were less than startling. With the war-time prosperity of the 1940s, however, the savings-bond program reached its full maturity.

Seeing the anti-inflationary possibilities of a program that could channel substantial amounts of war-inflated incomes out of the spending stream, the Treasury moved aggressively to sell savings bonds, not only through the post office but also through banks and payroll-savings plans. The bond drives

Investors reduce bond holdings as attractive yields appear elsewhere



of this period were fantastically successful; outstandings jumped from \$6 billion in 1941 to \$48 billion in 1945, and eventually reached a peak of \$58 billion in 1950.

Down from the peak

Savings bonds have never since reached such a high level of popularity. Although outstandings have actually increased during the present decade after drifting downward during the previous one, they now account for only about 8 percent of publicly-held liquid assets as against 23 percent in 1946. To a large extent, this reflects the fact that the individual now has considerably more attractive (and legal) outlets for his funds than he had during World War II.

This development also reflects the fact that other savings instruments are now considerably safer than they used to be, and offer a higher return as well. Although savings-bonds rates have risen, rates on other instruments have increased even faster, so sales of

savings bonds have gone down while redemptions have gone up. Over the postwar period, the average rate of return on savings bonds held to maturity has risen from 2.90 to 4.25 percent, but the rate on one competitive instrument, savings-and-loan shares, has jumped from 2.20 to 4.67 percent.

Savings-bond sales, especially in the early postwar period, also declined because of a strong consumer preference for goods rather than savings. During World War II, the sales attractiveness of savings bonds was aided by the overall shortage of consumer goods as well as by patriotic motives. As these factors weakened in the postwar period, households helped to fuel the postwar infla-

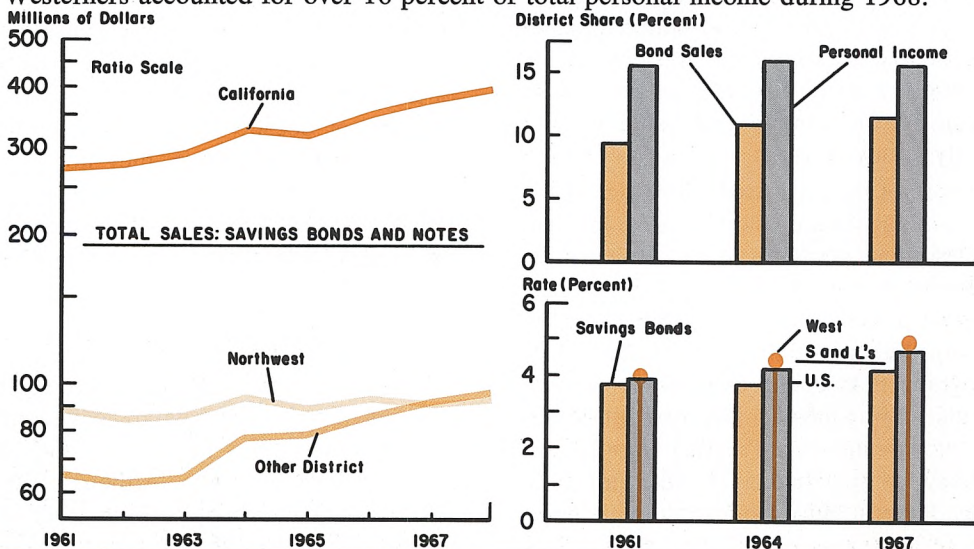
tion, not only by reducing their savings rate but also by cashing in their bonds for consumption purchases. The ease of bond redemption, which had been considered essential for the purpose of attracting small savings, was thus something of a hindrance during the inflationary episodes of 1946 and 1950—and 1969.

Combating the decline

The Treasury has taken several steps in the last several years to obtain the small investor's cooperation in its specific task of financing Government operations and in its more general task of fighting inflation. First of all (May 1967), the Treasury introduced

Western Bond Program

The West has posted a weaker-than-national bond sales performance in recent years, perhaps reflecting the wider gap between savings-bond rates and rates on competitive instruments in this region. Western banks and savings-and-loan associations have consistently offered higher returns on savings instruments than their counterparts elsewhere, while savings-bond salesmen of course have offered the same rate nation-wide. So while individual Western savers deposited substantial amounts of savings in Western financial institutions last year, they purchased only \$586 million in savings bonds, or less than 12 percent of the U.S. total. In contrast, Westerners accounted for over 16 percent of total personal income during 1968.



a new and higher-yielding instrument into the savings-bond program.

