Business Conditions

Is there a future for variable rate mortgages?

Capital spending lags the upswing

November 1975
Is there a future for variable rate mortgages?

Early this year a proposal by the Federal Home Loan Bank Board to implement more widespread use of variable rate mortgages met strong resistance from consumer and labor groups. The proposal was ultimately withdrawn. But the problems that gave rise to the proposal remain very much alive.

Capital spending lags the upswing

The sense of urgency to provide new plant and equipment so evident in 1973 is largely absent in late 1975. The main deterrent to capital spending appears to be a lack of confidence on the part of business executives.
In response to strong opposition from consumer and labor groups, the Federal Home Loan Bank Board has withdrawn a proposed change in its regulations that would have permitted federally chartered savings and loan associations to write variable interest rate mortgage loans on owner-occupied homes. This type of contract will be permitted, however, on multifamily and commercial properties, effective December 8, 1975. Loans on such properties account for almost one-third of all mortgage debt outstanding. Implementation will provide some relief for the problems that generated the original proposal, which are still very much alive. The purpose of this article is to review the issues surrounding this controversy and to provide a perspective from which new initiatives can be judged.

The standard fixed-rate mortgage contract calls for level monthly payments composed of (1) a decreasing portion representing interest on the outstanding balance computed at the specified rate for the life of the contract and (2) an increasing portion of principal repayment. This is the type of contract customarily used in home financing in the United States. It became widespread in the thirties when many homeowners were not able to pay their home loans at maturity or to refinance them under the short-term single payment contracts then typical.

Variable rate mortgages (VRMs), too, involve monthly instalments of interest and principal, and they can take a number of forms. But the distinctive feature is that the contract interest rate is subject to change by the lender, usually in accord with some specified indicator of market interest rates or cost of funds, or with an index of wages or prices. Such changes can be implemented through adjustment of the monthly payment, the period of amortization, or some combination of both. An important aspect of such contracts is that rate changes take place in both directions. In practice, however, flexibility is often restricted. The Federal Home Loan Bank Board (FHLBB) proposal included limits on both frequency and amount of the increases that could be made for owner-occupied homes.

Some state laws expressly permit lending institutions to write mortgage contracts in which the mortgagor has a right to change the interest rate, subject to usury law limitations. Even in these states, however, the option has been sparsely used because of strong borrower opposition. Since April 1972 federally chartered savings and loan associations have been prohibited from including interest adjustment clauses that would increase the amount of any monthly payment of principal and interest above the first payment.

Many financial institutions, particularly savings institutions that finance housing, and housing industry spokesmen have advocated greater use of variable rate mortgages to maintain savings flows and the availability of mortgage credit during periods of inflation and rising market interest rates. They argue that the institutions that finance housing cannot pay the increased interest on savings necessary to maintain an adequate supply of mortgage money unless the return on mortgage loans rises commensurately.
with the cost of funds. The availability of mortgage money is of crucial importance, of course, for people who want to buy houses, for the construction industry, and for the economy generally.

**The long-term lender’s bind**

Rising interest rates in the money and securities markets cause problems for the lender who “borrows short” and “lends long” because the earnings on long-term fixed-interest loans do not keep pace with the cost of loanable funds. Financial institutions, especially savings and loan associations and mutual savings banks, act as intermediaries between savers and those who borrow to finance the purchase of homes. These institutions lend under long-term fixed interest mortgage contracts while they obtain a large portion of loanable funds in the form of savings deposits, most of which can be withdrawn either on demand or within a relatively short span of time. Unless rates paid on savings deposits are competitive with the returns savers can earn on alternative investments, savings inflows to these institutions decline or are reversed—a phenomenon referred to as “disintermediation”—and mortgage money dries up.

