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IN THIS ISSUE

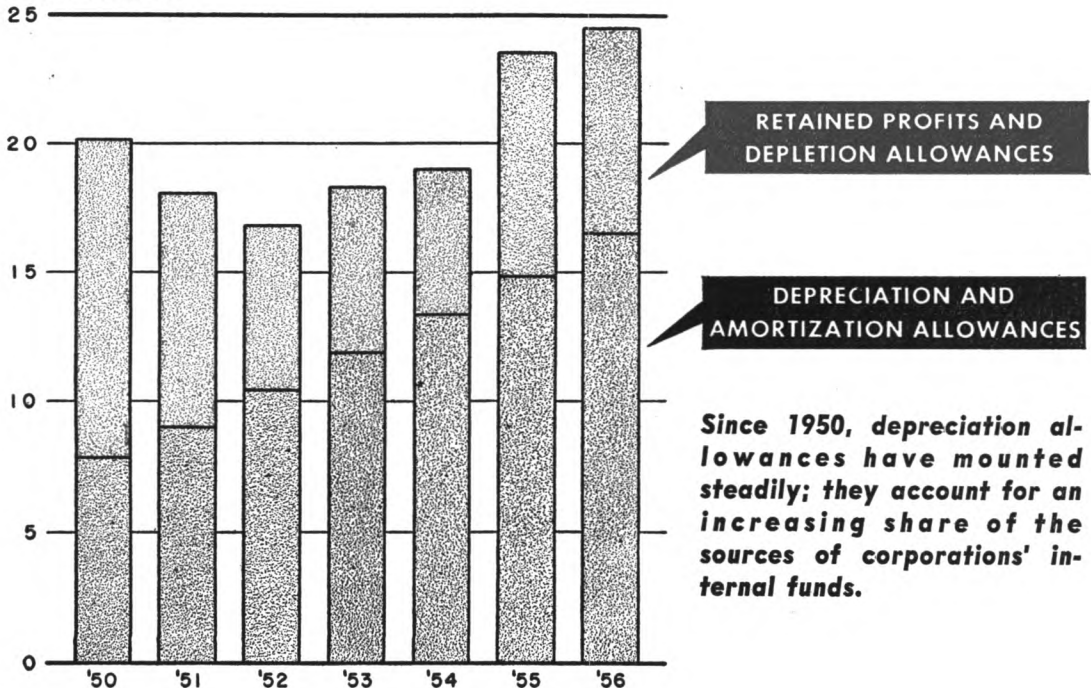
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In a Supplement to this issue:

LEXINGTON and EASTERN KENTUCKY, last of a series on CROSS SECTIONS of the Fourth Federal Reserve District.

SOURCES OF INTERNAL FUNDS OF CORPORATIONS

Billions of Dollars



Since 1950, depreciation allowances have mounted steadily; they account for an increasing share of the sources of corporations' internal funds.

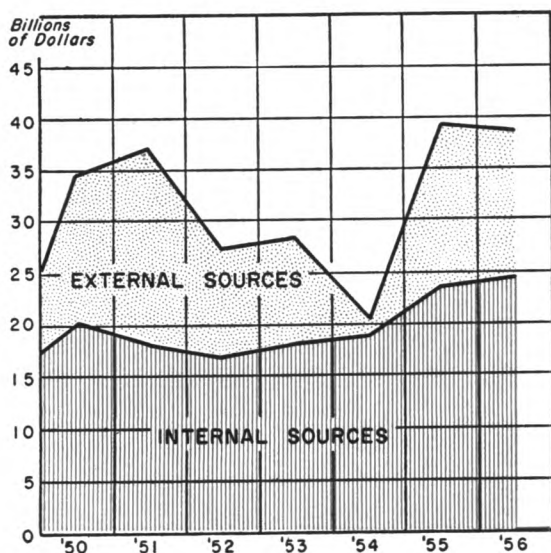
Depreciation Allowances

As a Source of Corporate Funds

FINANCIAL PRESSURES brought about by the current wave of industrial expansion programs have forced renewed attention to the relative roles played by the various sources of funds available to corporations. Within this framework, an increased importance of the part played by depreciation allowances represents one significant development that should not be overlooked. It has implications both for individual enterprises and for broader questions of public policy.