The U.S. savings note (Freedom Share), of which \$494 million worth were sold in the first two years of operation, is actually a short-term savings bond, although it differs in some respects from the popular Series E bond. It pays 5 percent after four and one half years instead of 4.25 percent after seven years. Moreover, it is only purchasable with an E bond of equal denomination—so that the effective rate of the two together is lowered to 4.54 percent at maturity. Also, to emphasize the Freedom Share's intended role as an anti-inflationary weapon, each note must be held for one year before becoming eligible for redemption.

Then, as already noted, the Treasury asked Congress this July for legislation to permit the payment of a 5-percent rate on regular savings bonds which are purchased after June 1 and are held to maturity. (Bonds cashed in prior to maturity would also earn higher rates than they do now.) In the proposed legislation, the original maturity of the Series E bond would be shortened to five years ten months from the present seven years, while the Freedom Shares would continue on sale for a six-month transition period. This Treasury proposal would make savings bonds competitive once again, in terms of rates, with other savings instruments, but for that very reason it has aroused opposition from savings-and-loan associations and other segments of the financial community.

Marketing effort

The marketing of savings bonds and savings notes involves the cooperation of a number of public and private agencies. The advertising industry, for instance, contributed \$62 million in services in 1968 to disseminate the savings message through publications, radio-TV, and mass-transit ads. Many national and regional corporations conduct their own bond-sales campaigns, and some

16,000 banks and other financial institutions maintain special windows to sell and redeem bonds. For its part, the Treasury spends on bond-sales administration the bulk of the total amount required to administer the entire public debt, aside from interest payments themselves.

Business firms participate in this program for a number of reasons. Patriotic and public-service motives, of course, are important. In particular, TV and radio stations are expected to carry some public-service ads, in light of their function to operate in "the public service, convenience, and interest."

Business firms also promote savings bonds for personnel reasons. Corporations utilize bond sales in conjunction with employee savings-and-pension plans, and frequently they promote bond sales as a thrift measure because they consider that savings-conscious employees are better employees.

Commercial-bank role

Commercial banks are also active promoters of the savings-bond program. They sell and redeem bonds at tellers' windows. They offer both payroll savings to employees and savings plans to customers (through deductions from savings accounts), and they often handle the accounting and inscription work on bonds sold through business payroll plans. Substantial bank participation of this type provides services both to business firms and to the Federal Government.

The bank service to business naturally brings in deposits. The handling of large payroll-savings accounts can be costly, but the earnings made by banks on such deposits are frequently sufficient to cover handling costs. Besides, the services offered in handling payroll savings can be useful in attracting new business deposits.

The bank service to customers does not necessarily bring it more business, since U.S. savings bonds compete with credit instruments offered by the banks themselves, such

as savings certificates and passbook-savings deposits. However, to the extent that savings bonds do not compete—that is, to the extent that savers intend to save a certain amount in bonds anyway—bank handling of bonds is useful for attracting new business. For that matter, some of these handling costs are borne by the Treasury, which reimburses banks 10 to 15 cents for every bond redemption. (Total reimbursements in fiscal 1968 were over \$13 million.)

The cost to banks of performing services for the Treasury is partly offset by the gain from TT&L accounts — Treasury tax-and-loan accounts. These deposits, which are the repository of the large balances accumulated from public tax payments and loan subscriptions, can be quite profitable to banks.

Who buys bonds?

There remains the individual bond-buyer, the customer around whom the entire program revolves. To what extent is he influenced in his purchase and redemption decisions — aside from patriotic motives and general consumption-savings considerations — by considerations of safety, liquidity, taxes, and interest return?

Savings bonds, of course, offer complete safety of principal as well as easy redeemability. Over the years their stable value and guaranteed return — and a return which has been raised on several occasions — have proved attractive to certain classes of savers, and this attractiveness has been sufficient to overcome the tax and yield advantages offered by other instruments. The conservative saver who wants to be sure of his investment will always find a useful haven in savings bonds.

Savers in high tax brackets, who are interested more in tax savings and after-tax yield than in security or liquidity, often prefer municipal bonds to savings bonds. The latter offer certain tax advantages — exemption from state taxes and deferral of Federal taxes

until redemption. But in view of the relatively low level of state tax rates and the Federal tax exemption on municipal bonds, tax considerations do not make savings bonds especially attractive to high-bracket individuals.