Interest paid on savings deposits rose from 2 percent or less in the mid-fifties to a range of 5 to 7½ percent today. Nevertheless, disintermediation became a serious problem on three occasions when market interest rates rose to cyclical peaks—in 1966, 1969, and 1974. The immediate obstacle to the payment of competitive rates in those periods was the rule of the supervisory authorities that set ceilings on deposit interest rates. These ceilings were gradually raised over time to improve the competitive position of the intermediaries, and proposed legislation, based on the recommendations of the 1971 Report of the President’s Commission on Financial Structure and Regulation, calls for their eventual elimination. However, eliminating the deposit rate ceilings will not solve the more basic problem of savings institutions—that is, the ability to pay higher average rates on either savings deposits or borrowed funds depends on the ability to raise the average return on mortgage portfolios.

Both the cost of funds and the return on mortgage loans have risen, but the spread between them declined significantly at S&Ls in disintermediation periods and adversely affected the amount of mortgage loans made. Reduced lending activity reflected both the reduction in savings inflows and the limited ability to borrow at the higher interest rates as earnings margins narrowed. The average spread for the industry appears to be around 150 basis points if savings institutions are to cover costs other than interest and dividends comfortably. The VRM is one possible way of bringing port-
folio earnings into closer alignment with interest cost.

As the standard, level-payment, fully amortized mortgage contract gained acceptance over the years, the term of the average mortgage loan was extended. This permitted lower monthly payments with smaller downpayments. However, slower repayment of principal reduces the volume of funds the lender has available for reinvestment and the longer term has exposed the lender to larger losses on the sale of existing loans.

**Long maturities put lenders at a disadvantage when interest rates rise**

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Rising market interest rates also reduce the pre-payments of principal. Borrowers are less likely to voluntarily prepay loans with low fixed interest rates or refinance their loans at such times. Moreover, when new mortgage funds are scarce and expensive, fewer homes are sold with proportionately less turnover of loans, further reducing funds available for new loans at the higher rates.

While variable rate contracts would help to reduce the impact of these factors on lenders' ability to pay competitive rates for funds in the future, such contracts also would mean reduced yields when market rates fall. Moreover, the problems of legal ceilings on rates paid on savings and usury laws applicable to mortgage loans would not be relieved in any way by the use of the VRM.

**The borrowers' view**

Strong opposition to the Federal Home Loan Bank Board proposal from consumer groups implies that the VRM would be injurious to borrowers. Clearly, a homeowner lucky enough to have a 5½ percent mortgage when the going rate on new loans is 9 percent would not look kindly on an arrangement that would increase his payments or extend the loan's duration to adjust to the current market. It is not so clear that new borrowers would be disadvantaged by the inclusion of "escalator clauses" in new contracts and, since there is no question that outstanding contracts will be honored as written, it is only new borrowers that would be affected.

New borrowers should be concerned with three factors in judging the costs and benefits of a VRM-type contract: (1) the absolute level of the contract rate, (2) how that rate is likely to change throughout the term of the loan, and (3) the relative attractiveness of the non-interest terms of the contract. It seems likely that much of the consumer opposition derives from the rising interest rate trend that has accompanied the inflationary conditions of the past ten years. People who obtained mortgages under VRM contracts during that period would have been subject to upward rate adjustments. Continuation of this trend should not be expected unless there is an acceleration of the rate of price inflation. With the price indices now slowing, the risk of further upward rate adjustment from the currently prevailing 9 to 9¼ percent range is greatly diminished. In fact, some downward adjustment would be in prospect and would work to the benefit of borrowers under VRMs written now.

Prospective home buyers are concerned about whether and on what terms they...
will be able to obtain financing. While some might prefer rates fixed in advance with no uncertainty about total financing costs, mortgage money with adjustable interest may be better than no mortgage money at all. Moreover, the greater the portion of outstanding loans on which rate adjustments can be made, the smaller the amount of the necessary increase in the rate on new loans to cover rising fund costs. Thus widespread use of VRMs could conceivably make for lower contract rates on new loans. Similarly, to the extent their cost of funds falls, lenders could reduce rates on new loans more promptly when market rates decline, and those reductions, in turn, would increase the portion of household income available for other expenditures. These potential indirect benefits from the VRM, however, are difficult for the average citizen to recognize and measure against the risk that his payment may be boosted.

