FEDERAL RESERVE BANK OF RICHMOND

MONTHLY REVIEW

More Subdued Growth in 1967
Capital Investment Cycles
The Fifth District

FEBRUARY 1967

More Subdued Growth in 1967

HIGHLIGHTS

Major highlights of the forecasts covered in this survey are:

1. All forecasters agree that the economy will not grow as rapidly in 1967 as it did in 1966.

2. No forecaster predicts for 1967 a lower GNP measured in current dollars but a small minority foresees the possibility of a lower *real* GNP.

3. The range of predictions for GNP is from $755 billion to $795 billion, with a large concentration between $780 billion and $790 billion.

4. All forecasters agree that the most important —and most uncertain—factor in the picture will be Federal Government expenditures and particularly expenditures for the Viet Nam conflict.

5. There is general agreement also that business capital outlays will grow much less rapidly in 1967 than they did in 1966.

6. The general sentiment seems to be that sales of new automobiles and expenditures for new construction will show little, if any, increase over 1966 and may possibly decline.

7. Wages and other business costs are expected to rise while corporate profits decline.

8. Wholesale and consumer prices are expected to continue upward but perhaps not so fast as in 1966.

9. The rate of unemployment is generally expected to average near 4%.

10. Most forecasters foresee some easing of monetary restraint but are highly uncertain about fiscal policy.

PROLOGUE

Each year has its own peculiar difficulties for the business forecaster and each year's difficulties seem, at the moment, to be especially severe. In 1965 the major difficulty was a large inflationary surge near the yearend, compounded by extensive revisions of several basic statistical series, which caused forecasters to undershoot the 1966 target by a substantial margin. In the 1966 forecasting season the situation was reversed. Instead of an accelerating rise there were, in the closing months of 1966, increasing signs of a slower pace of economic activity and developments which some interpreted as portents of a downturn.

It is one thing to forecast when the signs are fairly clear that the economy will continue on an upward course and the only major question is the speed of the advance. It is something else again when the signals are contradictory and some of them signal a change of course. So this year the forecasts have been fewer, later, more qualified, and less detailed. As one observer has noted, "The favorite spectator sport this fall, aside from watching the bears pursue the bulls through the canyons of Wall Street, is watching the forecasters agonize over their model-building for 1967 . . . . in the presentations they are now making to bemuse management groups, the forecasters are including more ifs, buts, and whereases than even they are normally prone to use."

This brief article summarizes the relatively lean crop of forecasts we have been able to assemble. As in previous years, the discussion attempts to convey the general tone and pattern of the predictions, which this year number over 40, including several group efforts.

The views and opinions set forth here are those of the various forecasters. No agreement or endorsement by this Bank is implied.

THE ECONOMIC BACKGROUND

The performance of the economy in 1966 exceeded even the most optimistic predictions made near the

end of 1965. In current dollars, GNP was near $739 billion, or about 8.5% above the 1965 figure. This was the largest increase, both absolutely and relatively, in the six-year expansion which began early in 1961. About 3% of the increase was due to higher prices, however, which reduced the increase in real terms to 5.3%, somewhat less than the 5.9% rise realized in 1965. By far the largest increase in 1966 came in the first quarter with a jump of nearly $17 billion at an annual rate, or about 9.5%. The advance slowed sharply to about $11 billion in the second quarter, and then increased a little in the third and fourth quarters.

The strong performance of the economy as a whole was the more remarkable in view of the substantial and continuing weakness in two major components—automobiles and construction. The production of motor vehicles and parts reached a peak in March and thereafter fluctuated at lower levels for the remainder of the year, although making a sharp one-month recovery in October. Expenditures for new construction also peaked in March at an annual rate of $79.5 billion, and then declined to a level below $70 billion by yearend—a decline of some 12%. Rising expenditures in other areas more than offset the weaknesses in the above factors. The largest increases were in personal consumption expenditures, business fixed investment, defense expenditures, and expenditures of state and local government.

In other areas, employment scored another large gain in 1966, rising by some 1.8 million. Farm employment continued its secular decline, dropping nearly 400,000. Nonfarm employment thus rose by more than 2.1 million, or over 3%. Employment continued to show good gains near the end of the year when the pace of advance was slowing in several areas. Unemployment fluctuated near the three million figure for the whole year, with the rate varying between 3.7% and 4.0%.

In the first half of the year industrial production, which had been advancing steadily and vigorously for several years, rose even faster, at an annual rate of 10.8%. This came to a rather sudden halt in August, however, and there was no significant change for the rest of the year. Expenditures for new plant and equipment continued their very strong performance of recent years with an increase of 17.9% at an annual rate during the first half. This was reduced to a rate of 10.4% in the third quarter, and there were signs of further easing in the fourth quarter, including downward revision of previous estimates. This was in sharp contrast to revisions in recent years which were nearly always upward. The rise in personal income continued to accelerate somewhat during the year but personal consumption expenditures grew quite slowly in the second and fourth quarters. Corporate profits after taxes registered a substantial gain in the first quarter, leveled off in the second, and declined slightly in the third and fourth.

Prices increased substantially during the year. Wholesale prices rose at an annual rate of 3.9% during the first part of the year and then leveled off and declined a little near the yearend. The industrial component rose more slowly but more steadily for a gain of about 2.4% for the year. Consumer prices moved up by varying amounts each month for a yearly gain of 3.9%.

Monetary policy was restrictive throughout the year but especially so from May through September. It was distinctly easier in the final quarter. Fiscal policy had a widely fluctuating impact on the economy, strongly inflationary at some times and mildly restrictive at others. This was the result of the moving up of tax payment dates, graduated withholding of personal income taxes, and large sales of assets and participations by Federal agencies, which were abruptly halted in September. The question of a tax increase was debated throughout the year but with one minor exception no action was taken.