Savers primarily influenced by yield considerations have tended, in the recent past, to ignore savings bonds in favor of such alternative instruments as S&L shares and bank savings deposits. After all, the latter instruments are also safe, since savings institutions are insured and regulated, and they are liquid as well, since prior-withdrawal notices are not enforced. Even in the short run, they offer a higher yield than savings bonds—a higher yield, say, than the combined E bond-Freedom Share rate of 3.57 percent after one year. It is this consideration, of course, which has led the Treasury to propose lifting the rate ceiling on savings bonds.

The small saver nevertheless remains the best target for savings-bonds promotion. In fact, over half of the total volume of sales is made through payroll-savings plans geared to the small saver. (Participation rates in individual firms vary from 1 to 100 percent, with an average participation rate of roughly 25 percent.) The only major drawback to this type of marketing is in the high rate of redemption, since, in some recent years, roughly half of the small-denomination bonds have been redeemed in the first year after purchase.

Despite the present disadvantage in rates, savings bonds continue attractive to many savers—witness the \$52 billion in bonds now outstanding. For reasons of safety, liquidity, and, not least, patriotism, millions of small savers will continue to participate in this major savings program. And, assuming approval of the Treasury's proposal for an increase in rates, the worrisome trend in bond redemptions should be reversed.

Arthur Darling

Western Digest

Alaska Opens Oil Bidding

Alaska sold \$900 million in oil leases — the largest such sale in history — for 451,000 acres of petroleum-rich Arctic land on September 10. Contracts will run for ten years on the leases, which cover about one-third of the state's total holdings in the North Slope area. Alaska, moreover, will obtain 12½-percent royalty payments on the leases. . . . About \$180 million in deposit checks on the bids were flown immediately from Anchorage to New York and other financial centers, to permit immediate cashing and investment of the proceeds. Under state law, proceeds from the leases can be invested only in U.S. Government securities.

Farm Output to Decline?

Farm experts expect a slight decline in Western field-crop output this year, mostly because of a sharp 11-percent drop in wheat production. Cotton production may fall slightly, reflecting a lower level of yields rather than any cutback in acreage. . . . Output of processing vegetables may drop more than 20 percent, because of a sharp cutback in tomato production, while output of fresh summer vegetables may also decline, but by a far smaller amount. Production estimates for deciduous fruits, however, indicate an 11-percent increase over last year's harvest. Substantial increases are expected for apples, cherries, apricots, peaches, pears, and grapes.

Pacific Air Fares to Decline

American, Japanese, and British airlines agreed on an 8-percent reduction in Pacific passenger fares (subject to Government approval), beginning this October. . . . A round-trip tourist ticket between New York and Tokyo will now cost \$879, down from the present \$960, for the summer peak period. However, the airlines will also offer lower fares for offpeak periods, including a new round-trip group fare of \$600, effective next January.

Lumber Prices Stabilize

An improved inflow of orders and a stable level of production permitted the Northwest lumber industry to halt its severe four-month-long price decline in mid-summer. But despite the August upturn, ranging as high as \$7 per thousand board-feet for Douglas fir lumber and as high as \$9 per thousand square-feet for sanded plywood, prices in both categories remained well below levels prevailing a year ago. . . . The industry's price outlook is still clouded by the relatively bleak short-term prospects of the residential-construction industry. On the supply side, moreover, the processing of perhaps 5 billion board-feet of timber blown down by Hurricane Camille should also depress prices somewhat.

Financing the Business Boom

The financial system in recent years has been faced with the task of supplying a record volume of funds to finance record levels of corporate investment. Business investment needs have resulted in a series of new peaks in financing activity. But in attempting to meet its goals, the corporate sector has had to bid away funds from others, and this has been accomplished only with increasing difficulty and cost. Thus, strains have appeared in the financial system — evidenced by a record rise in interest rates and by a slowdown in the investment growth rate.