Protection of the borrower from unjustified rate boosts under VRMs would depend on the precise terms of the contract and government regulations. Mortgages written with rate escalator clauses in the past usually permitted lenders to increase the interest rate at their discretion subject to occasional restrictions on the amount and frequency of increases. Upon notice of an increase, prepayment of principal was usually permitted without penalty. Reductions in rates depended on the ability of the borrower to renegotiate the loan when market interest rates declined. The proposed FHLBB regulations provided that upward adjustments in the interest rate could be made by the lender only in response to changes in the Board-approved index specified in the mortgage contract. Increases would be limited to an average of \( \frac{1}{2} \) percent every six months and a cumulative total of \( 2\frac{1}{2} \) percent above the initial contract rate. Downward adjustments would be mandatory but limited to an average required decrease of \( \frac{1}{2} \) percent every six months. Forty-five days notice would be required and the loan could be prepaid without penalty whenever the interest rate exceeded the initial contract rate.

One matter of concern is whether upward rate adjustments would raise payments beyond the borrower’s capacity to pay. For people on fixed incomes, or those with limited upward mobility, VRMs would present additional risks. For others, however, increases in mortgage interest rates during periods of inflation would probably be accompanied by gains in personal income sufficient to permit increased monthly mortgage payments without undue burden. Such adjustments, of course, would reduce the advantage mortgage borrowers have enjoyed in past periods of inflation, when rising income, rising property values, and fixed interest costs have combined to ease the burden of housing costs over the life of the loan and allowed them to pay their debts with cheaper money.

**Dilemma for public policy**

Interruptions in the flows of savings into the financing of housing that have accompanied recent periods of tight money have been a major public concern. However, the spurts in market interest rates that have caused these diversions were an outgrowth of efforts to restrain the growth in money and credit in the economy to a pace that would stem price inflation—itself the major cause of high interest rates in the long run.

Because credit plays such a large role in the housing industry, high rates have a deleterious effect on the demand for housing, cutting many lower-income borrowers out of the market. Political pressures to keep down credit costs for home buyers are always strong. Usury laws on the books of many states reflect this same concern. But to restrain either deposit or mortgage rates
when yields on other financial assets are rising reduces the supply of credit available to finance housing. Private housing starts declined from 2.4 million in 1972 to 1.3 million in 1974 primarily as a result of the reduced availability of mortgage funds for the purchase of new and existing houses. Existing inventories of unsold housing units have hindered the expansion of residential construction during the current recovery.

Attempts to resolve this dilemma have involved large operations by federally sponsored housing agencies to channel funds into housing by raising funds in the money markets for advances to S&Ls or for the purchase of mortgages in the secondary market. These operations, however, have not solved the basic problem of the squeeze on lenders’ net income.

More widespread use of the VRM, if accompanied by flexibility in rates paid on liabilities, should improve the housing industry’s ability to compete for financing. Use of VRMs for multiple unit structures will have an impact that will grow as the proportion of this type of mortgage in portfolios gradually increases.

Acceptability of such arrangements for individual homeowners would be enhanced by safeguards against large and/or frequent upward adjustment in rates, mandatory reductions when market rates decline, and a modification of prepayment penalties. Borrowers could be offered a choice between a standard fixed rate contract and a VRM, and some might well prefer the latter when rates are historically high. At other times borrowers might be offered some incentive, such as a slightly lower initial rate on a VRM than the rate applicable to a standard loan.

Nevertheless, there are few illusions that the VRM is a panacea for home buyers or the housing industry. Any arrangement that permits increases in home mortgage interest rates is suspect, and the implementation of such adjustments is difficult.

Some critics have opposed the adoption of VRMs on grounds that efforts to prevent upward adjustments under these contracts could generate pressure to hold down interest rates generally and thus abort effective inflation control. Others see a lessening need for VRMs in view of the large amount of mortgages that have been written at high rates in recent years and the extension of time deposit maturities.

The reference rate problem

Even if the hurdles of governmental regulation and borrower resistance to rate escalation could be cleared, widespread adoption of the VRM could still founder on the problem of choosing an appropriate reference rate for home mortgages.