In the closing months of the year when most forecasts were made, employment and personal income continued strong but easing trends were emerging in most other areas. Retail sales were sluggish and industrial production was fluctuating narrowly above the August level. Production cutbacks were made in automobiles and home appliances with some layoffs of workers. Manufacturers' new orders for durable goods and machine tools were declining. Inventories were rising, as were wage rates and unit labor costs. Construction expenditures, especially for housing, continued a steep drop. Corporate profits showed a slight easing trend. Wholesale prices turned down in October and consumer prices advanced at a sharply lower rate in November. Some of the forecasts were made before many of these trends emerged.

THE FORECASTS IN BRIEF

The forecasts unanimously predict that the growth of economic activity in 1967 will be less than it was in 1966. All foresee continued growth in dollar terms but an occasional one predicts an absolute decline in real terms. A considerable number expect declines in one or more major areas. As is usual, there is more agreement on the near than on the more distant future. Nearly all expect growth at a declining rate for the first two quarters. Thereafter

some expect the slowing to continue while others foresee a leveling off or a small upturn. Other than the course of the war in Viet Nam, the major imponderable was the question of a tax increase. Most predictions assumed that there would not be an increase. A number of writers foresee higher wage demands, stiffer resistance by employers, and the probability of more strikes. It was generally assumed by the forecasters that the Viet Nam War would last throughout the year and would require increasing numbers of men and amounts of materials, although amounts could not be specified.

Gross National Product The predictions for GNP in 1967 in current dollars range from a low of $755 billion to a high of $795 billion. The distribution is skewed toward the higher figure with a large number falling between $780 billion and $790 billion. The midpoint of the range—$785 billion—would represent an increase of a little more than 6% over the $739 billion estimated for 1966. This compares with 7.8% in 1965 and nearly 8.5% in 1966, and would be the smallest increase since the 5.4% realized in 1963. All hands expect prices to be higher this year and most expect the rise to be between 2% and 3%. This would give an increase in real GNP of between 3% and 4%, the lowest since the 1.9% registered in 1961, and significantly below the figures for 1964, 1965, and 1966, all of which were between 5% and 6%.

Several forecasters note reasons why slower growth in real GNP is probable. These include a lower reserve of unemployed workers, smaller numbers entering the labor force, and a slower growth of productivity. Respecting the latter, one writer noted that the fast growth in productivity in recent years was caused by a cyclical increase superimposed on a secular rise, a coincidence which cannot be repeated or extended now. Other reasons cited include a rapid labor turnover, poorer quality of newly hired labor, slower and less dependable delivery of materials and parts, and the use of obsolete equipment.

The forecasters, of course, differed on the various major components in building up their estimates of total GNP. Considering the magnitudes involved, they were reasonably close together in their predictions regarding the two largest components—personal consumption expenditures and government purchases of goods and services—despite the great uncertainty about defense expenditures. They differed most in their estimates of gross private investment, in some cases being $20 billion or more apart.

Government Purchases The strategic importance and the great uncertainty about defense expenditures make it very difficult to forecast the volume of government purchases of goods and services. A great scarcity of information about current expenditures and plans for the near future compounded the difficulty. Most forecasts for defense expenditures for 1967 cluster around $70 billion, which would be some $10 billion more than the estimate for 1966. Other Federal purchases are usually estimated at $18-$20 billion, making a Federal total of $88-$90 billion. Purchases by state and local governments are confidently expected to continue their strong and steady rise and reach a total of $81-$83 billion. This would put total government purchases in the area of $167-$172 billion, and represent an increase of 12%-14% over the 1966 total. The Federal component alone would show a rise of about 18%.

While total defense spending will be substantially higher this year, a number of forecasters think the rate of increase will slow. This is especially true of new orders for material and equipment which have a strong inflationary impact. Reasons cited for the deceleration include very large procurement orders over the past two years, the smaller increase in manpower in Viet Nam in 1967, and the reduced draft calls announced in December.

Personal Consumption Expenditures These expenditures, by far the largest expenditure component of GNP, are expected to rise by 6% or 7% in 1967, which would place them slightly below $500 billion in most cases. The total will be held down a little by another increase of $1 billion in payroll taxes, effective January 1, 1967, and may be further restrained by a slowing of the increase in consumer debt, which several forecasters expect. The growth is expected to be the smallest—with a few predicting an absolute decline—in the purchases of durable goods, which are forecast at $69-$70 billion. The reasons given are a slightly smaller number of automobile sales—at 8.3-8.5 million—and sharply lower sales of furniture, TV sets, and other home appliances, largely because of the big drop in residential construction. Purchases of nondurables and services are expected to move about in line with GNP.

Industrial Production Most predictions of industrial production call for a 1967 average of 162-165 on the Federal Reserve index, or an increase of 4%-5% in contrast with a rise of about 9% scored in 1966. The main element of strength is expected to be defense production. Production of business equipment is expected to be strong in the early months but to taper off throughout the year. Automobile production, at 8.3-8.5 million vehicles, is expected to fall a little below the 1966 total. Steel

ECONOMY IN 1966 AND EXPECTATIONS FOR 1967

	Unit or Base	1966*	1967**
Gross national product	$ Billions	739	780 to 790
Personal consumption expenditures	$ Billions	466	492 to 499
Government purchases of goods and services	$ Billions	152	169 to 172
Gross private domestic investment	$ Billions	116	115 to 119
Net exports of goods and services	$ Billions	5	4 to 4.5
Index of industrial production	1957-1959	156	162 to 163
Sales of domestic automobiles	Millions	8.4	8.3 to 8.5
New construction put in place	$ Billions	75	75 to 78
New plant and equipment expenditures	$ Billions	61	64 to 66
Change in business inventories	$ Billions	+11	+7 to +9
Corporate profits before taxes	$ Billions	82	78 to 82
Rate of unemployment	Per cent	3.9	3.9 to 4.0
Wholesale price index	1957-1959	105.8	107.9 to 108.4
Consumer price index	1957-1959	113.0	115.8 to 116.4

*Estimated.
**Rough approximations of typical forecast.

production is predicted to be down significantly because of lower demand in both the automobile and construction industries. Production of lumber and other building materials is expected to be sharply lower because of the greatly reduced level of construction activity.

