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II

DIRECT PLACEMENTS VERSUS PUBLIC OFFERINGS

Because of the greatly increased importance of direct placements now as compared with the Hickman era, the task of analyzing the quality of these issues is crucial to the entire study. This chapter explains those characteristics of directly placed issues that are important to quality, and the prewar history of these bonds; it then examines what evidence is available on their postwar quality.

Volume and Characteristics

As was indicated earlier, the most profound change in the corporate bond market in the postwar period has been the coming of age of direct placements as distinguished from underwritten issues offered to the public at large.¹ Direct placements have considerable advantages to the borrower and even more to the lender. The borrower, in effect, trades a slightly higher rate of interest for flexibility and assured financing.² The lender receives possibly a higher rate of interest in return for relinquishing some degree of marketability.

The result of these advantages has been a great increase in the proportion of bond issues classified as direct placements. From 1900 to 1943, the period covered by Hickman's study, direct placements of cash offerings constituted only 7.2 per cent of the total amount reaching the market.³ From 1948-65 the corresponding proportion was 46.0 per cent (see Table 2).

The development of direct placements has important implications for a study of corporate bond quality. It is really not the degree of "publicness" of a bond that has much to do with ultimate quality but

¹ The National Bureau of Economic Research now uses the term "direct placement" to indicate bonds not marketed to the general public. The Hickman study defined private placements as those with less than twenty-five investors participating. Neither term is strictly correct, since bonds not offered generally to the market are not necessarily private nor directly made.

² See George T. Conklin, Jr., "Direct Placements," *Journal of Finance*, June 1951, pp. 85-118.

³ Hickman, *Volume of Corporate Bond Financing*, p. 94, Table 8.

rather other attributes that tend to be associated with the method of marketing the obligation. Since nearly all direct placements are taken by large institutions fully able to judge bond quality, publicity that might otherwise be a safeguard presumably is not missed. Furthermore, many institutions purchasing direct placements can forgo the added liquidity of public issues because of the forecastable nature of their cash needs. Indeed, insurance companies are by far the largest purchasers of direct placements. The development of direct placements, however, has led to a large informational gap. In the first place, some direct placements fail to receive any public notice, and those that are announced may have undisclosed terms. Second, only a small percentage of corporate direct placements receive ratings from the recognized agencies, although those sold to insurance companies do receive presumably comparable ratings. Third, market rating measures may not reflect the collective judgment of the market place about the proper yield of the security, but instead may be a matter of negotiation heavily influenced by bargaining position and ability. Finally, because of the ease in changing contracts, what otherwise might be a default may in a direct placement simply become an unpublicized contract modification. Therefore, it should be understood that measurement of quality for direct placements is considerably more difficult than for public offerings.

The Prewar Experience

The quality of direct placements in the 1920's and 1930's is encouraging. Table 6 shows that, on the average, 0.15 per cent of the

TABLE 6

Direct Placements and All Corporate Bonds, Percentage of Outstandings Defaulting, 1920-39
(average annual rates)

Period of Default	Direct Placements	All Bonds
1920-29	0.15	0.95
1930-39	1.22	3.20

Source: Hickman, *Volume of Corporate Bond Financing*, Table 22, p. 208, and data compiled by Corporate Bond Research Project, on file at NBER.

outstanding private placements defaulted each year during the 1920's and 1.22 per cent each year during the 1930's, substantially below the comparable figures for all corporate bonds.

As might be expected, there are some distortions in the above comparisons, not the least of which was that because of the small volume of private placements defaulting, only three years during the 1920's (1923, 1924, and 1929) witnessed any private placement defaults, and in these particular three years the proportion of outstandings defaulting was close to 1 per cent. In the 1930's defaults as a percentage of outstandings were much higher. Defaults approached 4 per cent of outstandings for direct placements in 1935, even though the average for the decade was only slightly over 1 per cent.

Similar deceptive default rates occur when the comparison is on direct placements defaulting by year of offering. In individual years of the 1920's these were quite high (actually 100 per cent in 1929) simply because of the paucity of direct placement offerings in any one year. There were, however, only three years of the 1920's containing direct placement offerings that defaulted. With only a trickle of directly placed offerings in the 1920's, some 28.9 per cent of the offerings volume went to default. The reconciliation of low default rates calculated on outstandings and high default rates calculated on offerings for direct placements in the 1920's can be made when it is realized that offerings of direct placements were in much heavier volume in the period prior to the 1920's than in the 1920's themselves (see Hickman, *Volume of Corporate Bond Financing*, Table A-10, pp. 284-285).