Ideally, the variable interest rate should be linked to a reference rate that is beyond the control of the lender, moves with market interest rates, and can be explained in clear and simple terms to borrowers. The use of an index based on the cost of funds would enable a given savings institution to maintain its earnings margin and to compete for savings. But such information is not readily available to the borrower and is not completely beyond the influence of the lender. Furthermore, as savings institutions have offered time deposits with progressively higher yields, the cost of funds has steadily increased and borrowers may rightfully question if this cost would ever go down. The use of a series, such as a Federal Home Loan Bank (FHLB) average cost of savings, at least partially resolves these problems.

Market interest rate series provide an objective measure of interest rate trends widely available to the public, but it is difficult to obtain a consensus on the “ideal” rate. Savings flows depend primarily on short-term interest rates but the earnings margin of the lending institution depends also on the mortgage loan rate, a long-term
rate. As a compromise, an intermediate-term rate series has been suggested as a guide for mortgage rate changes.

Household income is the major determinant of the ability of the borrower to pay the required monthly mortgage payment. In recognition of this, wage or price indices have sometimes been recommended as appropriate reference rates. However, because the relationship of such an index to an individual borrower’s income or to the savings flows and profit margins of a lender is generally remote, this suggestion has small appeal for either party.

The FHLBB proposals would have required the use of an approved index as a reference rate although that rate would be selected by the lending institution. But without the freedom to implement changes consistently in both directions, neither lending institutions nor the housing industry can reap the potential benefits of the VRM. Experience appears to bear this out.

U.S. experience with the VRM

During the sixties a number of both state and federally chartered savings and loan associations began making mortgage loans with interest adjustment clauses that permitted the association to raise the interest rate on the loan if it wished. Few associations, however, actually exercised the option. In April 1972, to protect borrowers from arbitrary increases in the interest rate, the FHLBB expressly prohibited federally chartered savings and loan associations from making installment mortgage loan contracts in which a subsequent required monthly payment of principal and interest would exceed the first payment. Loans made thereafter could increase the interest rate only by extending the maturity of the loan and then only up to the permissible limit of 30 years.2

Commercial and savings banks are not restricted in using VRMs except as they are affected by state laws or rulings. Only nine states have a statutory reference to the use of a variable rate or escalator clause in a residential mortgage contract. Six states—California, Illinois, Massachusetts, South Carolina, Virginia, and Wisconsin—expressly permit variable or escalator provisions. Three states—Michigan, Pennsylvania, and Vermont—prohibit any adjustments in mortgage interest rates.

California. Several California savings and loan associations have issued variable interest rate mortgages for a number of years. Initially, the adjustments were not tied to any index but the total increase was limited. Later, adjustments were tied to changes in the passbook savings rate, but this became an unsatisfactory proxy for the cost of funds as higher rate certificate accounts increased in importance. The lack of an acceptable formula or index made use of the variable rate clause difficult.

A 1970 California law set specific limits on the amount and frequency of rate changes that could be invoked by any lender under a VRM. The standard index established by the savings and loan commissioner was the last weighted average cost of savings, borrowings, and FHLB advances to district members as published semiannually by the FHLB of San Francisco. In accord with changes in this index, equivalent VRM rate decreases are mandatory if the index drops 10 basis points or more, while increases are optional and limited to 25 basis points semiannually. Prepayment penalties must be waived at the time of a notice of an increase.

One California savings and loan association that has made variable rate mortgages tied to this standard index since 1970 currently has 70 percent of its loan

Footnote:
2Flexible payment mortgages, authorized in 1974, may allow lower monthly payments during the first five years than in subsequent years but an increase in the interest rate is not permitted.
portfolio in VRMs. During the four and one-half year period, rates have been increased three times and decreased once, for a net increase of 60 basis points on contracts outstanding throughout this period. Offsetting benefits to mortgage customers are the elimination of due-on-sale clauses and prepayment penalties, reductions in fees and discounts for loans, and less-than-average increases in contract interest rates for new loans. A benefit claimed for savings customers is the lender’s increased ability to offer more competitive rates on consumer deposits.