Construction Most forecasts of expenditures for new construction are for about $75-$77 billion, or approximately the same as in 1966, although a few foresee declines of as much as 5%. These expenditures declined sharply in the last three quarters of 1966 and in November were at an annual rate of about $70 billion. It is generally agreed that the decline will continue, probably at a reduced rate, in early 1967. If the 1967 average is to equal that for 1966 there will have to be a substantial rise in the latter part of the year. Expenditures for residential construction were hardest hit and declined almost a fourth from January to November 1966. A number of forecasters note that housing units are now being built at a rate below the rate of family formation and net removals of units from the housing stock, which means that a backlog of demand is being accumulated. This, plus the belief that "the government will do something for housing," leads several of them to conclude that expenditures for housing will level off by midyear and turn up in the second half. On the other hand, some forms of nonresidential construction are likely to decline. The President has ordered a substantial reduction in expenditures for the highway program. Some local government units are encountering difficulties in selling bonds and in the November 1966 election voters disapproved about half of the bonds up for approval. Industrial construction will not grow as rapidly in the first half of 1967 and may decline in the second half. Forecasters note a number of factors which restrain construction, such as high interest rates, scarcity of funds, and the high costs of materials and labor.

New Plant and Equipment Business outlays for new plant and equipment have been a moving force in the business expansion of the past four or five years. For each of the past three years they have risen by 14% to 17%, and have now reached an annual total of more than $60 billion. These outlays require considerable forward planning so it is possible, by surveying the plans of business units, to obtain fairly accurate indications of probable outlays for several quarters in advance. At least two groups periodically make comprehensive surveys of such plans. When business is expanding vigorously, plans are speeded up and actual outlays exceed the projections. The opposite happens when business slackens. For the past three years the revisions in the data have been upward by considerable amounts. In recent months there have been some small downward revisions.

The recent surveys and estimates based on them

suggest that outlays for new plant and equipment will be from 5% to 8% above those for 1966. This would be an increase of less than half of that realized in 1966. Further, an increase of 8% over the annual average for 1966 would give a figure only about 4% above the level prevailing in the fourth quarter of 1966.

Several forecasters note a number of reasons why it may be quite logical to expect a considerable slowing in the growth of outlays, if not an actual decline. For three years outlays—and expansion of capacity—have been growing faster than final demand for products. As new capacity has been brought into operation, the rate of utilization has ceased to rise. In a number of lines demand has eased in recent months. Interest rates are high and prices of buildings and equipment are up considerably. Finally, there are a number of indications that corporate profits will not rise this year and may well decline. If that happens there will be fewer retained earnings available to finance capital outlays.

Corporate Profits Corporate profits have had a phenomenal rise in the past six years. Before taxes the total rose from $50 billion in 1960 to over $80 billion in 1966. After taxes, the rise was from $27 billion to $48 billion. From 1965 to 1966 the after-tax rise was about $4 billion, but it all came in the first quarter. The long and sustained rise in profits has been a major product of the broad advance in economic activity and at the same time a major stimulant to that advance.

Although an occasional forecaster predicts a rise in corporate profits for 1967, a large majority expects a small decline. A number of reasons are cited. The investment tax credit and provisions for accelerated depreciation will be suspended for the year. There may be an increase in the tax on corporate income. The employers' part of the increase in payroll taxes will approximate $1 billion and it may not be possible to shift much of it. It seems assured that the economy will grow more slowly and slower growth usually means lower profits. Finally, the minimum wage was increased substantially on February 1, 1967, and labor unions seem likely to demand larger wage increases and, if necessary, to back up the demands with strikes. Especially if demand is easing, it may not be possible to pass on the wage increases in the form of higher prices. On the opposite side, no forecaster advances any reason for expecting higher profits.

Employment and Unemployment It is perhaps a sign of the times that, in sharp contrast with some recent years, most forecasters had very little to say about employment and unemployment. The typical forecast gave nothing more than the expected rate of unemployment. The few who discussed employment thought that total civilian employment in 1967 would show a gain over 1966 ranging from 1.3 to 1.5 million. This would be considerably below the gain of 1.8 million achieved in 1965 and 1966. The chief reasons given were a slightly smaller gain in the civilian labor force and a smaller reserve of unemployed. The expected rate of unemployment was in most cases given as 3.9% or 4.0%, not much different from the 3.9% rate which prevailed in 1966. One prediction was for a rate of 3.5%. A rate of 3.9%-4.0% would be equivalent to an unemployment figure somewhat above three million.

A few of those who discussed the question thought that the labor market would remain tight but that the level of frictional unemployment would rise. This might happen if activity should decline appreciably in one or more large areas such as construction and the workers laid off were unable to find other work suited to their skills.

Prices As a rule, the forecasters were not greatly concerned about prices. The few who considered the matter did not foresee any large inflation and expected the wholesale price index to be higher by 2% or more, with the consumer index rising by 3% to 4%. A few expressed the opinion that the principal reason for the rises would come from the cost side in the form of higher wages rather than from the demand side. There was mention of a possible repetition of the situation experienced during the 1950's when prices rose in the midst of slow growth or recession.