TABLE 7

Percentage of Corporate Bond Offerings Bearing Agency Ratings of I-IV, Direct Placements and All Bonds, 1910-39

Period of Offerings	Direct Placements	All Bonds
1910-19	85.8	80.5
1920-29	97.9	80.7
1930-39	84.0	80.2

Source: Computed from Hickman, *Corporate Bond Quality*, Table 34, p. 179, and data compiled by Corporate Bond Research Project on file at NBER.

TABLE 8

Default Rates on Offerings of Direct Placements and All Bonds, by Agency Rating Grades, 1910-39
(percentage of par amount going to default)

Period of Offerings	Grades I-IV		Grades V-IX	
	Direct Placements	All Bonds	Direct Placements	All Bonds
1910-19	25.4	25.8	98.2	46.0
1920-29	28.8	15.2	0 ^a	44.6
1930-39	1.0	7.0	56.0	37.1

Source: Computed from Hickman, *Corporate Bond Quality*, Table 34, p. 179, and data compiled by Corporate Bond Research Project on file at NBER.

^aBased on only three issues.

Direct placements in the prewar period commanded a slightly higher agency rating than all corporate bonds, as may be seen from Table 7. The period of greatest difference in quality was obviously that of 1920-29, when nearly all direct placements were rated as investment grade in comparison with about four-fifths of all corporate bonds.

The agencies apparently have had a fair record in determining the quality of direct placement bonds, as may be seen by the much higher default rates for low-rated bonds than for bonds bearing a high agency rating (Table 8). On the other hand, it is curious that in the 1920-29 period highly rated direct placements had worse default rates than all corporate bonds. Undoubtedly of greatest relevance to postwar experience is the showing of the 1930-39 period, when direct placements receiving investment quality ratings in grades I-IV showed substantially lower losses than did all bonds offered in the period.⁴

During the first two decades of the century, direct placements tended to be loans to firms with slightly lower earnings coverage than those whose bonds were publicly offered, but this was not the case for the period 1920-39. It is clear from Table 9 that by the decade of the

⁴ In 1930-36 direct placements comprised less than 10 per cent of the total volume of offerings, but by 1939 they approached 30 per cent of total offerings (see Hickman, *Volume of Corporate Bond Financing*, Table A-10).

TABLE 9

Average Times-Charges-Earned Coverage of Direct Placements and Public Offerings, 1900-39

Period of Offerings	Direct Placements	Public Offerings
1900-09	1.31	1.55
1910-19	1.75	1.93
1920-29	2.34	2.01
1930-39	4.05	2.55

Source: Data compiled by Corporate Bond Research Project, on file at NBER.

1930's the direct placement earnings coverage was considerably better than that for public offerings.

Direct placements of given quality, it has been noted, are likely to bear higher yields than public offerings simply because lack of marketability, lower issuing costs, and reduction of marketing uncertainty warrant such treatment. This tendency inevitably should affect the tabulations of direct placements according to market rating. Actually, a greater proportion of direct placements than public offerings bore yields at offering within one percentage point (100 basis points) of the basic corporate bond yield in the last three decades of the prewar era, suggesting that most direct placements were of relatively high quality (see Table 10).

TABLE 10

Percentage of Direct Placements and Public Offerings with High Grade Market Ratings, 1900-39

Period of Offerings	Direct Placements	Public Offerings
1900-09	24.77	43.40
1910-19	50.42	34.61
1920-29	81.80	35.99
1930-39	74.04	60.94

Source: Same as Table 9.

Except for the decade of the 1920's, direct placements have relied less upon specific security than have publicly offered obligations (Table 11). It is one advantage of the direct placement method that, with perhaps more access to information about the company, the investor may require less of the conventional assurances of repayment such as specific security. Moreover, direct placements may add negative pledges, working capital covenants, and other detailed provisions not present in public issues.

TABLE 11

Proportion Secured Bonds Are of All Direct Placements and Public Offerings, 1900-39

Period of Offerings	Per Cent Secured	
	Direct Placements	Public Offerings
1900-09	51.69	87.39
1910-19	69.67	80.67
1920-29	72.06	68.32
1930-39	66.14	68.40

Source: Same as Table 9.

As a group, direct placements achieved a favorable default record as compared with the universe of all bonds, and almost all ex ante measures of quality favored them. This is not to say, however, that direct placements are not vulnerable to economic adversity, as they indeed showed in the middle 1930's.

Direct Placements in the Postwar Period

Direct placements came into their own in the postwar period. They increased in importance during the 1930's principally because corporations, fearing failure of their bond offerings in the uncertain markets of those years, turned to direct negotiations with one or a small group of purchasers. In the postwar period, however, the direct placement route became a growing means of financing not dictated from necessity. Table 2 shows that from 1948 to 1965 direct placements were 46.0 per cent of all offerings in comparison with only about 7 per cent in the

years from 1900 to 1943. According to the data compiled by the Securities and Exchange Commission (and shown in Table A-1 of this study), these nonmarketed issues accounted for over half of the total non-financial corporate bond and note issues in five of the eighteen years ended in 1965.

