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FINANCIAL MARKETS

Issuers, Purchasers, and Purposes of High Yield, Non-Investment Grade Bonds



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General Government Division

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February 29, 1988

The Honorable William Proxmire
Chairman, Committee on Banking, Housing
and Urban Affairs
United States Senate

The Honorable Fernand J. St Germain
Chairman, Committee on Banking, Finance
and Urban Affairs
House of Representatives

This report provides the results of our work to date in response to the requirements of Section 1201 of the Competitive Equality Banking Act of 1987 (P.L. 100-86). This section of the act reflected congressional concerns about (1) the extent to which high yield, non-investment grade bonds, commonly called "junk bonds," may be fostering corporate takeovers and (2) the risks to federal insurance funds represented by federally insured institutions which invest in high yield bonds.

Section 1201 requires us to obtain, for a 5-year period, information on the issuers and purchasers of high yield bonds; the purposes for which the bonds are issued, including the percentage issued to finance corporate takeovers; and how investments in these bonds by federally insured institutions compare in terms of risk and profitability to other investments these institutions have made. The act also requires us to provide a summary and analysis of the adequacy of current federal and state laws regulating investment in high yield bonds and an evaluation of the impact of these bonds on corporate debt as it relates to federal monetary policy. Finally, the act specifies that we hold a public hearing as one means of obtaining information.

As agreed with the Committees, this report responds to the reporting requirement of the act. A second report will follow to incorporate information obtained during our public hearing scheduled for March 1, 1988. That report will present our conclusions and recommendations and will also address the act's requirements which are not discussed in this report--how high yield bonds compare to other investments, the adequacy of state laws, and the effects of bond debt on monetary policy.

We used several different methods and sources to obtain information for this report. Data on the issuance of high yield, non-investment grade bonds, for example, came from a data file kept by an information services company. This file of original issue securities is widely used in the financial industry. Information on bond purchasers came from investment bankers active in the high yield market, officials of thrift institutions with whom we met, and the Federal Home Loan Bank Board. Our work, which followed generally accepted government auditing standards, was done between August 1987 and February 1988. Appendix V details our scope and methodology.

The material in the following sections summarizes information included in the appendixes on the issuers and purchasers of high yield bonds (see apps. I and II), selected California thrifts with high yield bond portfolios in excess of \$100 million or 10 percent of net assets (see app. III), and the purposes for issuing bonds, including an analysis of 54 corporate takeover financings in 1985 and 1986 (see app. IV).

ISSUERS

The use of high yield, non-investment grade bonds for corporate financing purposes has grown significantly in recent years. In 1982, 57 non-investment grade corporate bond issues with a face value of \$2.8 billion were offered. By 1986, that number had grown to 233 valued at \$33.8 billion. In 1987, the number of new bond issues offered declined to 193 with a value of \$31.3 billion (see table I.1, p. 8)¹. Some investment bankers attributed this decline to investors' reaction to the stock market turmoil of October 1987. Because of the high volume of new non-investment grade bonds issued in the mid-1980s, the value of high yield bonds outstanding rose from about \$18.5 billion as of June 30, 1982, to almost \$137 billion as of June 30, 1987 (see table I.2, p. 12). Companies in a wide variety of

¹Totals shown are for non-convertible bonds only. Some convertible bonds are also issued with non-investment grade ratings; however, because convertible bonds have equity(stock)-like characteristics, most studies and data do not consider these to be "junk bonds." For purposes of comparison, we have included data on convertible non-investment grade bond issues in table I.1, but in general the data in this report pertains only to non-convertible bonds.

industries, such as manufacturing, financial services, and mining, issued high yield bonds (see table I.5, p. 19).

PURCHASERS

The largest purchasers of these bonds are mutual funds and insurance companies, each of which purchases 30 percent or more of new high yield bonds, followed by pension funds, individuals, and thrift institutions which purchase between 7 and 10 percent each (see p. 20). We obtained detailed information on thrift purchasers of high yield bonds because of the concerns that these investments could pose a risk to federal insurance funds. In the past 2 years, federally insured thrifts have increased their holdings of high yield bonds. As of June 1985, thrifts owned about \$5.7 billion in these bonds, representing about 0.6 percent of total net assets of federally insured thrifts. By September 1987, thrift holdings of high yield bonds had grown to \$11.1 billion representing about 0.9 percent of total net assets (see table II.2, p. 25). About 78 percent of this total was held by 10 thrifts, which had from about 3 to about 34 percent of their assets invested in high yield bonds. The investment policies and procedures followed by 5 of these 10 thrifts which we visited in California vary, as does the amount they establish for loss reserves (see app. III, p. 26). We plan to evaluate the reasons for these differences in our final report.