Last year's pattern of events provides an appropriate springboard for a re-examination

Of the sources of funds used by corporations, the external sources tend to fluctuate much more than the internal sources.



of the role of depreciation allowances in current practices of corporate financing.

Although business prospered in 1956, the record-breaking plant and equipment outlays of \$30 billion, on top of increased working capital requirements of \$12 billion for inventory and receivables, severely tried the financial resources of many corporations. The increase in working capital was necessitated by increased inventory and receivables, brought about by record production, sales, and rising prices in the case of the inventory gain, and by slower collections, in the case of receivables. However, outlays for plant and equipment, up from 1955 by nearly one-fourth, were the biggest source of financial stringency. To finance these current needs as well as capital improvements, nonfinancial⁽¹⁾ corporations used \$39 billion in funds from internal and external sources in addition to reducing their holdings of cash and U. S. Governments by approximately \$5 billion.

The principal sources of corporate funds are summarized in Table 1 and are shown by an accompanying chart. It can be seen that since 1950, external sources of funds have been far more volatile than internal sources. This can be explained, in part, by the fact that external financing for many firms will be used only if internal funds are insufficient.

Despite the huge amount of funds generated internally last year, firms were forced to rely

(1) Nonfinancial corporations exclude all banks and insurance companies. However, sales and consumer finance companies are included.

more heavily than in any period since 1950 on banks and the capital market. A total of \$14 billion was raised, against the previous high of \$11.7 billion in 1951. Bank loans provided \$6 billion and new security issues, net of retirements produced \$8 billion, with the largest portion of the total coming from bond offerings. Other sources provided \$1.5 billions, but there was a net drain of \$1 billion in the accrual of funds to meet Federal income taxes, as opposed to 1955 when accruals provided \$2.8 billion of funds.

Internal sources of funds, although they were more stable than external sources, did experience a rather wide swing during the years under discussion. For example, in 1952 only \$16.8 billion was provided internally as opposed to a high of \$24.5 billion in 1956. More important, however, is the change in composition. As shown by the cover chart and by Table 1, there was a decided decline in relative importance of retained profits as a source of funds, while there was an absolute

and relative gain in depreciation and amortization allowances. Depreciation allowances, beginning in 1952, supplied more funds in each year than retained earnings.

This relative shift in importance between depreciation allowances and retained earnings has and will continue to have rather important repercussions for both the Government and business. Possible explanations of the shift and some of its implications may now be considered.

Reasons for the Shift

One possible reason for the decline in importance of retained earnings might lie in the effects of ratios of dividend pay-outs. (The dividend pay-out ratio for any given year is the dividend payments divided by the corporate profits after taxes.) However, an examination of dividend payments in relation to all corporate profits after taxes (see Table 2) shows that, with the exception of 1950, the

Table 1
SOURCES OF FUNDS OF NON-FINANCIAL CORPORATIONS
1950-1956
(Billions of dollars)

	1950	1951	1952	1953	1954	1955	1956*
Internal Sources:							
Retained profits and depletion allowances . . .	12.4	9.1	6.4	6.5	5.7	8.8	8.0
Depreciation and amortization allowances . . .	7.8	9.0	10.4	11.8	13.3	14.8	16.5
Total internal sources	20.2	18.1	16.8	18.3	19.0	23.6	24.5
External Sources:							
Change in Federal income tax liability	7.2	4.4	- 2.8	.4	- 3.5	2.8	- 1.0
Other liabilities	1.0	1.9	2.4	2.2	.3	1.7	1.5
Change in bank loans and mortgage loans . . .	2.6	5.4	3.1	.5	- .9	4.4	6.0
Net new issues	3.7	6.3	7.9	7.1	5.9	7.0	8.0
Total external sources	14.5	18.0	10.6	10.2	1.8	15.9	14.5
Total Sources	34.7	36.1	27.4	28.5	20.8	39.5	39.0

* Preliminary estimates

Sources: U. S. Department of Commerce and Council of Economic Advisors

ratio did not vary greatly from an average of about 55 per cent. This suggests that the explanation of the decline in relative importance of retained earnings and the corresponding increasing significance of depreciation write-offs must be found in the continued growth of the latter.