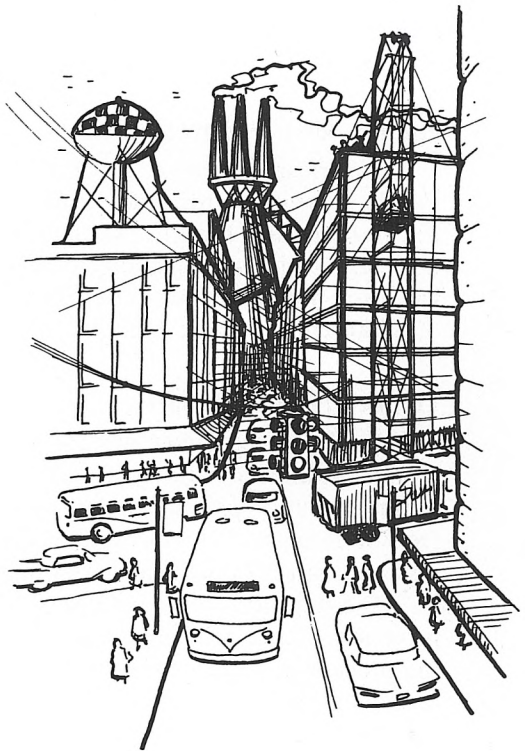
Private investment expenditures have played a key role in the massive expansion of the economy since 1961. New investment in plant and equipment — and in residential housing and inventories — has both sustained and reacted to the growth of the national economy. Larger investment has helped stimulate economic activity, and greater economic activity in turn has stimulated more investment. The success of previous investments has reinforced optimistic expectations, and the pressure on existing capacity has justified further investment. Altogether, between 1961 and the first half of 1969, a 78-percent increase in GNP was accompanied by a 92-percent increase in private investment, from \$72 billion to \$137 billion per year.

Prior to 1965 — the dividing point of the decade in more ways than one — the economy was recovering from the minor recession that ended in 1961. Some slack still existed in the economy, and new investment was being financed with little trouble. But by late 1965, demand was beginning to press upon productive capacity. Continued heavy

investment demand was now competing not only with private consumption but with increased spending by government, primarily defense spending, but also state-and-local government spending. The following article concentrates on investment by non-financial corporations, whose capital expenditures make up approximately four-fifths of gross domestic investment.

Business needs

Until 1965, the increase in business investment spending had been gradual. Non-financial corporations increased their capital expenditures from \$37 billion in 1961 to \$54



billion in 1964. Then, in the latter part of 1965, the rate of corporate capital spending picked up. The biggest jump was centered in the plant-and-equipment component. This category alone jumped by \$8 billion in that year, and repeated with an \$11-billion increase in 1966. With expenditures on residential construction and inventories added in, total capital expenditures by non-financial corporations reached \$64 billion in 1965 and \$81 billion in 1966.

This pace was not sustainable, and in 1967 the level fell back to \$75 billion. There was a recovery in 1968, when corporate capital spending returned to \$79 billion for the year as a whole. For the last quarter of that year, expenditures ran at an even higher pace as business investment accelerated again, and new records were marked up in the first half of 1969.

By the second quarter of 1969, capital expenditures were at a \$90-billion annual rate, over \$10 billion above the rate in the same period of the preceding year. As in the 1965-66 upswing, plant-and-equipment expenditures led. Spending in this category jumped from \$66 billion to \$77 billion (annual rates) between second-quarter 1968 and second-quarter 1969.

It is clear that the expansion of capital spending by non-financial corporations was not consistent over the whole period of expansion. It moved somewhat unevenly, with the biggest expansions being concentrated in two periods, the first occurring in 1965-66, and the second beginning in mid-1968 and continuing to the present. It is also clear that expenditures on plant and equipment made up the dominant element in these expansions.

Of the other categories of corporate capital expenditures, spending on residential construction was the least important. Beginning in 1961, this rose steadily from \$2 billion in 1961 to an annual rate of \$4 billion in the second quarter of 1969, with the year-by-

year changes always being less than \$1 billion.

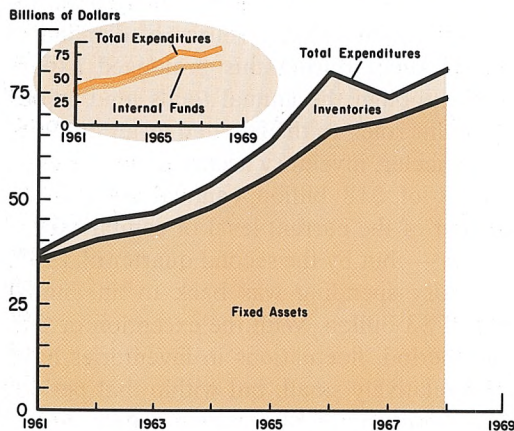
The remaining category, changes in inventories, was the key source of demand at certain times during this prolonged expansion, although the annual totals tend to obscure this role. In the fourth quarter of 1966, in particular, inventory accumulation reached a peak of \$18 billion (annual rate) — 21 percent of the current level of capital expenditures — but by the second quarter of 1967, inventory spending was back to an annual rate of \$3 billion. With the exception of that brief period, fluctuations in inventories have been relatively small, but within that period, they were definitely a major source of instability.