Early this year most of the other major California-chartered S&Ls began offering VRMs. Reception by borrowers is reported to have been good. Federally chartered California S&Ls, which cannot issue variable rate mortgages, have been active in advocating a change in the regulations to allow them to do so.

**Wisconsin.** Interest adjustment clauses have been legal in Wisconsin since 1941 and are included in most conventional mortgage notes written by state chartered S&Ls. Most federally chartered associations use the same clause. Generally, the clause provides that after three years the interest rate may be increased or decreased at the option of the association upon at least four months written notice to the mortgagor. During the notice period the mortgagor may repay the loan without penalty.

Until recently, only a few associations exercised the option to raise or lower interest rates on home mortgages. In the fall of 1973 several associations, including the state’s largest, notified loan customers that loan rates would be increased up to a maximum of 2 percent and in most cases the required monthly payment would be raised. Borrowers affected included owners of one- to four-family, multifamily, and commercial properties.

This action generated an organized and well-publicized reaction from activist groups who pressured the associations to rescind the increases. Bills were introduced in the state legislature to prohibit or sharply limit the use of the interest adjustment clause. Class action lawsuits were filed by borrowers who claimed that the escalator clause is illegal and unenforceable. This experience demonstrates the importance of customer understanding of the variable rate feature at the time the loan application is made and at the closing of the loan; the need for public recognition of potential benefits is imperative.

**Rural mortgages.** The 12 Federal Land Banks (FLBs), which make long-term loans secured by first mortgages on farm real estate under the supervision of the Farm Credit Administration, have been using variable interest rate contracts since early 1970. Local FLB associations, through which borrowers apply for loans, are cooperative credit institutions owned by the borrowers. Loanable funds are obtained primarily through the sale of FLB intermediate-term bonds in the capital markets.

In the late sixties fluctuations in the rates paid on bonds sold combined with fixed interest rates on mortgage loans produced inequities among users of FLB credit and reduced earnings and dividends. To spread the average cost of funds more evenly among all borrowers, the banks began to offer mortgage loans on which they could adjust interest rates up or down as often and as much as necessary to reflect the cost of money and other expenses. Such adjustments are implemented through changes in the amount of the mortgage payment rather than in the term of the loan.

The Farm Credit Act of 1971 authorized the Federal Land Bank associations to make loans to rural nonfarm residents for the purchase, construction, or remodeling of moderately priced, single-family dwellings which are owner-occupied. The first such loans were made in mid-1972 un-
der FLB variable rate contracts, financed by borrowing in the capital market. Adjustments to rising costs increased the typical rural home mortgage rate under this program from 7½ percent in mid-1972 to 9 percent by December 31, 1974. Nevertheless, almost 18,000 borrowers accepted these contracts involving total principal in excess of $400 million.

VRMs abroad

Foreign experience also provides some basis for judging the performance of housing financed under Variable Rate Mortgage-type arrangements.

United Kingdom. More than 80 percent of the private home mortgages in the United Kingdom are held by building societies—mutual institutions similar to savings and loan associations in the United States. Some societies began experimenting with variable interest rate clauses as early as 1930, and today virtually no building society will grant a fixed rate mortgage.

The typical British mortgage loan has a maturity of 20 to 25 years and is fully amortized on a level payment basis. The interest rate usually is based on the recommendation of the Council of the Building Societies Association, the trade association of the major lenders.

Neither changes in mortgage interest rates nor the rates paid on savings deposits are tied to any standard index. They are recommended at irregular intervals, usually after the trend in the flow of funds has changed significantly and appears unlikely to be reversed soon. Rates are changed on outstanding mortgages after giving notice as specified in the contract, typically one month. Borrowers ordinarily can choose whether to change their monthly payment or maintain the same payment and change the maturity of the loan. But cumulative increases in the mortgage interest rate may necessitate an increase in the monthly payment if it is no longer sufficient to cover the interest charges. On notice of an increase in the interest, the borrower may prepay his mortgage within a given period without penalty.

