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## 4. Direct Placements

Direct placements are defined by convention to include issues of more than one-year maturity sold without public offering, but to exclude bank term loans and mortgages. These two exclusions are in a sense arbitrary since no distinction in principle can be made between term loans, mortgages, and so-called direct placements. To limit the scope of our study as well as to follow conventional usage, however, we have accepted the familiar terminology. Furthermore, we have restricted our study to debt instruments without equity features.

The major growth of direct placements has come in the last thirty years. Between 1900 and 1933 corporate direct placements comprised only 3 per cent of all corporate debt offerings. By 1935 this ratio had risen to 29 per cent for industrial, financial, and service industries, but it still remained relatively low in rails and public utilities. As Chart 3, above, shows, the importance of this financial procedure had grown greatly by 1950. Between that year and the end of 1961, \$42.4 billion was borrowed through this channel, an amount representing 46 per cent of total corporate debt issues. In the industrial-financial-service sectors the importance of directly placed debt offerings has been even more striking. From 1947 through 1951, direct placements averaged 85 per cent of total debt offerings in this group of industries. The figure has since fallen, but it stood above 70 per cent in both 1962 and 1963.

The economic contribution of the innovation of direct placements was clearly of tremendous importance. As Cohan stated, this procedure "made long-range funds available to a whole new range of borrowers—especially those who were relatively small or unknown or who had reasonable but unconventional arrangements in mind," so that a public bond offering would not have been feasible.

### *Scope and Procedure*

As in the case of the mortgage market, we wished to evaluate the yield-determining characteristics of direct placements and to utilize these in

constructing time series of yields according to homogeneous classifications of issues. Since data permitting such a study are not publicly available, it was necessary to go directly to major lenders and copy the needed information, item by item, from their records. We have attempted to obtain a 100 per cent sample of all direct debt placements from twenty-two of the thirty principal lenders, over the period from January 1, 1951, through December 31, 1961. The overwhelming bulk of direct placements by volume are made by the life insurance companies, and twenty-one of the twenty-two lenders in our sample were such companies. The other lender was a large pension fund.

### *Findings*

#### YIELD-DETERMINING VARIABLES

On the basis of interviews with practitioners in the market for direct placements, Cohan selected eighteen variables which might prove influential in determining yields. These were used as independent variables in twenty-two cross-section regressions, one for each six-month period from 1951 through 1961.

Table 4 shows the average influence of each of the six most important variables on industrials in a typical half-year. The figures

TABLE 4

#### *Influence of Six Variables on Yields of Direct Placements, Industrials*

| Independent Variable                                   | Maximum Influence on Yield |                 |
|--|----------------------------|-----------------|
|  | In % of Yield              | In Basis Points |
| 1. Total capitalization                                | -31.8                      | -127            |
| 2. Times interest earned<br>(five-year average)        | -10.5                      | -42             |
| 3. Earnings before interest<br>and taxes               | 8.9                        | 35              |
| 4. Size of issue                                       | -7.5                       | -30             |
| 5. Maturity  | -6.1                       | -24             |
| 6. Average term (including<br>effects of amortization) | -5.4                       | -22             |

in the first column show the percentage by which the yield would vary as between different direct placements, assuming that in the time observed their characteristics with respect to any particular variable differed throughout the range of that variable's values, and that there were no differences between the placements with respect to other variables. Thus if the shortest maturity were five years and the longest twenty-five years during the half-year chosen, the longest term placement would have yielded about 6 per cent less (not six percentage points less!) than the shortest, assuming that other characteristics of the two placements were identical.

Three of these variables (1, 3, and 4) are measures of the size of the borrowing firm, or are commonly correlated with size. Since the intercorrelation among them is very high, their separate effects cannot be precisely determined. Capitalization and size of issue are, as might be expected, inversely correlated with yield; earnings, curiously, exhibit a positive correlation with yield. The item with the second largest influence on yield, like size of borrower, is a measure with direct bearing on the risk of the loan: times interest earned. This variable is not highly correlated with any other variable showing importance as a yield determinant, and hence the influence indicated above does not reflect the force of other variables among the eighteen examined. Finally, the two last variables both measure duration of loan. As would be expected, they are highly correlated with one another, as are the variables reflecting size of firm. Both are inversely correlated with yields.