Summary It is clear that the forecasters of 1966 expect 1967 to see a considerable expansion of the public sector of the economy, accompanied by a much slower growth or even some contraction in the private sector. Just how great the shift will be depends on developments which nobody is able to predict accurately. In general, the forecasters, while expressing considerable uncertainty on some major points, did not manifest any appreciable uneasiness or concern.

A compilation of forecasts, with names and details of estimates, may be obtained from the Federal Reserve Bank of Richmond.

Cyclical Movements in Business Capital Investment

The current plant and equipment boom, which has long since exceeded the bounds of previous postwar experience, has been widely discussed and analyzed. Attention has been focused primarily on total expenditures, but expenditures by the various industrial sectors are of interest too.

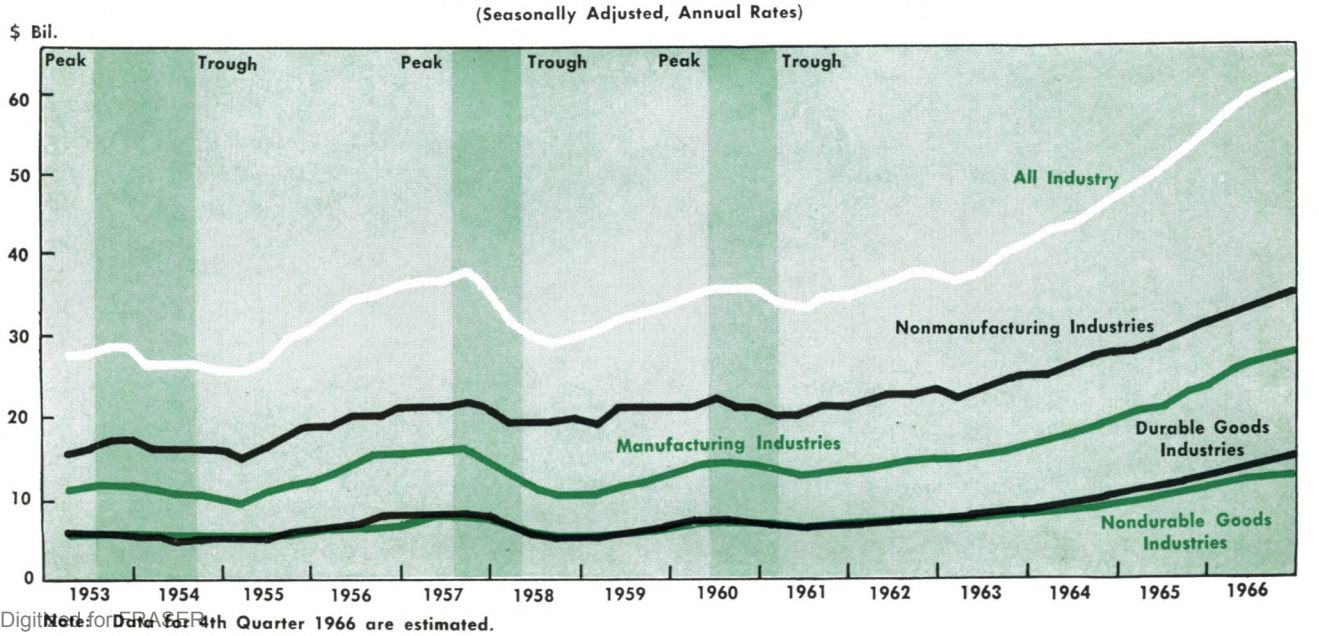
Do expenditures by all types of industries follow a pronounced cyclical pattern? Does the timing of peaks and troughs of expenditures vary substantially from industry to industry? Does the timing of expenditures of particular industries or groups of industries vary from cycle to cycle? Do the expenditures of any industry provide a reliable leading indicator of total expenditures? These are just a few of the interesting questions which may be illuminated by an examination of expenditures by major industrial sectors.

Determinants of Plant and Equipment Expenditures For many years economists have tried to specify precisely the factors which determine the volume of business investment in plant and equipment. The tentative conclusions which have emerged from empirical investigations have been useful to policy makers and at the same time have inspired researchers to push forward toward a more complete explanation of the investment cycle. As yet, there is no general agreement as to which explanatory factors are the most important. Nor do economists agree as to how best to describe the relationship between investment and its determinants. Studies of recent years, however, have proceeded along similar lines and some generalizations are possible.

First, research has suggested the kind of factors which help determine capital expenditures. Most studies assume corporate outlays to depend upon recent, current, and expected rates of output, current rates of capacity utilization, retained earnings, interest costs and/or credit availability. Some also assign importance to depreciation or obsolescence rates, to supply conditions in the machinery and equipment industries, and to the comparative costs of labor and capital.

Second, research has shed some light on the nature of the lag between the movement of the factors which influence a decision to invest and the actual investment expenditures. Recent studies suggest that investment expenditures depend not only on current

EXPENDITURES ON NEW PLANT AND EQUIPMENT
(Seasonally Adjusted, Annual Rates)



Note: Data for 4th Quarter 1966 are estimated.
Source: Securities and Exchange Commission.

and recent values of the explanatory variables, but also on their values in the more distant past. Proper specification of the lag structure, which is extremely important if useful results are to be found, requires that past values of the explanatory variables be assigned weights corresponding to their importance in determining current investment. This is extremely difficult to do, in part because the lag structure probably varies from industry to industry and from one explanatory variable to another.