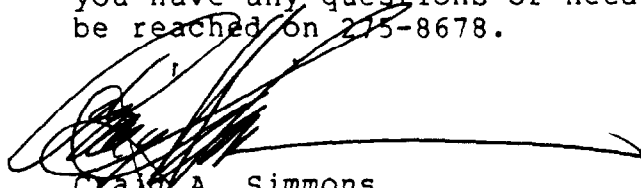
PURPOSES

The prospectuses and related data for a random sample of 124 high yield bond issues from a universe of 333 issues offered between January 1986 and June 1987 showed that bonds were used for many purposes. For 66 of the 124 issues, bonds were used for more than one purpose. The most common reasons for issuing bonds were general corporate purposes, cited on 62 percent of the prospectuses, and debt retirement which was noted on 53 percent. "Acquisitions" was a reason stated for issuing the bonds on 13 percent of the prospectuses. Other acquisition-related reasons included future acquisitions, named on 15 percent of the prospectuses, and retirement of debt of previous mergers and acquisitions, named on 23 percent (see table IV.1, p. 31, for sample error calculations).

To determine the extent to which high yield bonds were used to finance corporate takeovers, we reviewed all acquisitions of non-financial corporations in 1985 and 1986 which began with a hostile (opposed by management) tender offer, a total

of 54 acquisitions. Of these, 33 were successful hostile takeovers and 21 were takeovers by "white knights" or other companies which made an offer after the hostile tender offer and were more acceptable to the management of the company being acquired. Bank borrowing was the most common financing method for the takeovers we studied--used in 39 of the 54 cases and representing about 42 percent of the total amount financed in both years. Publicly traded high yield bonds accounted for about 12 percent of the total amount financed in the 2 years. However, some of the financing for 11 of the 54 acquisitions was later refinanced using high yield bonds (see tables IV.2, p. 32 and IV.3, p. 34). In addition, three acquisitions were originally financed with privately placed high yield bonds that later traded in the public market. When these factors are considered, the percent of publicly traded high yield bonds used to finance corporate takeovers totals about 22 percent for the 2 years.

As required by the act, we did this work in consultation with the Securities and Exchange Commission, the Federal Home Loan Bank Board, the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Savings and Loan Insurance Corporation, the Secretary of the Treasury, and the Secretary of Labor. Officials of these agencies provided technical comments on a draft of this report which we have incorporated where appropriate. Copies of the report are being provided to those agencies and are available to others on request. If you have any questions or need additional information, I can be reached on 215-8678.



Craig A. Simmons
Senior Associate Director

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ABBREVIATIONS

ERISA	Employee Retirement Income Security Act
FDIC	Federal Deposit Insurance Corporation
FHLBB	Federal Home Loan Bank Board
FRB	Federal Reserve Board
FSLIC	Federal Savings and Loan Insurance Corporation
NAIC	National Association of Insurance Commissioners
OCC	Comptroller of the Currency
SEC	Securities and Exchange Commission

ISSUERS OF HIGH YIELD BONDS

In the 6-year period between January 1, 1982, and December 31, 1987, 920 publicly traded, non-convertible, corporate high yield bond issues were offered which Moody's or Standard and Poor's rated non-investment grade or which had characteristics similar to rated non-investment grade bonds, but were not rated. The face value of these bonds was \$108.2 billion. In addition, 586 convertible high yield, non-investment grade bond issues were offered in 1982 through 1987, with a face value of \$28.1 billion. Table I.1 (pp.8 and 9) and figures I.1 (p.10) and I.2 (p. 11) summarize data on the number and amount of high yield non-investment grade bonds issued by year and show that the number of companies issuing high yield bonds and the amount issued grew each year between 1982 and 1986, but declined in 1987. Our data show that the 1987 decline was caused primarily by a decrease in new issues between October and December. According to investment bankers and an observer of the high yield bond market, this decrease reflected investors' reactions to the stock market turmoil of October 19, 1987. They told us that during these months investors flocked to higher quality securities, which lowered the demand for high yield bonds and raised the cost of high yield financing to a prohibitive level.

As the high yield bond market grew, the overall credit quality of new issues, as determined by the rating services, declined. Tables I.3 (p. 13) and I.4 (p. 16) and figures I.3 (p. 15) and I.4 (p.18) generally show an increased percentage of new issues rated in the lower rating categories between 1982 and 1987.