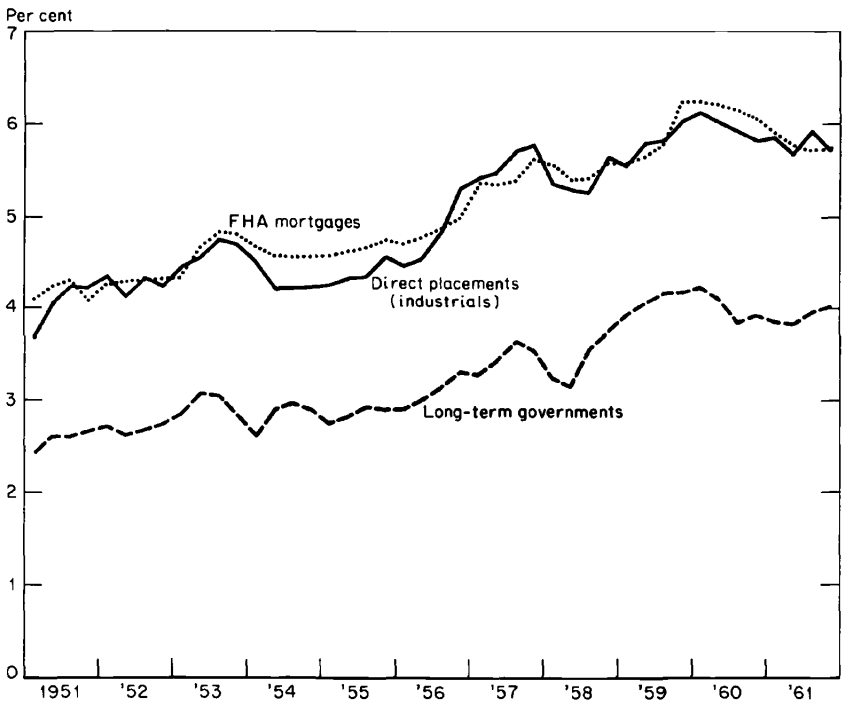
Anyone familiar with post-1930 yield curves on outstanding publicly offered bonds might expect yield to rise with length of term. In fact, the opposite effect is shown by our statistics on direct placements. Here the yield curve appears to be negatively sloped. This result was, indeed, expected by a number of experts in this market, and is not hard to rationalize. Life insurance companies more than any other lenders favor sound, long-term investments. Risk of change in capital value is unimportant to one who intends to hold to maturity anyway. These companies may be more interested in avoiding the problem of continuous reinvestment than they are in trying to outguess the market on what interest rates may be a number of years hence. It is also possible that shorter maturities are required by lenders when loans appear more risky, in which case the negatively sloped yield

curve would partly reflect the lower risk on long loans. To the extent that our analysis has been successful in holding risk constant, however, this force could not be reflected in the "yield curves" of our analysis.

It is consistent with the logic of this explanation that the coefficient of the variable representing term to maturity declined quite consistently over the period studied. This suggests that the desirability of longs increased as rates rose to higher levels. These considerations suggest at least that lenders' attitudes may help explain the difference in term structure between publicly offered bonds and direct placements, but a complete analysis would require study of the attitudes of borrowers as well as of lenders.

#### CHART 4

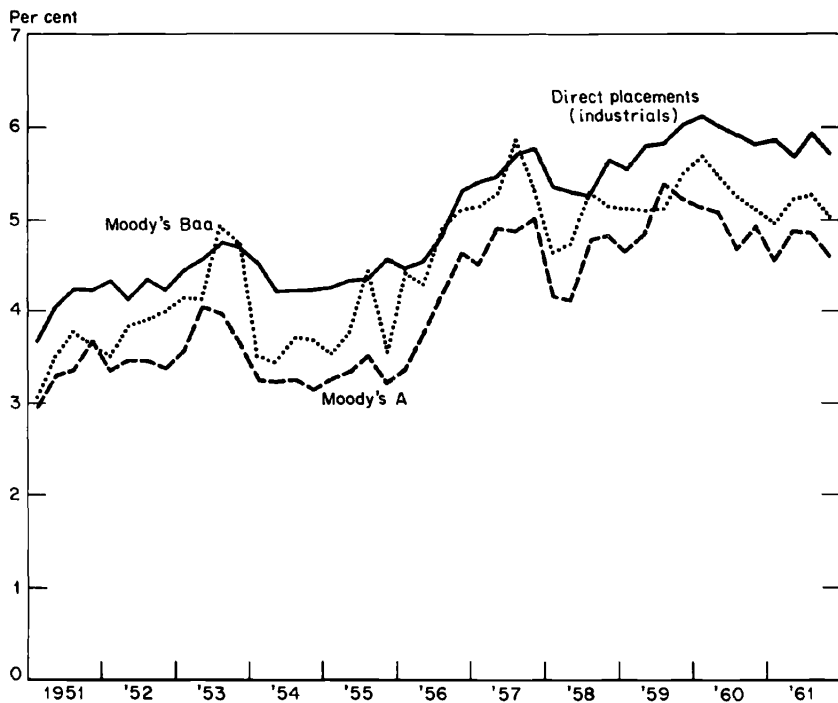
*Yields on Direct Placements (Industrials),<sup>a</sup> on FHA Mortgages, and on Long-Term Governments, Quarterly, 1951-61*



<sup>a</sup> Based on cross classification of original data (preliminary).