A definitional problem inhibits precise comparability of the postwar data with prewar data on direct placement quality. Hickman's study of bond quality was largely confined to so-called straight bonds, i.e., issues with the interest payment not contingent upon income and, most important, containing a single maturity date. The exclusion of serial bonds from Hickman's study was necessary in order to allow calculation of yields which otherwise became vastly complex for any substantial number of bonds where most of the information on payment schedules was difficult to obtain. Exclusion of serial bonds had little meaning, however, in the 1900-43 period because of their small volume. In 1925, when serial bond offerings reached their peak in dollar volume for the decade, they accounted for only about 11 per cent of all bond offerings.⁵ Not until 1940 was the 1925 volume of serial bonds exceeded, but in that year serials were still only 11 per cent of total bond volume.

The problem begins in the postwar period, when direct placements expanded greatly in volume. Since direct placement is ideally suited to serial payments, or even to payment on an amortized basis, it was no wonder that bonds with multiple dates of principal payments became a sizable proportion of total direct placements. Because serial bonds in the private placement sector have become so important a part of the corporate bond universe, it seems inappropriate to continue to maintain the definitional limitations of "straight" bonds only in analyzing characteristics of quality. In addition, of course, some repayment feature, either sinking fund or serial payment, is a characteristic of direct placements.

Direct Evidence on Postwar Quality

The evidence of quality of direct placements leaves something to be desired. Essentially the reader must decide between series admittedly covering too short a span and those in which the evaluation limit may be an extreme one. In essence, however, the findings of both coincide on the recent direction of quality changes.

⁵ *Ibid.*, Tables A-4 and A-1.

The Cohan Data

Avery B. Cohan of the University of North Carolina, who is participating in the National Bureau's study of interest rates, drew a sample of direct placements made by twenty-three life insurance companies and one pension fund during the period 1951-61.⁶ The total assets of these companies as of the end of 1959 were 73 per cent of those of the industry, and the companies themselves included most of those active in direct placement lending. Cohan estimates that his sample covered 44 per cent by volume of all direct placements negotiated during the period. He recorded some eighteen characteristics of direct placement offerings, including, of course, amount, maturity, security, industry, size of capitalization, debt ratio, and call protection. One important characteristic was the number of times the fixed charges (including the interest cost on the new debt) are covered by earnings before interest and taxes.

The Cohan sample did not include bonds with warrants or conversion features, but it is representative of ordinary direct placements.

Cohan found two variables of notable significance in accounting for yield differences between direct placement issues, earnings coverage, and size of company, and he has classified his offerings by a combination of these two characteristics to obtain quality classes.⁷ Thus, his Class 1, or best quality, consisted of issues of firms with capitalization of over \$135 million and earnings coverage of over fifteen times for industrials and six times and over for utilities. His second class included issues of firms having either (1) capitalization of over \$135 million and coverage for industrials of 5.1-15.0 times earnings and for utilities of 4.0-5.9 or (2) capitalization of \$45.1-\$135.0 million and coverage of over fifteen for industrials and of six and over for utilities. Similar criteria representing combinations of size and earnings coverage were established for five other industrial classes and six other utility classes. This classification system was valid since some correspondence in the behavior of yield existed between Cohan's classes and several of Moody's classes by rating grades. Furthermore, Cohan tested his quality ratings by distributing a sample of 198 agency-rated industrials and

⁶ I am indebted to Cohan for access to his preliminary tabulations and analyses.

⁷ It is by no means clear that the lower yield associated with direct placements to larger firms is a reflection of quality rather than of market power on the part of the borrower. Some, of course, would hold that market power itself and/or the diversity that goes with size are in themselves reflections of quality.

TABLE 12

*Distribution of Number of Public Offerings, by Agency Rating,
Cohan Quality Class, and Industrial Group, 1951-61
(percentage of each quality class)*

Agency Rating	Quality Class					
	1	2	3	4	5 ^a	6-8
Aaa						
Industrials	21.2					
Utilities	44.6	3.2				
Aa						
Industrials	56.1	7.9	1.7			
Utilities	45.8	47.6	17.4	16.7	16.7	
A						
Industrials	19.7	78.9	41.4	19.2	—	
Utilities	9.6	47.6	71.7	66.7	50.0	33.3
Baa						
Industrials	3.0	13.2	53.4	61.5	30.0	
Utilities	—	1.6	10.8	16.7	33.3	—
Ba						
Industrials			3.4	19.2	70.0	
Utilities						66.7
Total						
Industrials	100.0	100.0	99.9	99.9	100.0	—
Utilities	100.0	100.0	99.9	100.1	100.0	100.0

Source: Avery B. Cohan, "Yields on Direct Placements, 1951-61," National Bureau of Economic Research, in preparation.