Business funds: internal

Record levels of capital expenditures in turn imply record levels of financing, and it is on the financing side that the strains have been clearest. Corporations normally can count upon financing the larger part of their capital expenditures from internal sources, that is, retained earnings plus depreciation allowances. Some corporations are able to finance all their needs internally but, in the aggregate, corporate investment usually exceeds the volume of internal funds, so that corporations must rely to some extent upon external sources as well.

In the first half of the decade, internal sources were sufficient to supply about 94 percent of non-financial corporations' capital expenditures. With the acceleration of the rate of investment, however, the gap between capital expenditures and internal funds widened rapidly. In 1965, the percentage of capital spending financed internally was 88 percent and in 1966, 76 percent, as capital spending outran internal funds. Over the next two years, as the rate of investment slowed its climb, the percentage internally financed varied between 80 and 82 percent. Then with

Corporations' flow of internal funds fails to match investment needs



the resurgence of capital expenditures in late 1968, the gap again widened, so that internal sources were only able to supply 70 percent of total capital spending in the second quarter of 1969.

This decline in the share of investment supported by internal funds was not due to any general decline in internal funds. In 1964, corporate retained earnings and depreciation allowances totaled \$51 billion; by 1968, they totaled \$63 billion, or 24 percent higher. But a 24-percent increase in such funds was far from sufficient to meet corporate needs. A glance at the two types of internal financing may indicate some of the difficulties.

Capital consumption (depreciation) allowances provide the largest source of internal corporate funds. These allowances depend upon the previous level of corporate investment, which determines the size of the potential capital stock that can be depreciated, and they also depend upon tax laws, which set limits on the rates of allowable depreciation. Therefore, the steady growth of plant-equipment spending increases depreciation allowances. (In 1961, they were \$25 billion; in 1965, \$35 billion; and in 1968, \$44 billion.) Generally they have grown at a steady pace,

around 7 percent each year prior to 1965 and from 8 to 9 percent thereafter. In addition, the Federal government has shifted the amounts allowed under the tax laws in an attempt to influence depreciation and in turn investment. These efforts have produced some changes, but nevertheless year-by-year fluctuations have been quite small except in the beginning of the decade.

Depreciation allowances generally have varied between 71 percent and 63 percent of total internal funds. But this variation is attributable primarily to the quite volatile fluctuations in the other component of internal funds, net retained profits.

The volume of retained corporate profits depends, first of all, upon gross (before-tax) profits, and then on the level of corporate income taxes. The final element in determining the amount of retained earnings is the proportion of after-tax profits paid out in dividends to shareholders. Each of these factors must be examined in turn to explain the sharp fluctuations in retained profits.

Profits before taxes increased in line with the growth of the economy in the early part of the decade, and then accelerated with a \$6-billion gain in 1964. They then grew further in the two following years, with a record \$8-billion increase in 1965 and a further \$6-billion gain in 1966. The upward trend was broken in 1967 when gross profits fell \$4 billion, but the upward movement was resumed in 1968 with a \$7-billion gain.

Changes in Federal corporate-tax rates have had a definite impact on the flow of internal finance. With the passage of legislation reducing Federal income taxes, the percentage of gross profits taken by taxes fell from approximately 47 percent in 1963 to below 44 percent in 1964. As a result, some \$2 billion was freed from tax payments and became available for corporate expansion.

The imposition of the surcharge on corporate profits and personal incomes reversed

that gain, so that corporations in 1968 became confronted again with pre-1964 style tax levels. Thus the percentage of gross earnings going to corporate-profit taxes increased from 43 percent in 1967 to over 48 percent last year. The new taxes absorbed almost \$4 billion in funds in a year when corporate investment was going up by \$6 billion.

The third element in this picture is corporate dividend policy. The usual pattern is for dividends to reflect fluctuations in profits with some time lag: dividends are increased only after a new higher level of profits is well-established, but then when profits fall, dividends are lowered only with reluctance. This lagged response is evident, for example, after the 1964 jump in profits and the later decline. The percentage of after-tax income going to dividends fell from 49 percent in 1963 to under 43 percent in 1964, and it remained near that level until 1967. Then the ratio jumped to 46 percent, and it rose again in the following year to 50 percent — at which point the ratio was back to what it was in the recession year of 1961. In 1969, the percentage of after-tax profits paid out in dividends rose even further, reaching 55 percent in the second quarter of the year.

As a consequence of these various trends, net retained earnings helped stimulate the mid-decade upsurge in investment, since corporations had a greater flow of internal funds available for a time. Between 1964 and 1966, retained profits supplied 35 to 37 percent of internal finance, compared with under 30 percent in the early '60s. Then in 1967, as gross profits slipped and as dividend payments continued to rise, this source provided only 33 percent of internal funds. In 1968, with the imposition of the surcharge, retained profits fell even further to 30 percent of internal funds, and by second-quarter '69 the ratio slipped some more to 25 percent.