Building societies have used the present method of changing mortgage loan and savings deposit rates since the late 1940s. The practice has relieved, but not eliminated, the problem of instability in the funds available for mortgages since adjustments to market rates have been made only after large inflows or outflows have taken place. Reluctance to raise mortgage rates reflects government pressures to hold rates down. Although there are no legal ceilings on either deposit or loan rates, building societies have been unable to make all the rate adjustments considered necessary to maintain savings flows and to maintain normal operating margins. The British Treasury bill rate rose from 8 percent to almost 13 percent in 1973 and was still above 11 percent at the end of

Use of VRMs abroad has not eliminated cyclical swings in housing starts

percent of 1967

indexes of starts

United States

Canada

Great Britain

During 1973 rates on standard mortgage loans were increased in three steps from 8½ to 11 percent despite government resistance and temporary subsidies. When market rates remained at high levels and net savings inflows continued to decline in 1974, short-term government loans were offered to building societies to maintain mortgage lending without raising the mortgage loan interest rates.

**Canada.** Virtually all new single-family residential mortgages in Canada are five-year roll-over loans. The loans are written for a five-year term at a fixed rate with amortization based on a period of 20 to 25 years for conventional mortgages and up to 40 years for National Housing Act (NHA) government guaranteed mortgages. At the end of each five-year term the borrower with a conventional loan may pay off the unamortized principal or refinance it with a new five-year loan at the current interest rate with monthly payments calculated to fully amortize the principal over the remainder of the original period. If interest rates have increased during the prior five years, the borrower’s payment will be increased. The borrower with an NHA loan may have the original maturity extended up to 40 years to maintain the original monthly payment. The current mortgage interest rate is closely related to interest rates paid on five-year term deposits which are a major source of loanable funds. There are no interest rate ceilings on savings deposits.

Roll-over mortgages have been used in Canada for conventional single-family loans for almost 40 years. Prior to 1969 all NHA loans were required to have a fixed rate of interest for a term of 25 years or longer. In 1969 the law was changed to permit five-year roll-over contracts.

The renegotiation of the interest rate on outstanding single-family mortgage loans every five years appears to have been well accepted by borrowers and lenders, even though interest rates have risen substantially in recent years. The correspondence between the five-year mortgage adjustment and five-year term deposits has enabled lenders to maintain savings flows and profit margins.

From 1971 to 1973 private housing starts were more stable in Canada than in the United States. But from January to December 1974 the Canadian annual rate of starts declined about 40 percent with multifamily starts most affected. The decrease appears more related to reduced demand for housing because of rising prices and high interest rates than to disintermediation and credit rationing. 

*Eleanor Erdevig*
The longest and deepest decline in economic activity since World War II ended last spring and a pronounced recovery has occurred since then. The Midwest has not fully participated in the upswing, primarily because of its emphasis on durable goods, especially producer equipment, which usually lag the general economy.

Total business outlays on new plant and equipment in the United States are expected to total $113.5 billion in 1975, up 1 percent from the record 1974, according to the current estimate of the Commerce Department’s Bureau of Economic Analysis (BEA). After adjustment for higher prices for structures and equipment, however, capital spending probably will be at least 10 percent less this year than last. Therefore, 1975 breaks the series of three consecutive sizable annual increases in business capital spending that started in 1972.

A survey of business spending plans released by McGraw-Hill in mid-November, based on early planning, indicates that capital outlays will be 9 percent higher in 1976 than in 1975. This increase would merely equal the expected rise in prices, suggesting that in “real” terms investment would be about the same in both years. McGraw-Hill analysts point out that actual spending may be larger in 1976 if plans are firmed up in a period of expanding orders and sales, as has often happened in the past.

A vital sector

Changes in capital spending vary substantially by industry from year to year. Such variations were highly significant in 1975, and preliminary information suggests this will be true again in 1976. The local impact of capital spending on employment and income varies according to where equipment and materials are produced and where they are installed. As a result, total capital spending is an abstract concept to most consumers and businessmen. However, this concept is of great significance to economic analysts and others who are concerned with measuring the health of the economy.