There are three general reasons for the growth of depreciation allowances in each year since 1950. First is the fact that so much new plant and equipment has been put in place in the post-World War II period that an accelerating rise in write-offs is assured so long as the high rate of expansion continues. Since 1950 approximately \$161.4 billion has been spent on modernization and expansion of fixed assets. Depreciation write-offs are now reflecting this huge amount of spending.

A second reason for increased depreciation allowances since 1950 is the five-year rapid amortization provisions on defense facilities as permitted by law. This program has now reached its peak; the current rate of write-offs is now in excess of \$3 billion a year, but it probably will decline to about \$2 billion by 1959. The net effect of rapid amortization of defense facilities and postponement of income taxes to later years is to lower the currently reported net income available for dividends. Those companies permitted to charge depreciation on a five-year basis may find that the useful life of the property will prove to be several times that long; however, in later years no further charges will be available as allowable deductions, so that both earnings and taxes will increase correspondingly.

A third reason for increased depreciation allowances is the stepped-up, or accelerated, rates of depreciation as authorized by revisions in the Internal Revenue Code of 1954. The provisions of this Act for accelerated depreciation on new plant and equipment offer two alternatives to the taxpaying firm. They are: (1) sum of the years' digits; and, (2) a fixed percentage of a declining balance.

Under the first method, the sum of the years' digits, to determine the yearly depreciation it is necessary to add up the number of

years of useful life of the asset to be depreciated. For example, an asset with a five-year life would add to fifteen (5 + 4 + 3 + 2 + 1). Using this number as the denominator of a fraction, the yearly depreciation is found by supplying a numerator based on each respective year, beginning with the largest figure. Thus the first year would be 5/15; the second, 4/15, and so forth. If a \$1,500-asset were to be depreciated, the annual charges would be \$500, \$300, \$200, and \$100, respectively.

The second method, a fixed percentage of a declining balance, operates differently. The percentage rate each year is held constant, but it is applied to a declining book value. Using the same example, the percentage rate is determined by doubling the straight line rate $[(100 \div 5) \times 2]$. Double the straight line rate is the maximum rate permissible under the 1954 Code. The \$1,500-asset would be written off as follows:

Year	Declining Balance		Rate		Annual Depreciation
1	\$1,500.00	×	40%	=	\$600.00
2	900.00	×	40	=	360.00
3	540.00	×	40	=	216.00
4	324.00	×	40	=	129.60*
5	194.40	×	40	=	194.40

* Assuming there was no change back to the straight line method.

The potential impact of these techniques permitting accelerated depreciation is far greater than the five-year rapid amortization provisions because they are available for all *new* assets acquired after 1953. Available data, although scant, suggest that these methods may prove very popular. It has been estimated that in 1954 alone, possibly as much as 4 percent of all corporate depreciation deductions were based on these new provisions.⁽²⁾ This meant a tax postponement for 1954, amounting to perhaps \$100 to \$150 million. The size of the tax deferral will snowball rapidly as more and more new facilities are depreciated by using the 1954

(2) While 4 percent may seem rather unimpressive, it must be remembered that 1954 was the first year of operation. Only new assets purchased during 1954 were eligible for the revised provisions. It would seem that a sizeable portion of the new assets put in place during 1954 came under the new Code changes.

changes. Depreciation write-offs would increase even more rapidly if pending legislation applying the same privileges to purchases of old equipment is enacted.⁽³⁾

Implications of Accelerated Depreciation Policies for the Firm

Before World War II, larger depreciation charges during the early years of the life of a fixed asset than during the later years of its life was supported by the following reasoning. It was claimed that the cost of the use of a fixed asset includes depreciation and repairs; the sum of these charges should be a fairly uniform amount year after year. However, repairs tend to increase with age, and therefore, the depreciation charges should decrease in order to bring about a uniform total charge; so ran the argument. Critics, however, expressed doubt that the two sets of charges offset each other as neatly in practice as in theory.