By previous standards, the increases in the dollar amount of internal funds in 1965 and

1966 would have been more than sufficient to meet non-financial corporations' needs, but they turned out to be insufficient because of the still more rapid increase in capital expenditures. The result was heavier dependence upon external funds as the gap widened between capital expenditures and internal sources of funds.

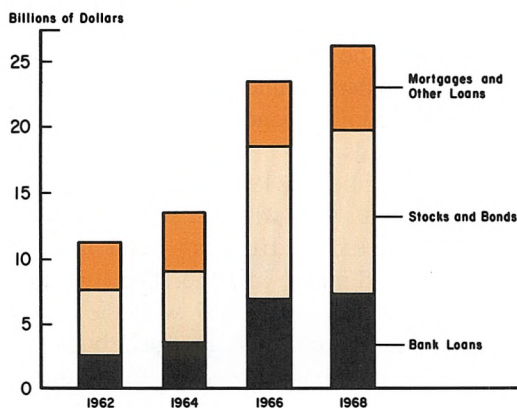
From \$2 billion in 1964, the gap widened to \$8 billion in 1965 with the acceleration in investment expenditures — and it then jumped to \$18 billion in 1966. The situation improved somewhat in 1967 with the slowdown in investment, but sluggish business also meant a fall in profits, so that capital expenditures remained some \$14 billion above the amount provided by internal sources. Demands for external funds then jumped in 1968-69 as investment picked up and as internal sources failed to meet financing needs; in 1968 the difference was \$16 billion, and the situation was even worse in 1969.

Business funds: external

As capital expenditures outran internal funds, the obvious result was heavier reliance upon external sources. Although external funds may pay for other things than capital expenditures — for example, the accumulation of financial assets for liquidity or income — the link between the capital-expenditures deficit and the volume of external financing is apparent.

Between 1961 and 1964, when capital expenditures were still rising slowly, the deficit never accounted for more than 27 percent of net external funds raised by nonfinancial corporations. In other words, the bulk of new outside funds went toward the acquisition of various financial assets. But after 1965, the situation changed. In the next four years, the capital-expenditures deficit accounted for an average of 58 percent of total external financing, and in 1966, the year of the monetary "crunch," it absorbed 83

Businesses rely heavily on external sources of funds



percent. In first-half 1969, another period of heavy financial demands and heavy capital expenditures, the deficit averaged 76 percent of a record level of external financing.

The other side of the coin is a substantial jump in the dollar volume of external financing. Between 1961 and 1964, total external funds raised in each year varied from a low of \$9 billion (1961) to a high of \$13½ billion (1964). Thereafter, the dollar volume climbed rapidly; in 1965, external funds jumped to \$19 billion, and in 1967, they reached \$28 billion. After a decline in 1968 to \$26 billion, the volume averaged \$37 billion (annual rate) in the first half of 1969. It is thus clear that the rapid growth of capital expenditures since 1965 has been the principal factor behind the increased corporate reliance upon external sources of finance.

Not only has the total volume of external finance increased sharply over the period 1965-69, but the pattern of external sources has also shifted. Bank borrowing (exclusive of mortgages) has become more important and has remained a major source of funds into 1969. To begin with, bank loans jumped from under \$4 billion in 1964 to over \$9 billion in 1965, and came to represent the largest single source of external funds in that

year. Bank borrowing still remained heavy in 1966, at \$7 billion, despite the tightening of monetary policy — and in 1967, at \$5 billion, despite greater corporate reliance upon direct issues of securities. And of course the pace was again heavy later on, with \$7 billion in bank borrowing in 1968, and an average annual rate of \$9 billion in the first half of 1969.

Overall, the principal means of raising funds has been the issue of new corporate bonds in the capital markets. (Issues of common stock have been of relatively minor importance.) In 1965 net bond issues were at \$5 billion. They then doubled in 1966 to \$10 billion, despite a restrictive monetary policy, and with the easing of interest rates in 1967, they rose to \$15 billion. Then, after a slight decline in 1968, bond sales were running at a heavy \$12-billion rate in early 1969. In brief, since late 1965 corporations have met almost 50 percent of their external financing needs through bond sales.