## CHART 5

*Yields on Industrials: Direct Placements<sup>a</sup> and New Public Offerings (Moody's A and Baa), Quarterly, 1951-61*



<sup>a</sup> Based on cross classification of original data (preliminary).

The importance of industrial classification has not yet been measured, since the regressions were prepared separately for each major group and the analysis of data for some groups is just being completed. Summarizing the cross-section findings for industrials, the most important yield-determining variables appear to be size of enterprise, earnings in relation to interest charges, and term to maturity. The regressions on public utility issues suggest conclusions similar to those for industrials. Analysis of finance company issues is in process.

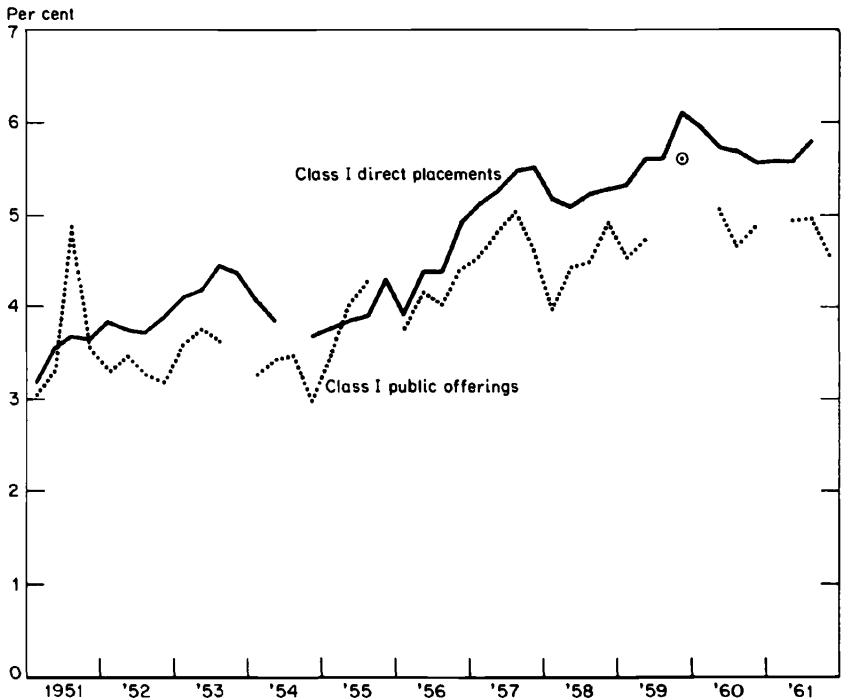
Some of the variables examined but not found to be important except as they may correlate with those considered above are variability and trend of times interest earned, five-year average of earnings before interest and taxes, level and trend in ratio of earnings before

interest and taxes to sales, and ratio of long-term debt to total capital.

Four quarterly time series have been constructed on yields of industrial direct placements—one for each of three quality classes and one composite series representing the combined movement of yields on all three classes. The movement of the composite series can be compared with the movement of yields on long-term governments, on FHA mortgages (Chart 4) and on new publicly issued industrials (Moody's Baa and A, Chart 5). The composite series on yields of direct placements moves, from quarter to quarter, in much the same way as yields on long-term governments and yields on FHA mortgages, though more flexibly than the latter. The two Moody series are noticeably more erratic than our composite series or than the individ-

CHART 6

*Yields on Class I Direct Placements<sup>a</sup> and on Class I Public Offerings, Industrials, Quarterly, 1951-61*



<sup>a</sup> Based on cross classification of original data (preliminary).

ual components thereof. Chart 6 compares yields on direct placements and yields on roughly comparable public offerings.<sup>1</sup> Cohan's forthcoming report subjects these time series comparisons to intensive analysis.

<sup>1</sup> Classification of both public and private offerings was based on what Cohan found to be the two most important yield-determining variables: times-interest-earned and total capitalization.