After World War II another theory evolved. It was stated somewhat like this: Since management cannot foresee conditions which will exist over the entire life of the asset, the advisability of making capital expenditures is often determined by shorter-term prospects; therefore, depreciation should be highest in the earlier years.

A third argument has been advanced in the postwar period. This concept stresses the expansion motive, primarily for small business. Larger depreciation charges in the earlier years of the life of the asset tend to result in lower incomes; thus taxes are postponed, enabling the firm to expand more rapidly. This argument tacitly assumes expansionary periods.

In connection with the last-mentioned line of thought, it should be noted that accelerated depreciation has different effects on firms that are expanding, constant, or decreasing in

size. For the firm that is expanding, it is possible for the amount of deferred tax payments to increase steadily as expansion proceeds. This is because newer assets are depreciated more rapidly in the earlier years, and purchases of fixed assets are made in sufficient volume to increase the firm in size, thereby permitting further rapid write-offs. This places the Government in the position of extending the firm an interest-free "loan" which is constantly increasing in size as long as the new plant and equipment are purchased. Thus there is substance to the argument that expansion can be promoted by accelerated depreciation.

If a firm is no longer expanding rapidly, but is almost stable, the amount of tax deferment built up in the early years of expansion or adoption of an accelerated depreciation method will remain essentially constant. This means that the Government has extended the firm, in effect, an interest-free "loan" for an indefinite time period, although the size of the "loan" does not change much.

In a firm where operations are contracting, taxable income may increase because there is less re-investment in depreciable assets. Therefore, the deferred tax payments will rapidly catch up with the firm since depreciation allowances will become less because of earlier heavy charges. Of course it is possible that the deferred payments may not materialize because of deficits.

The effects of accelerated depreciation on any firm can be ascertained only after a firm's stage of operations is determined, that is, whether it is expanding, stable, or declining in size. This makes investment analysis more difficult since both income statements and balance sheets are affected.

Implications of Accelerated Depreciation Policies for the Entire Economy

When the economy is operating at relatively high levels of output, accelerated depreciation may turn out to be a de-stabilizing force. If the investment outlook is favorable, greater

(Continued on Page 9)

(3) The accelerated depreciation provisions of the 1954 Code were proclaimed to be much needed measures for small business tax relief. However, there is doubt in the minds of some small business authorities that these provisions have proved of much benefit to small business. Their doubt stems from the fact that the smaller firms frequently use secondhand plant and equipment.

Farm Prices and the Consumer

FARMERS must be viewing with mixed emotions the possibility that prices for their products may be considered a cause of current inflationary pressures. Having borne the brunt of a declining price level for a number of years, the farmer now finds that a limited price recovery for his raw food materials has been followed by a rise in retail food prices to a new record high.

A superficial observation showing the recent rise in farm prices concurrent with near records in food prices might, at first, seem to spotlight agriculture as the villain in the food basket. A look further back in the record, however, discloses that since 1951, at any rate, farmers have been the victims and not the initiators of spiraling prices. At the same time that the consumer is tempted to place the agricultural industry "on the carpet" because food prices are high, the farmer is still confronted with the problem of exchanging cut-rate produce for machinery, motor vehicles, and other non-farm production goods which have advanced virtually without interruption over the years.

Furthermore, it is apparent that benefits from the years of decline in the farm price level were not fully reflected to the consumer during the period from 1952 through 1955. The gap between prices received by farmers and food prices at retail tended to widen, as shown by the accompanying charts. Such widening margins were a measure of the gradual but persistent price or cost advances in food marketing channels. As a consequence, recent price improvement at the farm has

been superimposed upon a record level of prices for the multitude of goods and services performed by the marketing agencies.