A continuing high level of capital spending is necessary if output of materials and finished consumer goods and services is to be adequate to retard inflation and satisfy aspirations for a higher level of living, including increased leisure, both for those who work and those who don’t. This is because increases in output per man-hour (productivity) depend largely upon the quantity and quality of the tools of production available together with access to additional mineral resources. Also, a growing share of capital spending must be devoted to facilities to reduce air and water pollution and job hazards and to develop increasingly costly sources of raw materials. Finally, the trend of capital spending is a major factor in determining the nature and length of business cycles.

About three-fourths of all capital spending is for producer equipment, the rest for construction. The five states of the Seventh Federal Reserve District—Illinois, Indiana, Iowa, Michigan, and Wisconsin—with 16 percent of the nation’s population turn out about one-third of its producer equipment. The region accounts for 40 to 60 percent of the nation’s output of
motor vehicles, engines and turbines, farm equipment, construction equipment, and metalworking machinery. Chicago, Detroit, Indianapolis, and, especially, Milwaukee are heavily dependent on demand for capital goods. Peoria concentrates on earthmoving equipment and the Quad Cities area leads in farm equipment. Various other Midwest centers are capital goods oriented to a substantial degree, e.g., Fort Wayne, South Bend, Racine, and Rockford. Moreover, almost one-third of the nation’s steel is produced in the Chicago and Detroit metropolitan areas, and a major share of this steel is channeled to producers of business equipment and to heavy construction.

Business cycles and investment

Capital spending occurs in broad waves associated with ups and downs of the general business cycles. These outlays usually have gathered momentum only after a revival in business has been well under way. This is because, after a recession, most manufacturers, transportation companies, utilities, and other businesses have margins of unused capacity which narrow significantly only after an expansion has progressed for some time.

Total capital spending may continue to rise for some months after the general economy has begun to recede. This is primarily because orders for most types of equipment and virtually any type of major structure have long lead times. Basic expansion in such industries as steel, chemicals, petroleum, and mining from the “grass roots” or “greenfield” state to full operation may take three to five years. Even if demand for the products to be produced declines temporarily, broad expansions usually are pushed through to completion, although often with reduced urgency. Cancellations, even substantial delays, may be extremely costly in terms of penalty fees and carrying costs. Therefore, a firm decision to proceed with a basic expansion is taken only after careful evaluations of long-term needs, available financial resources, and the future economic environment.

In 1973 and as late as mid-1974 available evidence suggested that U.S. industry was engaged in the most pervasive capital spending boom in the postwar era. Virtually every category of business was pushing programs to modernize and/or expand facilities. Virtually all materials and components were in short supply. Anxious to assure adequate supplies, businesses duplicated orders. Order backlogs mounted and lead times stretched out to unprecedented lengths. When new facilities are being constructed, a perverse influence is exerted temporarily because these programs aggravate the very shortages they are intended to alleviate.

Adverse developments, starting with the OPEC oil embargo in late 1973 and culminating in the sudden recession in most lines of activity in the fall of 1974, caused many business executives to re-evaluate capital spending plans. Profits of most businesses declined sharply and
shortages rapidly gave way to abundance. Orders for equipment were canceled on a surprising scale, and work was halted or slowed on many projects. Further cutbacks in spending plans have occurred, and are still occurring, in 1975.

Capital spending equaled 8 percent of the gross national product in 1974, up from a 7.7 percent average in the years 1971-73 but well below the 8.5 percent peak reached just after World War II and again in the mid-1950s and mid-1960s. This earlier peak might have been reached or exceeded if long-range plans approved in 1973 had been completed on schedule. Capital spending, as a proportion of GNP, probably will fall to about 7.7 percent in 1975 and even further in 1976. Outlays at the level indicated for 1975, and apparently for 1976, probably may not be sufficient to support economic growth at the historic 4 percent annual rate.