In terms of gross proceeds from bonds, the upward trend is even more striking. In 1965, the total amount of new corporate (including financial) bond issues totaled \$14 billion, and in 1967 it reached a peak of \$22 billion. By 1968, gross proceeds reached \$17 billion, and in the first half of 1969, they totaled over \$9 billion.

New gross issues of common and preferred stock have also been rising. In 1965, these totaled just over \$2 billion. In 1968 they approached \$5 billion, and they amounted to \$4 billion in the first half of 1969. However, many of these new stock offerings were used to replace existing stock and, on a net basis, their actual importance was much smaller than the gross figures indicate. Still, the same can be said of bond proceeds. A rising proportion of new bond issues were convertible into common and preferred stock and therefore were potential stocks and not purely debt instruments. In the past two years,

approximately one fifth of bond proceeds were in convertible issues.

Net financing through stock issues amounted to \$1 billion or less in every year of this decade except 1967 — and in 1968, in fact, there was net retirement despite a record gross volume of new stock issues. Thus, as a net source of external finance, stocks have been relatively unimportant in most years.

In the search for new sources of funds, corporations have begun to exploit an old yet relatively neglected type of debt instrument: commercial paper. Commercial paper is simply short-term unsecured debt. The unsecured nature of this security has restricted its use in practice to prime borrowers — borrowers with a minimal risk of default — so that commercial paper tends to be issued mainly by the larger corporations. For these corporations, the issuance of paper through dealers has become an attractive alternative source of funds, especially as corporations find bank finance both increasingly scarce and increasingly expensive. (Financial corporations usually issue their commercial paper directly). Altogether, commercial paper has provided an additional \$1 to \$2 billion a year since 1965, or more than double the amount raised through stock issues.

Overall, the expansion of business investment financing has relied heavily upon outside debt financing, not new equity. The principal sources have been corporate bonds, bank loans, mortgages, and commercial paper, in that order. With this heavy dependence upon the financial markets in a period when the economy is operating near full capacity and when governments and consumers are also competing strenuously for funds, the costs of such financing — that is, interest rates — have reached record-high levels.

In the first half of 1969, corporate Aaa-rated bonds were bearing yields above 7 percent; prime commercial paper went above

8 percent; and the bank prime rate reached 8½ percent. To some extent, these rates represent some allowance for inflation by lenders, but for the most part they are the result of and are a measure of pressures on the financial markets.

The long-term corporate bond rate is perhaps the most satisfactory indicator of the link between financial pressures and investment expenditures, since it is less influenced than others by short-term money-market disturbances. This rate had remained relatively unchanged in the early part of the decade, and only began to creep upward in the last half of 1965. The initial upswing of rates peaked in late 1966, as restrictive monetary policy took hold and as the pace of domestic spending slowed. The corporate Aaa-bond rate on new issues touched 6 percent in September 1966, declined somewhat in early 1967 as the business situation eased, but then began to climb again — and, except for another pause in late 1968, climbed sharply until passing the 7½-percent mark in the first half of 1969.

Still, there was no immediate slackening of borrowing, as corporations accepted these high interest rates as the necessary price of carrying out their investment plans. The need to expand capacity, the expectation of increasing profitability, and the fear of inflation apparently made these rates an acceptable price for obtaining external funds.

Managing corporate funds

To finance their capital expenditure programs, corporations have been forced to develop new sources of finance, but they have also turned to economizing on the funds immediately at their disposal. One alternative has been to reduce the proportion of capital going to inventories; the other has been to reduce the amount of funds allocated to financing day-to-day operations, that is, the liquid assets of the corporation.

FEDERAL RESERVE BANK OF SAN FRANCISCO

As for the first, businesses have moved toward reducing inventories relative to their sales. The inventory-sales ratio for all businesses had shown a falling trend at least to 1965, when it reached a low point of 1.43, and then a reversal until 1967, when it reached a figure of 1.56. But by mid-1969, the inventory-sales ratio was at 1.52 — the same level recorded in 1962. Since there were no long-term reductions in the relative size of inventories, corporations have not been able to economize on funds allocated to inventories.

On the other hand, corporations have succeeded in reducing their inventories of *financial* assets. They have reduced the proportion of their resources held in liquid assets, and they have also begun to manage their assets more effectively to maximize the yield on them.

For some time, corporations have been cutting back on the amount of assets tied up in liquid assets. This trend reflects improved management techniques and attitudes, but it also reflects the pressure of money costs, which has intensified their efforts to reduce liquid assets towards the minimum essential for day-to-day operation. Corporations have increased their total financial assets, of course, but they have increased their liabilities even more, and the result has been a steady fall in corporations' liquidity positions. This trend had become apparent before the boom of the mid-decade. Between 1961 and 1965, the ratio of liquid financial assets to total liabilities dropped from 24 to 20 percent. Moreover, this liquidity ratio has continued falling, until it reached 16 percent in mid-1969. With their difficulty in raising funds, corporations have obviously concentrated on using efficiently whatever financial resources have been at their disposal.