Table I.5 (p.19) shows the breakdown by industry classification of companies which issued high yield bonds between January 1, 1982, and December 31, 1987. The most frequent issuers were firms in the "manufacturing" (31 percent) and "finance, insurance, and real estate" (19 percent) classifications.

Table I.1:

a

New Publicly Traded Non-Investment Grade Bonds Issued Between January 1, 1982 and December 31, 1987

	1982			1983			1984		
	Non-Convertible debt	Convertible debt	Total	Non-Convertible debt	Convertible debt	Total	Non-Convertible debt	Convertible debt	Total
No. of Issuers	50	51	101	87	84	171	111	39	150
No. of Issues	57	52	109	99	85	184	139	40	179
Face Value (\$000,000)	2777.5	2043.6	4821.1	7917.8	3838.0	11755.8	15727.9	1468.4	17196.3
Average Issue Size (\$000,000)	48.7	39.3	44.2	80.0	45.2	63.9	113.2	36.7	96.1
	1985			1986			1987		
	Non-Convertible debt	Convertible debt	Total	Non-Convertible debt	Convertible debt	Total	Non-Convertible debt	Convertible debt	Total
No. of Issuers	152	97	249	189	191	380	146	119	265
No. of Issues	199	97	296	233	192	425	193	120	313
Face Value (\$000,000)	16664.6	5003.1	21667.7	33783.0	8917.3	42700.3	31333.0	6810.3	38143.3
Average Issue Size (\$000,000)	83.7	51.6	73.2	145.0	46.4	100.5	162.3	56.8	121.9

Source: IDD Information Services, Inc. (see app. V, page 35)

a

Includes non-rated bonds which have equivalent characteristics to below investment grade bonds.

Totals for Publicly Traded
Non-Investment Grade Bonds Issued
Between January 1, 1982 and December 31, 1987

	<u>Non-convertible debt</u>	<u>Convertible debt</u>	<u>Total</u>
Number of issuers	735 ^a	581	1316
Number of issues	920	586	1506
Face value (\$000,000)	\$108,203.8	\$28,080.7	\$136,284.5
Average issue size (\$000,000)	\$117.6	\$47.9	\$90.5

^a One-hundred and thirteen companies issued bonds in more than 1 year. Therefore, the actual number of different companies issuing bonds is 622.

Figure I.1: Face Value of New Issues
(High yield, non-convertible bonds)

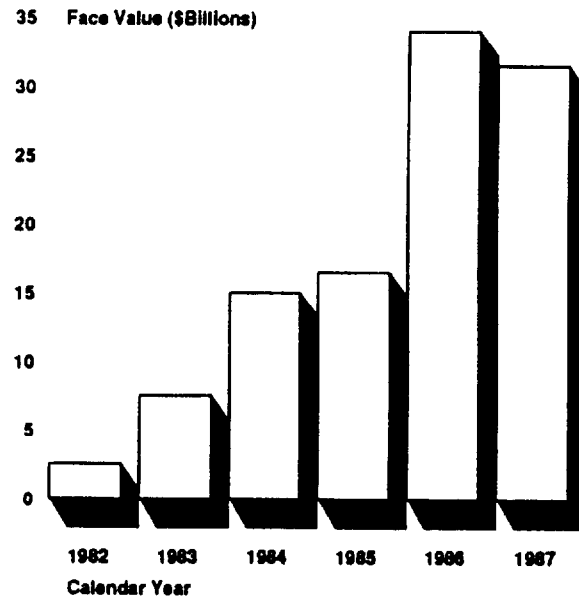


Figure 1.2: Number of Issuers
(High yield, non-convertible bonds)

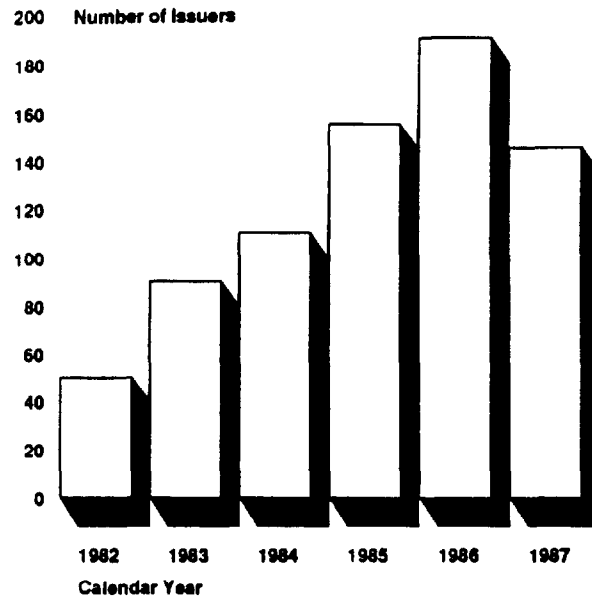


Table I.2:

Non-Convertible High Yield Bonds Outstanding

<u>Year</u> ^a	<u>Face value outstanding</u> (billions)
1987	\$136.9
1986	93.0
1985	59.1
1984	41.7
1983	28.2
1982	18.5

^a As of June 30 each year.

Source: "Measuring Corporate Bond Mortality and Performance" by Edward I. Altman

Table I.3:

New Bond Issues Rated As Non-Investment
Grade By Standard & Poor's By Rating Category

Rating Category ^a	1982		1983		1984		1985		1986		1987	
	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)
BB	14	1105	25	3031	23	3700	20	1791	28	5853	32	5078
Percent of total	40%		33%		24%		19%		17%		20%	
B	19	1095	42	3504	63	6295	70	5269	112	18016	109	19844
Percent of total	54%		56%		66%		67%		66%		68%	
CCC	2	60	8	495	10	1221	15	1852	29	3734	19	3865
Percent of total	6%		11%		10%		14%		17%		12%	
C											1	90
Percent of total											1%	
Total	35	2260	75	7030	96	11216	105	8912	169	27603	161	28877
Percentage total ^b	100%		100%		100%		100%		100%		100%	

^a Standard and Poor's definitions of each of these non-investment grade rating categories are shown on the following page.

^b Totals may not add to 100 due to rounding.

Source: IDD Information Services, Inc. (see app. V, p. 35)

Table I.3:

Standard & Poor's
Non-Investment Grade Rating Definitions

The following definitions are quoted from Standard & Poor's Debt Ratings Criteria - Industrial Overview:

- BB Debt rated BB has less near-term vulnerability to default than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions which could lead to inadequate capacity to meet timely interest and principal payments.
- B Debt rated B has a greater vulnerability to default but currently has the capacity to meet interest payments and principal repayments. Adverse business, financial, or economic conditions will likely impair capacity or willingness to pay interest and repay principal.
- CCC Debt rated CCC has a currently identifiable vulnerability to default and is dependent on favorable business, financial, and economic conditions to meet timely payment of interest and repayment of principal. In the event of adverse business, financial, or economic conditions, it is not likely to have the capacity to pay interest and repay principal.
- CC The CC rating category is typically applied to debt subordinated to senior debt^a that is assigned an actual or implied CCC rating. (No bonds were rated in this category between 1982 and 1987.)
- C The C rating category is typically applied to debt subordinated to senior debt that is assigned an actual or implied CCC- rating.

Plus (+) or minus (-): The ratings from BB to CCC may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories. (We combined these into the aggregate basic rating category.)

^a In general terms, in the event of a liquidation senior bond holders have payment priority over subordinated bond holders. Subordinated debt usually is rated lower than senior debt in order to better reflect relative position of the obligation in bankruptcy.

Figure I.3: Standard & Poor's Rated Bond Issues (Percentage rated by category)