The Broad Picture Plant and equipment expenditures vary significantly from one industry to another with respect to timing and amplitude of fluctuation. This suggests that lag structures and the relative importance of the explanatory variables differ somewhat from industry to industry. Industry differences in plant and equipment expenditures tend to offset each other as the various sectors are combined to form broader aggregates. As a result, major groupings of industries have similar patterns of plant and equipment expenditures. This is evident from the chart on the preceding page which shows expenditures by broad industry groupings.

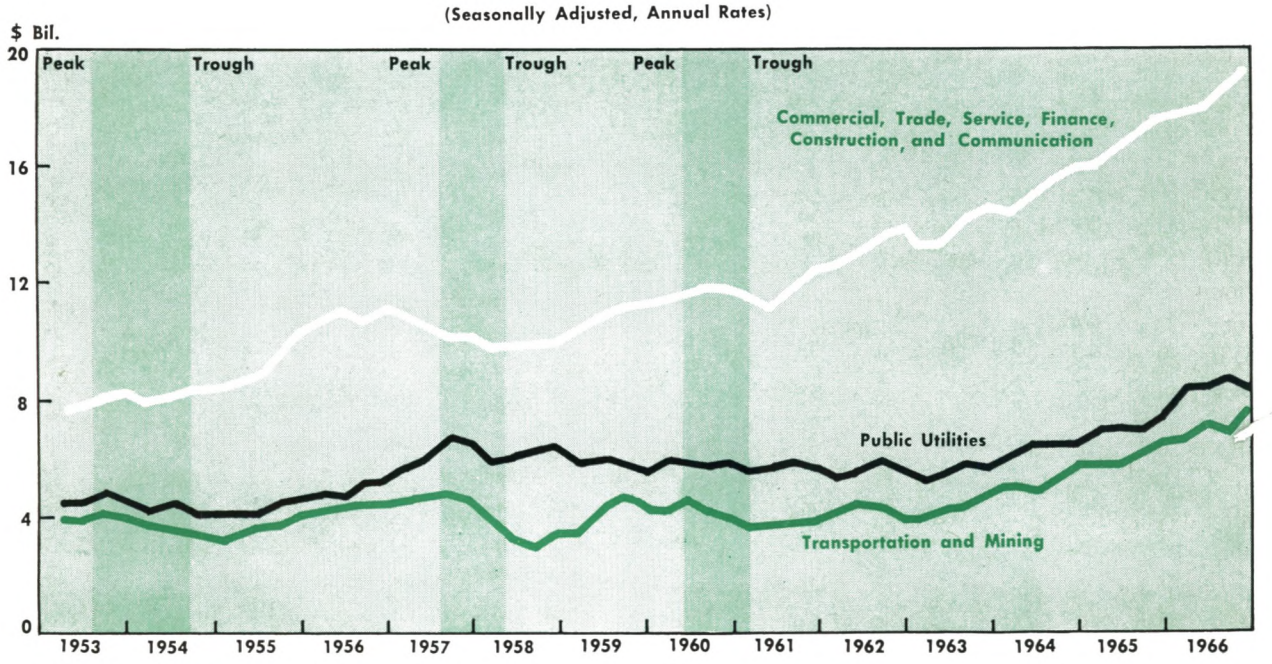
Considering the diverse nature of the industries involved, the turning points of spending by manufacturing and nonmanufacturing industries are surprisingly close. The upper and lower turning points of both series tend either to coincide or miss being coincident by only a single quarter. As might be expected, however, the amplitude of fluctuations in the manufacturing series is somewhat greater than for the nonmanufacturing series. Measured from specific turning points, expenditures by manufacturing concerns increased an average of 74% during the four expansion periods pictured on the chart, compared with an average increase of 44% by nonmanufacturing industries. During the four contractions, expenditures of manufacturers declined 23% while those of nonmanufacturers declined only 11%. Measured in absolute terms, however, the amplitude of fluctuation in both series was roughly the same.

Plant and equipment expenditures by manufacturers of both durable and nondurable goods have been of roughly the same magnitude over most of the postwar period and have generally fluctuated together. The turning points have been especially close at the troughs. The amplitude of fluctuation has been somewhat greater in the durable goods sector, but not as much greater perhaps as might be expected since the production of machinery and equipment, the stock in trade of a capital investment boom, is produced within the durable goods sector. It would seem that a focusing of demand on the heavy goods industries during a period of general expansion in plant and equipment spending would quickly bring the machinery and equipment industries to full utilization of capacity and lead to large scale expansion of their production potential.

EXPENDITURES ON NEW PLANT AND EQUIPMENT

ALL NONMANUFACTURING INDUSTRIES

(Seasonally Adjusted, Annual Rates)