Farm Prices Have Risen

Prices of farm products, it is true, have strengthened significantly since last fall. Part of the price gain reflects seasonal influences, but there has also been a considerable year-to-year gain. So far in 1957, prices of farm commodities have averaged $2\frac{1}{2}$ percent above a year ago. In mid-1957 the farm-price level reached a 35-month high, representing a net gain of 11 percent from December 1955.

What is not shown by such comparisons, however, is that prices received by farmers were the lowest in nearly a decade at the end of 1955, having declined steadily for four years. The gains from this long-time low level have offset only a part of the losses experienced in previous years.

Are farm prices contributing, then, to the current inflation? In a sense they have been doing so, if one is to look back only on the past $1\frac{1}{2}$ years. But on balance over the past 5 or 6 years, they have served, rather, as a major offsetting factor to the price inflation experienced in the non-farm economy.

Non-farm Prices Have Risen Longer

Various measures of non-farm prices are available; each will tend to show steady or rising prices over the span of years when farm prices were declining. In addition, fur-

ther increases occurred in non-farm prices concurrent with the more recent improvement in farm prices. The extent to which farm and non-farm prices have moved in converse directions has especial significance to farmers. The amount of non-farm goods, which the proceeds from a bushel of grain or a can of milk will buy is even more important to the farmer than the selling price of the farm commodity.

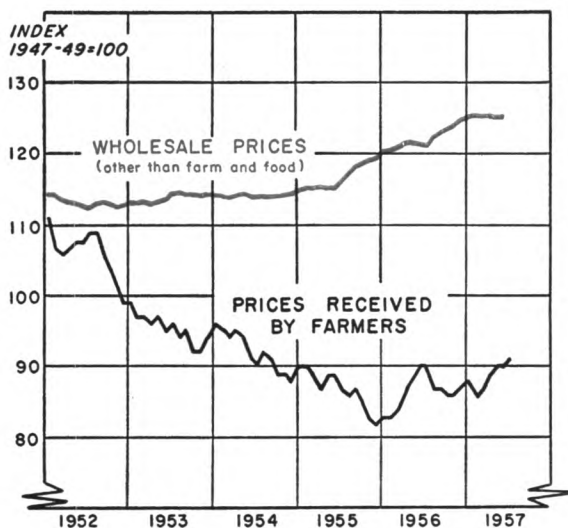
Thus, the general level of farm prices has recovered sufficiently to bring it back to its position of nearly three years ago. But what is a unit of farm produce now worth in buying power as compared with its buying power in 1954? It is worth decidedly less; it now takes 105 bushels or pounds of farm produce to buy what 100 units would have bought in 1954.

In the following table, selected prices are compared with those of three years ago. While prices of farm products were slightly short of the three-year-ago level, non-farm goods purchased by farmers have shown significant advances. Some items which originate from farm products, such as processed feed, have declined in price (not shown in table); otherwise the buying power of farm commodities would have weakened even more over the past three years.

**SELECTED PRICES
CHANGE FROM THREE YEARS AGO**

	Percent Change
Prices received by farmers	- 0.8%
Prices paid by farmers for:	
All goods and services	+ 5.4
Food and tobacco	+ 1.8
Clothing	+ 4.9
Motor supplies	+ 4.9
Motor vehicles	+13.2
Farm machinery	+11.5
Building and fencing materials ...	+11.8
Labor	+ 8.9
Fertilizer	- 2.6
Twine, forks and other supplies ...	+ 5.1

Farm prices dropped for four years before any significant recovery; non-farm prices trended upward throughout this span of years.