**Industry shares vary**

Over two-fifths of the $113.5 billion of business capital spending estimated by the BEA for 1975 is accounted for by manufacturing, about 30 percent by electric, gas, and communication (mainly telephone) utilities, 20 percent by the commercial sector, and the remaining 10 percent by mining and transportation. This total does not include about $12 billion spent by farmers, mainly for new equipment. It also excludes business outlays for land, for used buildings and equipment, and expenditures for facilities abroad.

The proportion of capital spending attributable to each sector varies somewhat year to year. Manufacturing outlays tend to fluctuate more than the total, especially for durable goods. Spending by railroads and airlines also tends to be volatile.

Not all industries will increase capital spending in 1975, even without adjustment for higher prices. Spending by electric utilities, telephone companies, commercial developers, and the airlines will be lower this year. Within the manufacturing sector substantial declines in spending are indicated for electrical machinery producers, motor vehicles, and textiles. Relatively, the strongest sectors are mining (especially coal) shipping, and gas utilities, and, in manufacturing, steel, paper, chemicals, and petroleum.

Preliminary indications for 1976 are that the biggest boosts in capital spending again will be in mining, gas utilities, chemicals, and petroleum, with textile manufacturing showing a strong revival. Declines are likely for the airlines, aerospace manufacturing, some other manufacturing categories, and office building construction.

**Caution is widespread**

Uncertainties are present in all industries regarding future needs and the ability to finance capital spending. Estimates of current capacity are suspect in many industries, partly because a large portion of older existing facilities have relatively high operating costs and do not
meet present standards for control of wastes, noise, and safety. High interest rates and heavily leveraged capital structures are a deterrent in many sectors.

Most major steel companies have programs under way to replace obsolete facilities and to increase capacity substantially. Many of these programs appear to be firmly based, but a large plate mill scheduled for the Chicago area was postponed recently. Oil companies are slowing programs to develop new fields, and no new refineries are planned. The elimination of the depletion allowance is cited as reducing available funds and increasing risks on new ventures. A large volume of unrented office space is reported in all major centers and militates against new developments. Most airlines are not ordering new aircraft, and may not do so for two years. Truckers are still holding back on purchases of heavy tractors and trailers, despite a rise in intercity traffic, partly because of uncertainties regarding complicated braking systems required by federal regulation since last March 1. Despite obvious needs many railroads are reducing outlays on equipment and maintenance because of financial difficulties. Major electric utilities have canceled or postponed work on new generating stations both because of limited availability of funds and reduced estimates of future demand. Development of some new coal mines has been halted by litigation relating to environmental impact studies, although coal is widely hailed as the answer to the nation’s energy problem. Various proposed factories have been postponed because of inability to assure adequate fuel or electric energy.

Past history suggests that capital spending will revive on a broad scale once sustained economic growth is clearly under way. Postponements of projects in the past two years may prove to be costly, not only for the industries involved but for all users of finished goods and services.

Setting the stage

Aside from energy-related fields, the sense of urgency to provide new plant and equipment so evident in 1973 is largely absent in late 1975. Ready availability of goods of virtually all types has encouraged inventory cutting in place of inventory building. The main deterrent to capital spending, however, has been the abrupt shift from general ebullience to a widespread lack of confidence on the part of business executives.

A number of favorable factors will tend to promote capital spending in the years ahead. Most forecasts available to business indicate total output will rise at least 5 percent and possibly 8 percent in 1976 and that growth will continue in 1977. Profits, which declined sharply from 1974 peaks—artificially inflated by inventory gains—are widely expected to rise 15 to 20 percent in 1976. Large corporations have improved their liquidity this year through sales of stocks and bonds, and many have substantial unused lines of bank credit. Interest rates, especially short-term rates, have declined in the recent period, contrary to most expectations, and loanable funds are more available. Prospects are favorable that the investment tax credit, increased to 10 percent last spring, will be continued—possibly even increased. Prices of land, buildings, and equipment, which rose very rapidly in 1973 and 1974, appear to be leveling off or are increasing at a slower pace. Finally, rates of worker compensation continue to rise rapidly, encouraging the purchase of facilities that reduce labor requirements.

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