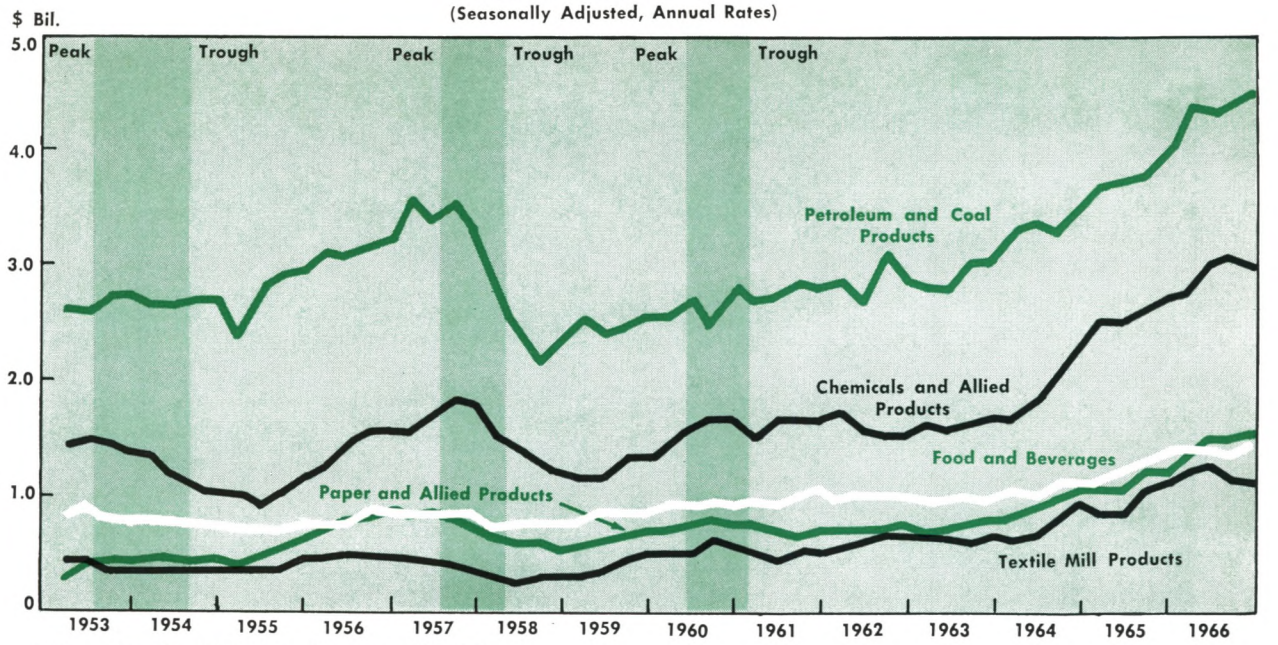
Note: Data for 4th Quarter 1966 are estimated.

Source: Securities and Exchange Commission.

EXPENDITURES ON NEW PLANT AND EQUIPMENT

NONDURABLE GOODS INDUSTRIES

(Seasonally Adjusted, Annual Rates)



Note: Data for 4th Quarter 1966 are estimated.

Source: Securities and Exchange Commission.

The heavy industries may, however, reach quite low capacity utilization levels during recession periods, thereby having considerable cushion for expansion. Moreover, the heavy industries may tend to regard a rapid buildup of demand as a transitory development which should be dealt with not only by expanding capacity but by allowing unfilled orders to pile up.

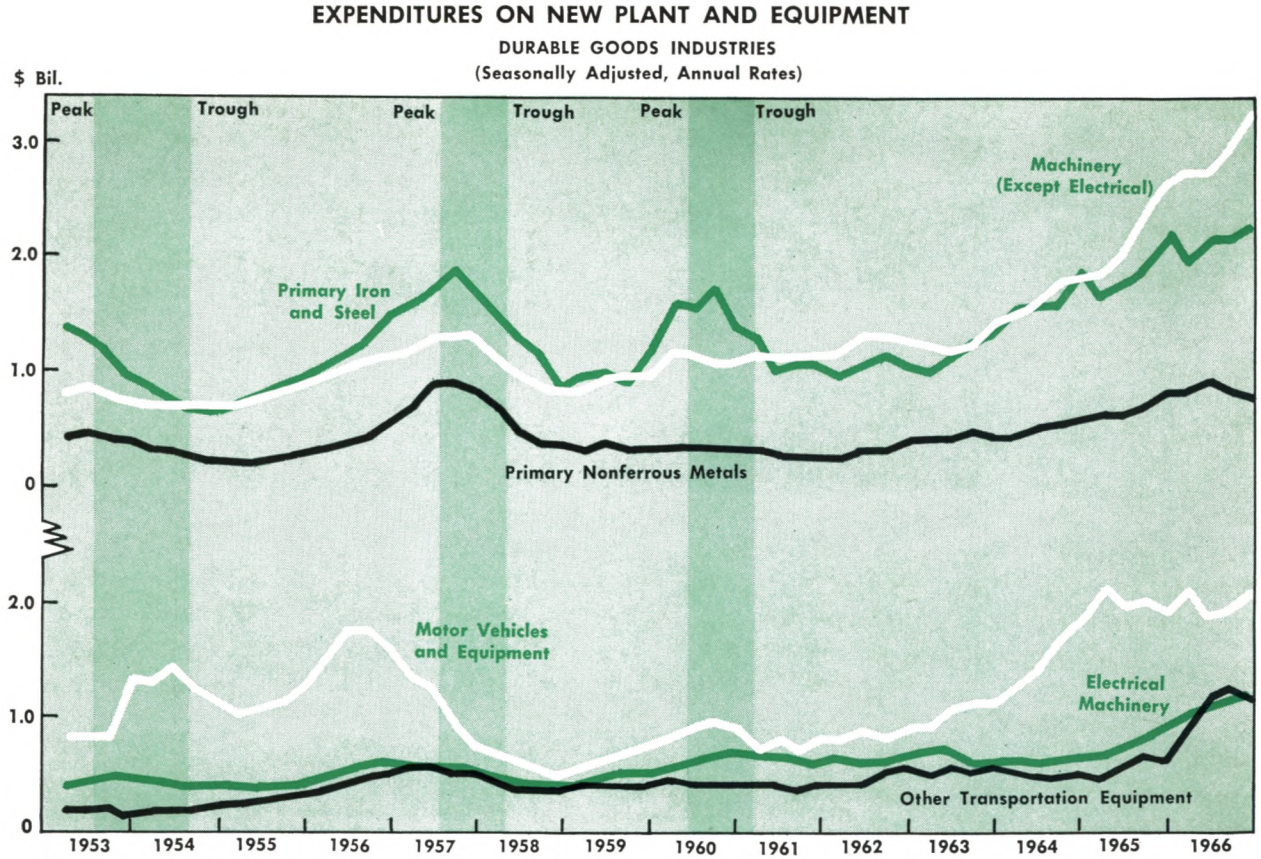
Nonmanufacturing Nonmanufacturing is a broad classification which includes a vast number of industries, differing markedly in function, size, location, and techniques of operation. Consequently, the considerable diversity among the components, revealed in the chart on page 8 is to be expected. Unfortunately, much diversity is obscured because detailed information on individual industries is not available and the categories pictured in the chart are, of necessity, rather broad aggregates.