^a5-7 for industrials.

219 utility offerings made publicly in the 1951-61 period. The result, shown in Table 12, indicates the degree of correspondence between agency ratings and Cohan's own quality classifications. The distribution is by number of issues.

Table 13 shows the dollar-value distribution of Cohan's direct placement sample by major grouping of quality grade for 1951-61. There is an irregular swing from the prime grades to the lower grades over the course of the period, but this is in part deceptive because of changes in the middle group as well. A more precise measure of the quality shifts (assuming equal value quality grades) is indicated by Chart 3, which shows the average quality grade for all direct placements in Cohan's sample. Here the quality deterioration is not so pronounced. Indeed, apart from the fact that the two beginning years were relatively high in quality and the last two were years of low quality, it could be said that there was no change in quality based on this measure.

Over the period covered by the data, Cohan's two quality criteria were moving in opposite directions; capitalization was increasing and

TABLE 13

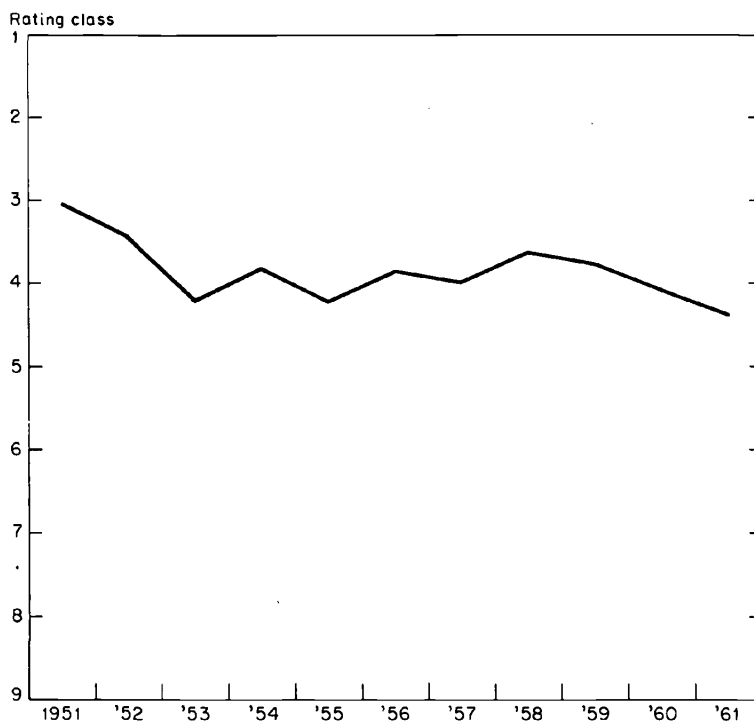
*Percentage Distribution of Dollar Value of Direct Placements
by Quality Classes, Defined in Terms of Capitalization of
Borrowing Firms and Earnings Coverage, 1951-61
(per cent and dollar total)*

Year	Quality Classes				Total	Dollar Volume (millions)
	1-3	4-5	6-9			
1951	64.8	29.6	5.6	100.0	2,803	
1952	53.4	37.8	8.8	100.0	1,185	
1953	29.5	54.9	15.6	100.0	906	
1954	44.4	41.3	14.4	100.1	1,417	
1955	24.5	63.9	11.5	99.9	1,471	
1956	37.5	52.1	10.4	100.0	1,731	
1957	31.4	59.1	9.5	100.0	1,187	
1958	52.5	32.1	15.5	100.1	1,171	
1959	51.7	29.2	19.2	100.1	851	
1960	38.4	42.8	18.8	100.0	1,119	
1961	25.8	56.3	18.0	100.1	1,097	

Source: Cohan, "Yields on Direct Placements."

CHART 3

Average Rating Class for Cohan Sample of Direct Placements, 1951-61



Source: Computed from Cohan, "Yields on Direct Placements."

Note: Rating class is defined by amount of *pro forma* capitalization and *pro forma* interest.