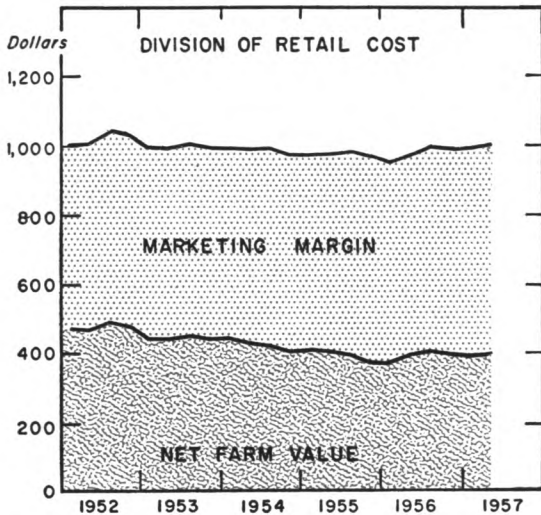
Source of data: U. S. Departments of Agriculture and Labor.

Going back somewhat further, to early 1952, when farm prices were only moderately below their record high, we find an even more drastic measure of the erosion that has taken place in the purchasing power of the commodities farmers sell. It would now take 125 units of farm produce to buy what 100 units would have exchanged for in 1952—this in spite of the improvement in farm prices registered over recent months.

More Than Food in the Market Basket

A primary concern of the consumer is how much his food is going to cost. Retail food prices have risen through most of 1957. When food costs reach record levels and the Federal government is still actively pursuing a policy to bolster depressed farm prices, the consumer is understandably confused. As has been explained, however, prices of raw food material at the farm are far from a record level. To answer this seeming inconsistency it is necessary to recognize that agriculture receives an appreciably smaller

In a typical market-basket of food, the cost of marketing services is greater than the net farm value of the raw food materials.



Source of data: U. S. Department of Agriculture.

share of the consumer's food dollar than does the combined group of processors, retailers and other marketing agencies.

An accompanying chart shows the retail cost of a typical market-basket selection⁽¹⁾ of farm foods for the period 1952 to mid-1957. The cost is divided to show farm value of the raw material and the portion of the costs accrued to processing, distributing, retailing and other elements of the "marketing margin." The retail cost of this fixed market basket of goods has fluctuated through a relatively narrow range over the past 5½ years. The relative stability, however, has been clearly a result of a declining trend in the farm value offsetting a steady upward trend in marketing costs. Were it not for the lower cost of raw food materials at the farm, the retail cost of the market basket would have established a long series of new records through this span of time.

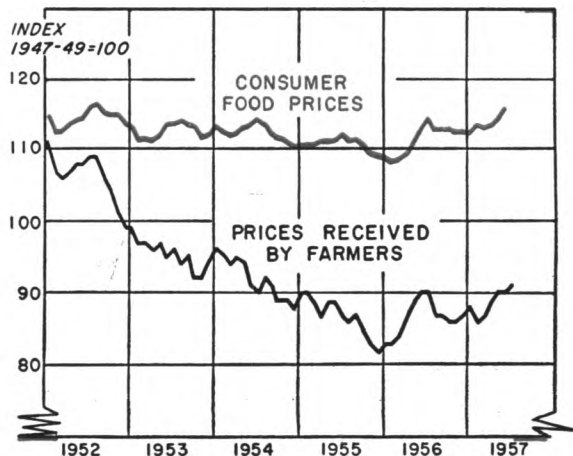
Another measure of comparison is afforded by the chart showing an index of prices re-

(1) The selection and quality of foods included in the market basket is typical of the average quantities purchased by urban wage-earner and clerical-worker families in 1952.

ceived by farmers together with the retail food price component of the consumer price index. (The two series are not strictly comparable in all respects, for the purpose at hand; for example, there are non-food items included in the index of farm prices, there are imported food items in the consumer price index, etc.) Nevertheless, it is evident that some inflationary elements, of a non-farm character, have been at work on food prices during the years of receding prices at the farm.

It is beyond the scope of this discussion to pass judgment upon the equities or necessities involved in the rising costs of food processing and food distribution; nor is it possible here to trace the path of price and wage increases among the various parties involved at different stages of the economic process. A technical analysis would require, among other things, a thorough study of gains in productivity of capital and labor in terms of how much of the gain has been retained as increased wages by labor, how much has been absorbed as return to investment, and the extent to which any residual may have been passed on as price concession to the consumer.