The largest category, which includes commercial, trade, service, finance, construction, and communications amounted to $18 billion in 1966 and accounted for 30% of total plant and equipment expenditures. While this very broad category displays something of a cyclical pattern, its movement failed to conform to the cycle in general business several times during the postwar period. The series did not turn down at all, for example, during the 1953-54 recession, and the dip in 1961 amounted to little more than an aberration in a rather steady upward trend.

Expenditures by public utilities conformed fairly well to the business cycle until 1958 but seemed to be unaffected by cyclical developments in the period from 1958 to 1963. Expenditures declined throughout the 1958-59 expansion, remained approximately unchanged at the 1959 level until early 1963, and then began to expand vigorously. Apparently the plant and equipment boom of 1956-57 provided enough capacity to meet demand for several years.

Expenditures by mining firms, railroads and nonrail transportation industries are reported separately, but these are combined in the chart because individually they are not very large. Collectively, they conform quite well to the business cycle, due primarily to the influence of the transportation groups. Variation in expenditures by mining concerns is extremely small.

Nondurable Goods Industries The cyclical volatility of the nondurable goods group is due primarily to petroleum and coal products and to chemical and allied products. The cyclical pattern of expenditures by producers of petroleum and coal products is less evident as a result of omitting from the chart the 1948-49 recession. Expenditures dropped sharply in that period, rose sharply in the subsequent expansion and leveled off in the recession period of 1953-54. The only failure to conform to cyclical turning points took place during the recession of 1960-61 when expenditures continued to rise. Expenditures by producers of chemicals and allied products also failed to display the usual cyclical pattern in the latest recession. They merely leveled



Note: Data for 4th Quarter 1966 are estimated.
Source: Securities and Exchange Commission.

off in contrast to registering sharp declines in previous postwar recessions.

Of the minor industrial categories, expenditures by producers of paper and allied products show the most cyclical sensitivity, reflecting to a large extent the cyclical fluctuation in demand for packaging materials. Expenditures by textile producers also follow a cyclical pattern, but expenditures by producers of food and beverages, the demand for which remains fairly constant in both good and bad times, display almost no cyclical pattern.

Durable Goods Industries Expenditures on plant and equipment by most producers of durable goods exhibit a rather marked cyclical swing. It is apparent, however, from the above chart, in which the data are presented in two panels to minimize crisscrossing of lines, that expenditures by producers of nonferrous metals and transportation equipment other than motor vehicles failed to conform at all to cyclical developments for a number of years surrounding the 1961 recession. Moreover, expenditure swings in the other durable goods industries during the period were much less pronounced than in previous postwar cycles. In only one instance, the electrical machinery and equipment industry, did expenditures in the 1959-60 expansion equal or exceed expenditures in the boom of 1956-57. Apparently the boom of those years created enough capacity to enable most industries to meet, with a rather modest increase in plant and equipment expenditures, the bulge in demand associated with the 1959-60 expansion phase of the business cycle. The sluggish investment behavior of this period perhaps helps account for the tremendous capital spending boom which got under way in 1963.

The Most Recent Investment Boom The most recent investment boom has been unusual in its timing, duration, and amplitude. While total expenditures began to move up about two quarters after the trough in 1961, the boom did not gather a real head of steam until mid-1963, more than two years after the trough of the recession. This slow start may be attributed entirely to the manufacturing industries. In the nondurable goods sector, not a single industrial category showed any strength until early 1963, and in the durable goods sector expenditures by producers of primary iron and steel and of electrical machinery and equipment were particularly sluggish. In late 1963, however, the boom began to

resemble those of 1950-51 and 1955-56 in the pervasiveness of the upward movement. Expenditures by every industrial group for which separate information is available (except for electrical machinery and transportation equipment excluding motor vehicles) began to move up smartly.

As for duration, the current investment boom far exceeds even the boom associated with the Korean War. Toward the end of previous investment booms, the pervasive upward movement began to be interrupted as one industrial component after another peaked out. Scattered weakness was reflected after a lapse of several months in other sectors, and before the recession was too far advanced almost every industrial component had turned down. Scattered weakness has begun to appear in the present boom. Taking into account first quarter 1967 Commerce-SEC estimates, which are not recorded on the charts, it appears that all components in the nonmanufacturing sector are continuing to move up. In the nondurable manufacturing sector, however, expenditures by producers of petroleum and coal products appear to be leveling off while expenditures by chemical and textile producers seem to have turned down. In the durables sector, a pronounced slowdown has occurred in expenditures by producers of primary iron and steel. Expenditures by manufacturers of motor vehicles and other transportation equipment have leveled off, and expenditures by producers of primary nonferrous metals have apparently turned down. The Commerce-SEC figures indicate a sharp decline in nonelectrical machinery in the first quarter of 1967.