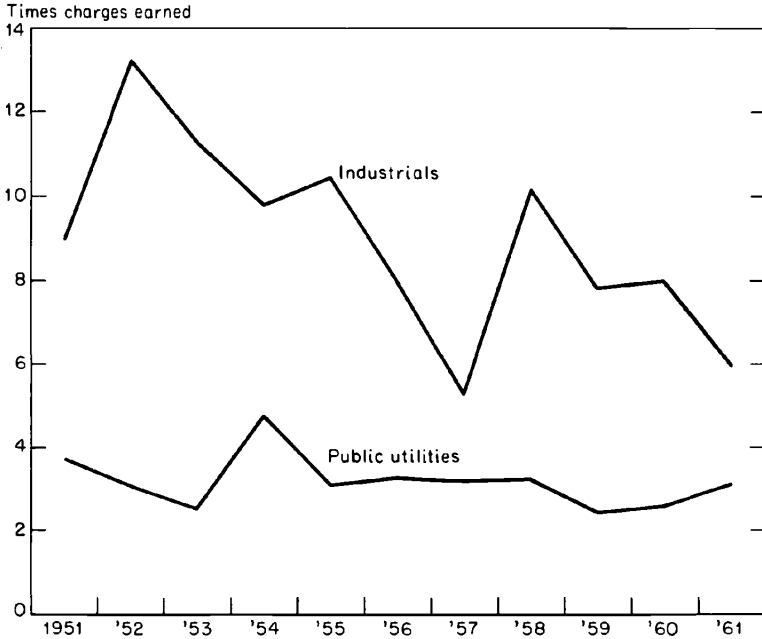
earnings coverage decreasing. The geometric means for the periods 1951-55 and 1956-61 were as follows: ⁸

	1951-55	1956-61
Total <i>pro forma</i> capitalization (millions of dollars)		
Industrials	12.8	24.9
Public utilities	11.4	16.1
Times charges earned		
Industrials	11.8	8.3
Public utilities	3.1	2.9

Thus, one might expect Cohan's combination quality measure to be somewhat sluggish in indicating long-run trends.

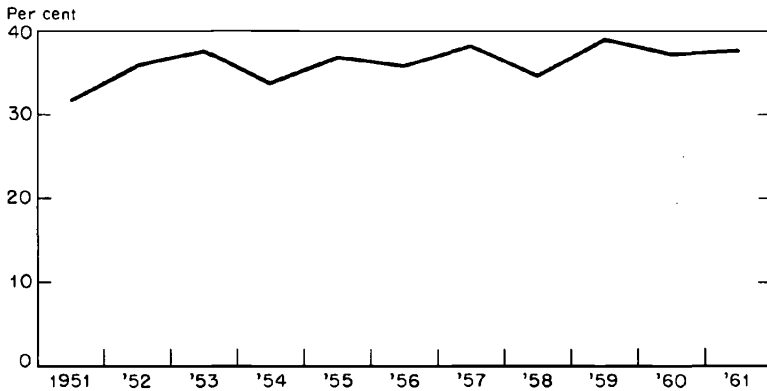
⁸ From Cohan, "Yields on Direct Placements, 1951-61."

CHART 4
*Earnings Coverage of Direct Offerings Before Taxes,
 by Industrial Group, 1951-61*



Source: Medians computed from unpublished data of Avery Cohan.

CHART 5
*Ratio of Pro Forma Long-Term Debt to Pro Forma Capitalization
 for Direct Placements, 1951-61*



Source: Computed from Cohan, "Yields on Direct Placements."
 Note: Average of quarterly means is weighted by dollar volume.

If the quality measure combining size of capitalization and earnings coverage moves in a sluggish manner because of the opposite movements of the characteristics used for classification, what about earnings coverage alone, a more conventional measure than the combination favored by Cohan? Chart 4 indicates his findings for the period and sample he surveyed. The data plotted are medians of annual earnings coverage for direct offerings and are shown separately for industrials and public utilities. While there is some variation in the ratios, in general the chart gives a moderately consistent picture of gradual decline in earnings coverage from 1951 to 1961 for both industry groups. The industrial median in 1951 was about nine times coverage in comparison with about six times coverage in 1961; comparable public utility medians were four times and three times, respectively. The ratios are compared with those for public offerings in Chart 10.

One finding of Cohan's has a direct implication for quality: long-term debt as a proportion of *pro forma* capital showed very little trend. Chart 5 shows the yearly average of the ratio of long-term debt to *pro forma* capitalization. Thus, at least as far as this measure is concerned, there is no real tendency of a change in credit quality.

One more piece of evidence on the quality problem is provided by Cohan. Table 14 compares public offerings and direct placements by

TABLE 14

*Comparison of Public Offerings and Direct Placements
by Cohan Quality Classes, 1951-61
(percentage distribution by number of offerings)*

	Quality Classes						Total
	1	2	3	4	5 ^a	6-8	
Industrials							
Public offerings	33.3	19.2	29.3	13.1	5.1	—	100.0
Direct placements	4.3	7.6	16.1	21.5	22.8	27.7	100.0
Public utilities							
Public offerings	37.9	28.8	21.0	8.2	2.7	1.4	100.0
Direct placements	0.8	3.0	8.5	18.7	22.2	46.8	100.0

Source: Cohan, "Yields on Direct Placements."