Retail food prices have recently risen to a new high, following a moderate recovery in prices of farm products.



Source of data: U. S. Departments of Agriculture and Labor.

Short of such a detailed analysis, however, it is essential for the consumer at least to recognize that the economic route of the food supply, from the soil to the dinner table, has become longer and the channels more tortuous. Amid the complexity of economic processes that are responsible for the historically high price of food, there are two aspects in particular of which the consumer should be aware.

In his role as a "market" for the output of the nation's food firms, the consumer should recognize that each element of "built-in maid service" which he demands (or accepts) adds to the price of food. Pre-mixed pastries, heat-and-serve meals, ready-to-serve desserts and many frozen foods require special equipment and extra labor for which the housewife must pay. These are great con-

veniences, especially for the "working wife," but it should also be realized that they represent a service and not a food. Such conveniences, whether they be regarded as necessities or embellishments, inevitably boost the price of basic food items.

It should also be recognized that general advances in the nation's wage structure are reflected in the earnings of millions of workers in the food industry. The cost of labor is the largest single element in the food marketing bill. About 30 percent of the food dollar is devoted to the labor required (excluding farm labor) to prepare foods in the form apparently desired by consumers. By comparison, only 39 percent of the food dollar goes to the farmer for raw food materials.

Depreciation Allowances

(Continued from Page 5)

capital expansion is likely to be induced than otherwise might occur. During a "boom" period, inflationary pressures may continue to mount because of the postponement of taxes and the strong inducement to expand expenditures for plant and equipment, thus intensifying the "boom." This suggests that, from the standpoint of economic stability, accelerated depreciation provisions may be inappropriate during periods of intensive utilization of resources.

On the other hand, it appears that accelerated depreciation allowances could be used to stimulate capital expenditures by business during periods of recession, by permitting firms to recover much of their capital outlays in the earlier years of the life of newly-acquired assets.

Because of the important effect of depreciation allowances on the capital-expenditure decisions of business, it is clearly possible that a counter-cyclical use of accelerated depreciation policies could make a positive contribution toward smoothing out the ups and downs

of general business that stem from variations in plant and equipment spending.

Table 2

**CORPORATE PROFITS AFTER TAXES,
DIVIDENDS, AND UNDISTRIBUTED PROFITS
FOR ALL PRIVATE CORPORATIONS
1950-1956**
(Billions of dollars)

Year	Corporate Profits after Taxes	Dividend Payments	Undistributed Profits	Payout Ratio
1950	22.1	9.2	12.9	41.6
1951	18.7	9.1	9.6	48.6
1952	16.1	9.0	7.1	55.9
1953	16.7	9.3	7.4	55.6
1954	16.4	10.0	6.4	60.9
1955	21.1	11.2	9.9	53.0
1956	21.5	12.0	9.5	55.8

Sources: U. S. Department of Commerce

NOTES

Among the articles recently published in *Monthly Business Reviews* of other Federal Reserve banks, the following may be of special interest to our readers:

“Renaissance of the Commercial Paper Market,” Federal Reserve Bank of Kansas City, August 1957.

“Federal Finance in Fiscal Year 1957,” Federal Reserve Bank of New York, August 1957.

“Discount Policy: 1940-1957,” Federal Reserve Bank of Minneapolis. (Although this article refers specifically to the history of the discount rate in the Ninth Federal Reserve District, the broad outlines of the story would apply to other districts as well.)

Copies may be obtained by writing to the Federal Reserve Bank named in each case.

Note also a recent policy statement:

“Winning the Battle Against Inflation”

by William McC. Martin, Jr.

Chairman, Board of Governors of the
Federal Reserve System

A statement before the Committee on Finance of the U. S. Senate, August 13, 1957. (Preprinted from the *Federal Reserve Bulletin* for August 1957)

Copies of this statement may be obtained by writing to the Board of Governors of the Federal Reserve System, Washington 25, D. C.

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