These efforts to manage liquidity positions more efficiently have shown up also in a

changing mix of assets, reflecting the response of corporate treasurers to changing yields. The most obvious change has been not just a reduction in the dollar volume of liquid assets, but also a decline in the proportion of such assets held in currency and demand deposits. In 1961, cash and demand deposits stood at \$34 billion and were 55 percent of all liquid assets; by the end of 1965, they totaled \$28 billion and were 40 percent of liquid assets. But the incentives to conserve on cash assets have since intensified even further, apart from the temporary period of cash accumulation which followed the 1966 monetary "crunch." By June 1969, currency and demand deposits were down below \$27 billion and were no more than 35 percent of total liquid assets.

Corporations have been able to conserve on cash partly because of the growth of suitable alternative assets. Foremost among these has been the large-denomination certificate of deposit, the bank CD. With this alternative available, corporate treasurers have shifted funds which were previously in demand deposits into the time-deposit category, thus obtaining both a high rate of interest and an individual tailoring of maturities.

Corporate time deposits thus have grown steadily, both in dollar amounts and in relative terms. As recently as 1961, corporate time deposits were below \$5 billion, but by 1965 they were \$19 billion—exceeding corporate holdings of Treasury securities for the first time—and by the end of 1968, they reached a peak of \$25 billion, or 31 percent of corporate liquid assets. By mid-1969, however, the corresponding figures dropped to \$20 billion and 27 percent, respectively, reflecting a combination of financial pressures and interest-rate ceilings on CD's below those available on alternative investments.

Another alternative has been developed through the rediscovery of the commercial-paper market. In the last several years in

particular, more corporations have turned to the issue of commercial paper to finance their needs, and more corporations have been buying commercial paper instead of CD's. Throughout most of this period, the yield on commercial paper has been regularly above the CD rate, and also above the rate on equivalent Treasury securities. Before 1965, there had been a small rise in corporate holdings of open-market paper. (For non-financial corporations, this category is largely commercial paper.) The subsequent expansion of this market has been financed largely by the acquisitions of corporations, not by those of financial institutions.

In 1965, non-financial corporations had almost \$7 billion in open-market paper, or less than 10 percent of their liquid assets. Following three years of expansion, corporations were holding \$14 billion of this paper, or 17 percent of their liquid assets. Finally, at mid-1969, corporate holdings of open-market paper jumped to \$17 billion, at a time when their time deposits were falling by \$5 billion. This sharply illustrates the sensitivity of modern corporate treasurers to alternative yields, since in this period the commercial-paper rate passed 8½ percent, or 2¼ percentage points above the ceiling on longest-term CD's.

The Treasury securities market has also felt the impact of greater corporate sensitivity to the alternative costs of holding liquid assets. In 1961, corporations held \$19 billion in U.S. Government securities; at the end of 1968, their holdings were down to under \$14

billion. Then in the first half of 1969, non-financial corporations unloaded some \$8 billion, at which point their ratio of Treasury securities to total liquid assets was down to 8 percent, as against 32 percent in 1961.

In sum, the corporate sector has played a key role in the current economic expansion by pushing through a massive program of capital expenditures. Investment in capital goods, while it has lain the foundation for future growth by building up the economy's productive capabilities, has also been a source of demand upon existing capacity. Prior to 1965, this dual aspect of investment created no conflicts, since the economy contained unutilized resources which rising investment could employ. But with the return to more-or-less full employment and a continued buildup in demand by all sectors of the economy, some stresses began to appear.

Corporations in recent years have faced the task of raising funds in the face of a slowdown in the growth of internal funds and an increase of monetary restrictions in the nation's financial markets. They have responded by managing their liquidity positions more closely and by tapping new sources of finance. The price of all this, however, has been a higher level of interest rates. Yet the achievement of a rapidly growing volume of investment reflects both the flexibility of the nation's financial markets and the increased financial skills of the nation's corporate treasurers.

Robert Johnston

Publication Staff: R. Mansfield, Artist; Karen Rusk, Editorial Assistant.

Single and group subscriptions to the *Monthly Review* are available on request from the Administrative Service Department, Federal Reserve Bank of San Francisco, 400 Sansome Street, San Francisco, California 94120