^a5-7 for industrials, public offerings.

his quality classes. Obviously, by this distribution, public offerings appear to be of much higher quality than direct placements. But since size was one criterion of Cohan's quality classification, it is possible that the direct placements, which were of smaller size, may have been rated down when in other quality criteria such as coverage they were just as good.

Data of the National Association of Insurance Commissioners

Evidence on the proportion of direct placements that have been considered "investment grade," covering a considerable span of time, is provided by the Committee on Valuation of the National Association of Insurance Commissioners (N.A.I.C.).⁹

In 1910 the National Convention of Insurance Commissioners (predecessor of the N.A.I.C.), through its Committee on Valuation of Securities, began publication of uniform price lists for the purpose of valuing securities in insurance company portfolios. The basis for evaluation at the time was the market price. At roughly the same time, the insurance industry, led by New York companies, was evolving a doctrine that fixed-term, "amply secured" bonds not in default would be valued at cost modified by accrued amortization of discount or premiums. In the 1920's such a method of valuation of fixed-income securities had been adopted by nearly all states.

Because the privilege of adopting a cost basis for valuation (amortized for premium or discount) was only open for "amply secured" bonds in good standing, use of a market-price concept for "nonamortizable" securities caused recurrent valuation problems in each crisis period—1907, 1914, and 1931. With the onset of the Great Depression, the New York State Insurance Department decided that more attention should be paid to the quality of bonds and in 1932 notified companies doing business in that state that only bonds rated in the first five rating grades by one of the rating agencies would be considered eligible for amortization on a cost basis. This measure was not fully satisfactory; during the 1930's the insurance industry was criticized for giving some bonds amortized valuation even though they sold at quite low market prices. In 1940 the N.A.I.C. adopted the following criteria for eligi-

⁹ This account is taken from Harold G. Fraine, *Valuation of Securities Holdings of Life Insurance Companies*, Homewood, Ill., 1962, pp. 1-16. Only that part of the valuation process directly applying to quality is here described.

bility: (1) bonds rated in the first four grades by two agencies, (2) bonds rated in the first five grades by three agencies, (3) bonds rated in the first five grades by two agencies and priced at 55 or better in September, October, and November. The last test, that of price, was later changed to a yield spread over U.S. government bonds of 3.9 per cent. Later this was reduced to 1.5 per cent.

In 1948, an industry committee initiated an inquiry into the performance of bond investments as revealed by the National Bureau's Corporate Bond Project, the culminating reports on which were the Hickman study. Evolving out of this study was a two-class reserve scheme for bonds in good standing to cushion differences between cost and market price. Falling in the first class, subject to annual reserve accruals of 0.05 per cent, were corporate bonds in the first four rating grades or equivalent, while all other good bonds were in the second class subject to a 1 per cent accumulation rate. In 1953, the N.A.I.C. specified two tests of eligibility for each class of corporate bonds, as follows:

Test 1: all bonds in the first four rating grades of one of the accredited agencies, or debt ratio of 50 to 75 per cent of total capitalization depending on industry, plus average earnings coverage of 1.5 times before taxes over preceding five years and actual coverage of 1.5 times in either of the last two years.

Test 2: earnings requirements of one times average fixed charges for the last five years and on an actual basis for one of the last two years, and, for railroad bonds, current assets equal to 125 per cent of current liabilities.

Public utility and industrial bonds were to have adjusted earnings equal to mandatory principal payments and sinking-fund requirements (excluding final maturities) in each year, or working capital equal to 100 per cent of long-term debt. Appropriate modifications in each test have been made for new enterprises and for special obligations and guaranteed and contractually supported obligations.¹⁰

Bonds are currently divided by these ratings into two classes. The first is defined as those bearing either agency ratings in the first four grades, or earnings coverage of 1.5 times five-year average fixed charges

¹⁰ See precise statement of tests in Committee on Valuation of Securities, *Valuation Manual*, New York, 1959. Further slight modifications have been made from time to time which, however, have not altered the basic over-all quality standards demanded of the tests.

plus certain balance sheet conditions dependent in part upon the industry. In the early postwar period, standards for the top class had been defined as those falling in the first four rating grades by two agencies, in the first five by three agencies, or in the first four by two agencies plus a yield spread varying from less than 3.9 per cent over the yield of long-term Treasury bonds, as of the last war years, down to a 1.5 per cent spread in 1950. In 1953, the present standards were adopted. Since only a few of the postwar years were subject to this different standard, our remarks will be confined to the definition of bonds currently passing the first test.