While part of the amplitude of the current boom is explained by its long duration, the extent of the upward movement is nonetheless quite impressive. Measured in absolute terms from lower turning points of the various series to recent peaks or to fourth quarter 1966 in cases where peaks had not occurred, the current boom can be shown to have exceeded previous postwar experience in every industrial sector. Measured in percentage terms growth in a few industrial sectors falls behind experience in the Korean War period and in the 1954-57 boom, however. When the various industrial sectors are combined into appropriate aggregates, the percentage growth in the broad groupings is seen to exceed previous postwar experience in every case except durable goods manufacturing. This is evident in the following table.

Percentage Increase in Plant and Equipment Expenditures in Postwar Expansion Periods

(Measured from Specific Troughs to Specific Peaks)

Industrial Classification	1949-53	1954-57	1958-60	1961-66
All Industry	62%	47%	23%	87%
Nonmanufacturing	48	38	15	74
Manufacturing	89	61	39	106
Durables	141	74	52	140
Nondurables	66	51	33	81

Summary and Conclusions Plant and equipment expenditures in most industrial sectors for which data are available follow discernible cyclical patterns. The patterns, however, vary substantially from industry to industry as to both amplitude and timing of fluctuation. But in view of the differences between the industries, the similarity in expenditure patterns is more impressive than the diversity. Moreover, when the various industries are combined into broader industrial classifications, the aggregative series trace very pronounced cyclical patterns whose turning points are virtually coincident.

None of the expenditure patterns of individual industrial sectors constitutes a reliable leading indicator of total plant and equipment expenditures. Nor do individual industry expenditures produce a series superior to the aggregative series in diagnosing turning points of the business cycle. Turning points of individual industry series tend to be erratic and to vary substantially from cycle to cycle. The individual industry series are, nevertheless, quite useful when examined together. Broad upward movement of a vast majority of the series, for example, indicates vigor in the investment boom while a turndown of some of the series suggests that the strength of the boom is beginning to wane.

In conclusion, the evidence of the postwar period suggests that the broader and more vigorous the boom in plant and equipment outlays, the more severe the subsequent decline. The expansion of plant and equipment expenditures in the 1955-57 boom was broadly based and quite rapid. The subsequent decline in expenditures was the most pronounced of the postwar period. In contrast, the expansion of 1958-60 was very mild and expenditures in many industrial sectors did not rise at all. The subsequent cutback in outlays was very mild, and significantly, perhaps, the series which did not rise in the boom period did not fall during the contraction phase of the cycle.

THE FIFTH DISTRICT

WAGE DEVELOPMENTS 1966

Wage settlements negotiated in the Fifth District in 1966 showed considerable diversity. Generally, those completed in the earlier part of the year conformed to the 3.2% guideposts suggested by the National Administration. As the year progressed, however, and particularly after the airlines settlement in August, contracts tended to produce both higher hourly increases and more liberal fringe benefits.

Many unions sought increases based on estimates of productivity gains which were substantially higher than those underlying the Administration's guideposts. Many also emphasized the need for settlements which would offset the adverse purchasing power effects of the 3.3% rise in the Consumer Price Index in 1966. This also brought pressure for cost-of-living escalator clauses in new contracts.

From the employer's standpoint, ever-tightening labor markets exerted unusual pressure in the year's bargaining sessions. In order to expand, or even retain, their work forces, many felt constrained to agree to extra liberal contract settlements. Employers also had to consider two other factors: the rising costs of other inputs and the continuing difficulty of passing on higher costs by raising prices.

A Closer Look Negotiations were conducted in some very important Fifth District industries. The textile industry, the largest employer in the District, granted pay raises ranging between 4% and 10% and averaging about 5%. Construction workers in Maryland and the District of Columbia won increases of 10 to 32 cents an hour. State hospitals in Virginia granted their employees raises of 5% to 20% and transit workers in some major cities in the northern part of the District received increases of 4 to 10 cents per hour. Workers in several of the durable goods industries won pay hikes in the range of 4 to 15 cents. Scattered wage settlements in wholesale and retail trade involved increases ranging between 4 and 12½ cents per hour.

What's Ahead Contract negotiations in the current year involve, for the nation as a whole, more workers than in any year since 1959, and nearly twice as many as in 1966. Trade agreements expire in a number of major industries—among them, trucking, autos, farm equipment, rubber, meat packing, and railroads—and involve some of the nation's most important unions. Settlements arrived at in late 1966 will doubtless set a pattern for some of these negotiations, but other factors will also play a role. The higher minimum wage that resulted from 1966 Federal legislation may influence union demands as well as hourly rates in nonunionized sectors. But diminished inflationary pressures and a dimming corporate profits outlook may deprive union negotiators of bargaining wedges used effectively last year. The reduced pace of the economy's advance and an associated slackening in the demand for labor, if they continue, may also be important factors. Contracts negotiated with the Teamsters and with the railroad unions will undoubtedly have considerable impact in the District.

The Minimum Wage Law This law went into effect February 1. It increased the minimum wage of previously covered workers to $1.40 and extended coverage at a lower figure to certain agricultural workers and to employees in a number of service and wholesale and retail trade establishments. Those firms which employ only family labor are exempt from the Act as are some businesses whose gross sales do not exceed certain specified minimums. Farmers who hire less than 500 man-days in any calendar quarter of the preceding year are also exempt.

Under the new law the minimum hourly wage of agricultural employees is $1 in 1967, $1.15 in 1968 and $1.30 the following and succeeding years. The $1 minimum will also apply to other newly covered employees in 1967, but the minimum for this group must be increased 15 cents an hour each year until it reaches $1.60 an hour. The law is expected by many to result in some upward adjustment of wages of many workers who presently receive more than the minimum. Other workers who are not covered will probably also benefit indirectly as a result of increases received by holders of similar jobs who are covered.