Interviews with bond analysts suggest that few, if any, bonds with five-year earnings coverage of only 1.5 times would, if rated currently, bear agency ratings in the first four grades. While proof is lacking, the impression is received that 1.5 times earnings coverage might be the lower limit of class IV, or Baa, since bonds having other features of strength might conceivably fall into this class. Interviews with the N.A.I.C. staff indicate that the troublesome cases—those bonds clearly deserving Test 1 classification for their equivalence to bonds rated in the first four agency rating grades, but which are unable to show adequate earnings coverage—include many obligations of airline and finance companies. Significantly, both of these industries, because of vigorous growth patterns, have been increasingly heavy borrowers in the late postwar period. N.A.I.C. found a number of bonds, which barely passed the earnings test for Test 1, failed on other grounds—most importantly, the balance sheet conditions.

These ratings provide an objective measure of quality for bonds considered as "investment grade," even though the standards as formally defined do not match those normally used to determine the first four agency ratings. The N.A.I.C. occupies a respected position as an arm of the state supervisory agencies of major financial institutions and as a body of independent analysts taking an objective view of bond quality. The long-term record of bonds rated in its preferred class is a useful time series for analysis of changes in bond quality. Thus, the analysis of the proportion of bonds rated as acceptable for amortization on a cost basis is a useful measure of changes in bond quality over time.

Determining the N.A.I.C. ratings for direct placement corporate debt obligations was involved and subject to several types of error. Each direct placement issue recorded in the semiannual and annual lists

compiled by the *Investment Dealers' Digest* was looked for in the annual handbook compiled by N.A.I.C. If it was found there, it was given the rating indicated ("yes" if it passed Test 1 and was therefore judged to be investment grade and "no" if below investment grade).¹¹ Direct placements failed to be listed or were in error if (1) no announcement was made of the offering in the *Investment Dealers' Digest*, (2) the announcement or listing was wrong or misleading, or (3) none of the placements went to an insurance company and therefore they were not graded by N.A.I.C. An idea of the total error involved in these three types of problems may be obtained by comparing columns 7 and 8 of Table A-1, which shows how this study's total of direct placements compares with those of the SEC. In some years, the total used in this study was two-thirds or less of the SEC total, probably because some of the direct placements were not officially announced. The least error probably comes from direct placements being made outside the life insurance field, although the possibility of different quality standards for direct placements taken by pension funds, investment trusts, or other institutions not subject to rigid investment supervision should not be overlooked.

Table 15 shows that direct placements rated "no" by N.A.I.C., and thus equivalent to subinvestment-grade obligations marketed to the general public, amounted to a maximum of 4.1 per cent in one year and were usually closer to 1 per cent. This is a better showing than that made by public offerings, in which the high point was 21 per cent and 4 per cent was common. This finding of the superior quality, as shown by agency ratings, of direct placements versus public offerings is not surprising, particularly when the data are confined to obligations purchased by life insurance companies, subject to rigid supervision.

The conclusions from the N.A.I.C. data depend in part on the interpretation of the standards and changes in standards used by that organization until 1953, when the present tests were adopted. Moreover, in the period after 1953 there is the real question of whether a 1.5 times earnings coverage can be considered as including bonds of quality within the first four rating grades. Finally, from 1940 through

¹¹ The designation of "yes" indicates the particular security is eligible under the rules of N.A.I.C. for valuation at cost adjusted by amortization of premium or discount at a rate sufficient to establish a 1 per cent security valuation reserve. Those designated "no" must be amortized on a 20 per cent basis and, in addition, are usually valued at a figure specified by the N.A.I.C.

Trends in Corporate Bond Quality

TABLE 15

*Bonds Rated as Subinvestment Grade by Rating Agencies,
Public Versus Direct Offerings, 1944-65*

Year or Period of Offerings	Public Offerings (per cent rated Baa or below by Moody's)	Direct Offerings (per cent rated "no" by NAIC)
1944	2.6	.0
1945	4.4	.0
1946	3.6	.7
1947	.7	a
1948	1.0	.1
1949	2.3	1.8
1950	2.9	.5
1951	2.3	.4
1952	1.3	2.9
1953	1.1	.5
1954	4.1	.6
1955	7.7	2.1
1956	10.7	.3
1957	7.6	.3
1958	4.1	.8
1959	14.6	1.0
1960	7.9	1.0
1961	5.6	2.4
1962	3.0	2.7
1963	8.2	4.1
1964	16.6	2.1
1965	21.0	3.4
<i>Four-year averages</i>		
1944-47	2.8	.2
1948-51	2.1	.7
1952-55	3.5	1.5
1956-59	9.2	.6
1960-63	6.1	2.8
1964-65 (2 years only)	19.3	2.8

Source: Based on Tables B-1, B-2, and B-3. Percentages based on rated bonds only.

^aLess than .05.

1952, bonds of the fifth rating grade could have been included if they had passed yield-spread tests. This is contrary to the practice of banking supervisors, who generally regard investment-quality bonds to be those ranked in the first four rating grades.¹² To identify amortizability standards in direct offerings with agency ratings of the first four grades in public offerings is, therefore, incorrect, but the two standards do equate if they are regarded as receiving an approved investment status by supervisory agencies.

Other Evidence

Other data on the quality of direct placements offer corroborative evidence, though they cannot be directly reconciled with the previously cited material. Two surveys of life insurance company direct placements, although limited in nature, indicate the extent of quality problems.

The first survey is of a study of direct placements made to intermediate-sized industrial companies by thirteen major life insurance companies.¹³ The period covered is from 1946 to 1953, when these companies accounted for over 90 per cent of the direct placements in the life insurance industry. The loans examined were those from \$100,000 to \$1 million to companies with funded debt not significantly above \$1 million and with assets of \$10 million or below. Only loans classified in the industrial and miscellaneous group were included; loans to finance companies, loans to nonprofit institutions, oil payment loans, and very short-term loans were excluded.

Toren states that of 480 loans examined, only two, in the amount of \$1,125,000 (original principal), which were made to the same borrower, had resulted in loss (\$405,000). This compares with gross lending of \$340 million for a loss rate of 0.12 per cent.

As of December 31, 1953, there were 363 loans in the sample, of which 351 were in good standing and fully amortizable. Twelve loans for a face amount of \$3,861,850 were not amortizable, or 2.3 per cent of the \$169,201,000 balance outstanding on that date. Of the non-

¹² See Benjamin Graham, David L. Dodd, and Sidney Cottle, *Security Analysis* (4th ed.), New York, 1962.

¹³ James W. Toren, "Direct Placement Loans of Thirteen Largest Life Insurance Companies as a Postwar Solution to the Problem of Long-Term Debt-Type Financing for Intermediate Size Industrial Corporations," unpublished Ph.D. dissertation, Graduate School of Business, New York University, 1956.

amortizable loans, only three were valued at less than the face amount of the bond.¹⁴ Toren's data show that for a distinctive group of direct placement loans of intermediate-sized business firms—firms which might be expected to be susceptible to quality problems—loss and nonamortizability conditions were relatively slight.

The second survey does not directly reveal default or loss ratios, but it does cast light on the mysterious process of contract modifications in direct placements. Earlier discussion of quality among direct placements, it will be recalled, indicated that ease of contract modification might be responsible for a deceptively low volume of defaults in this category of bonds. A survey of the modification process in direct placements by Harold K. Herzog demonstrates the typical practice in one major lending institution.¹⁵ Herzog examined the records of a major life insurance company from 1952 through 1957. This company held 6 per cent of all life insurance company holdings of public utility and industrial bonds at the end of 1957 and directly placed issues to 208 firms during the 1952–57 period.

Herzog found that 105 of the 208 companies from 1952 to 1957 were granted 310 modifications of covenants. The covenants were of four broad categories, which included (1) terms, maturity, etc.; (2) affirmative covenants in which the borrower agreed to maintain property, books, etc.; (3) negative covenants, such as restricting debt, dividends, salaries, required working capital; and (4) legal specifications of default, modifications, indenture, trustees, and so forth. He indicated that direct placements contained many of the same covenants as public offerings, but differed from the latter primarily in the greater degree of specification and greater application of the affirmative and negative covenants.¹⁶

Herzog found that contract modifications were most frequently made because the borrowing company grew more rapidly than had been expected or performed more aggressively. Such cases accounted for 40 per cent of the requests for modification. Thirty-seven per cent of requests for modification were for technicalities unrelated to the course of the business, and the remaining 23 per cent were requested as a result of company difficulties of one type or another.¹⁷

¹⁴ *Ibid.*, p. 252.

¹⁵ Harold K. Herzog, "The Modification of Indentures and Promissory Notes Used in Direct Placement Financing," unpublished M.A. thesis, Graduate School of Business, New York University, 1959.

¹⁶ *Ibid.*, p. 8.

¹⁷ *Ibid.*, pp. 15–17.

Herzog cross-tabulates modification requests by cause of request and covenant requested to be changed. He shows requirements for modification involving some debt quality problems, i.e., those due to company difficulties, industry difficulties, inherent factors, those forced by competition and default avoidance. For the most part, the requests were for modification of debt limitations or for release of property and mortgage contracts. Extensions of maturity or changes in sinking fund requirements were relatively rare, although three of the five modifications requested "to avoid default" were for changes in these provisions.

This look at contract modifications for one lender for a few years in the total postwar period suggests that the process of modifying contracts on direct placement loans is not merely due to the staving-off of formal defaults. While nearly one-third of the requests for modifications are motivated by need to relax rigid requirements, frequently on debt limitations, only a few involve a real inability to make payments as scheduled.