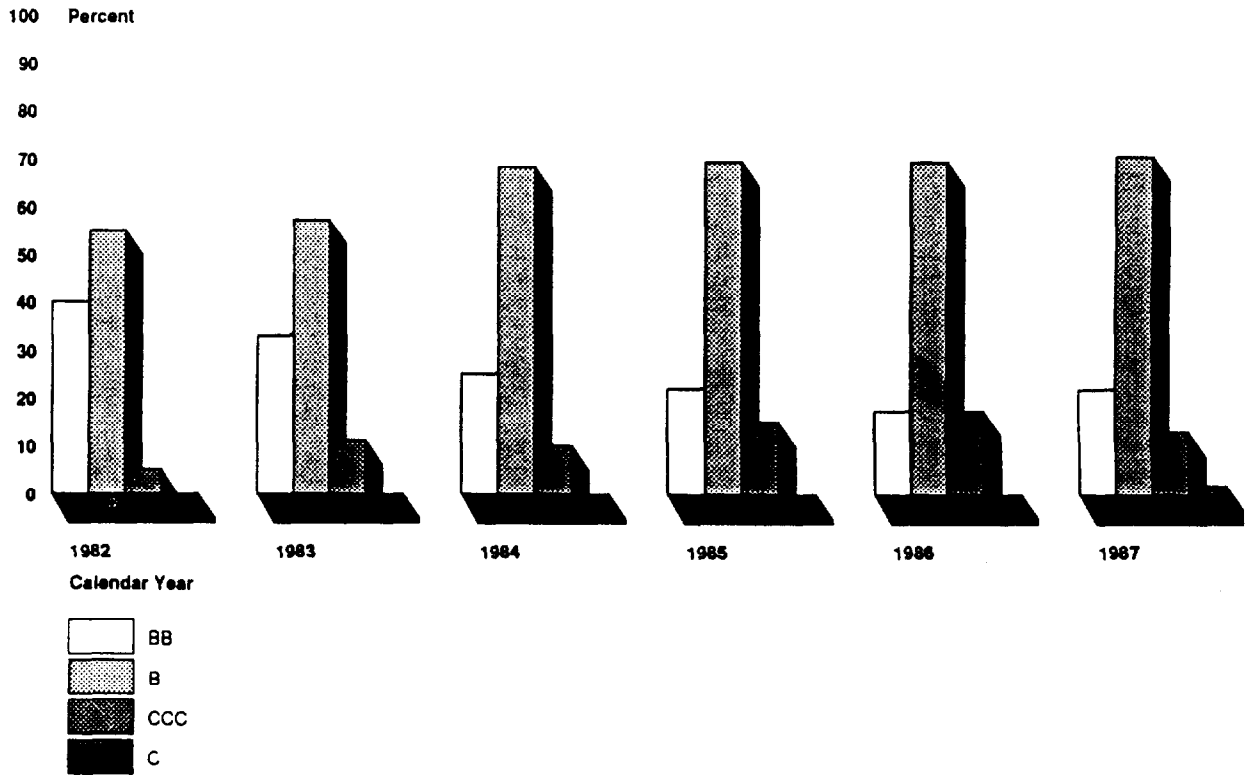


Table I.4:

New Bond Issues Rated As Non-Investment
Grade By Moody's By Rating Category

Rating Category ^a	1982		1983		1984		1985		1986		1987	
	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)	Number	Face Value (millions)
Ba	15	1110	18	2075	30	5870	48	5195	45	7388	17	2395
Percent of total	42%		30%		30%		34%		23%		11%	
B	21	1270	40	2795	68	7016	91	8720	139	21368	138	24846
Percent of total	58%		67%		69%		64%		72%		87%	
Caa			2	100	1	130	3	260	8	755	4	692
Percent of total			3%		1%		2%		4%		3%	
TOTAL	36	2380	60	4970	99	13016	142	14175	192	29511	159	27933
Percentage total ^b	100%		100%		100%		100%		100%		100%	

^a Moody's definitions of each of these non-investment grade rating categories are shown on the following page.

^b Totals may not add to 100 due to rounding.

Source: IDD Information Services, Inc. (see app. V, p. 35)

Table I.4:

Moody's Non-Investment Grade Rating Definitions

The following definitions are quoted from Moody's Bond Record:

- Ba Bonds which are rated Ba are judged to have speculative elements; their future cannot be considered well assured. Often the protection of interest and principal payments may be very moderate and thereby not well safeguarded during other good and bad times over the future. Uncertainty of position characterizes bonds in this class.
- B Bonds which are rated B generally lack characteristics of the desirable investment. Assurance of interest and principal payments or of maintenance of other terms of the contract over any long period of time may be small.
- Caa Bonds which are rated Caa are of poor standing. Such issues may be in default or there may be present elements of danger with respect to principal or interest.
- Ca Bonds which are rated Ca represent obligations which are speculative in a high degree. Such issues are often in default or have other marked shortcomings. (No bonds were rated in this category from 1982 to 1987.)
- C Bonds which are rated C are the lowest rated class of bonds and issues so rated can be regarded as having extremely poor prospects of ever attaining any real investment standing. (No bonds were rated in this category from 1982 to 1987.)

Moody's applies numerical modifiers, 1, 2 and 3, in each generic rating classification from Aa to B in its corporate bond rating system. The modifier 1 indicates that the security ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates that the issue ranks in the lower end of its generic rating category. (We combined these into the appropriate basic rating category.)

Figure I.4: Moody's Rated Bond Issues (Percentage rated by category)

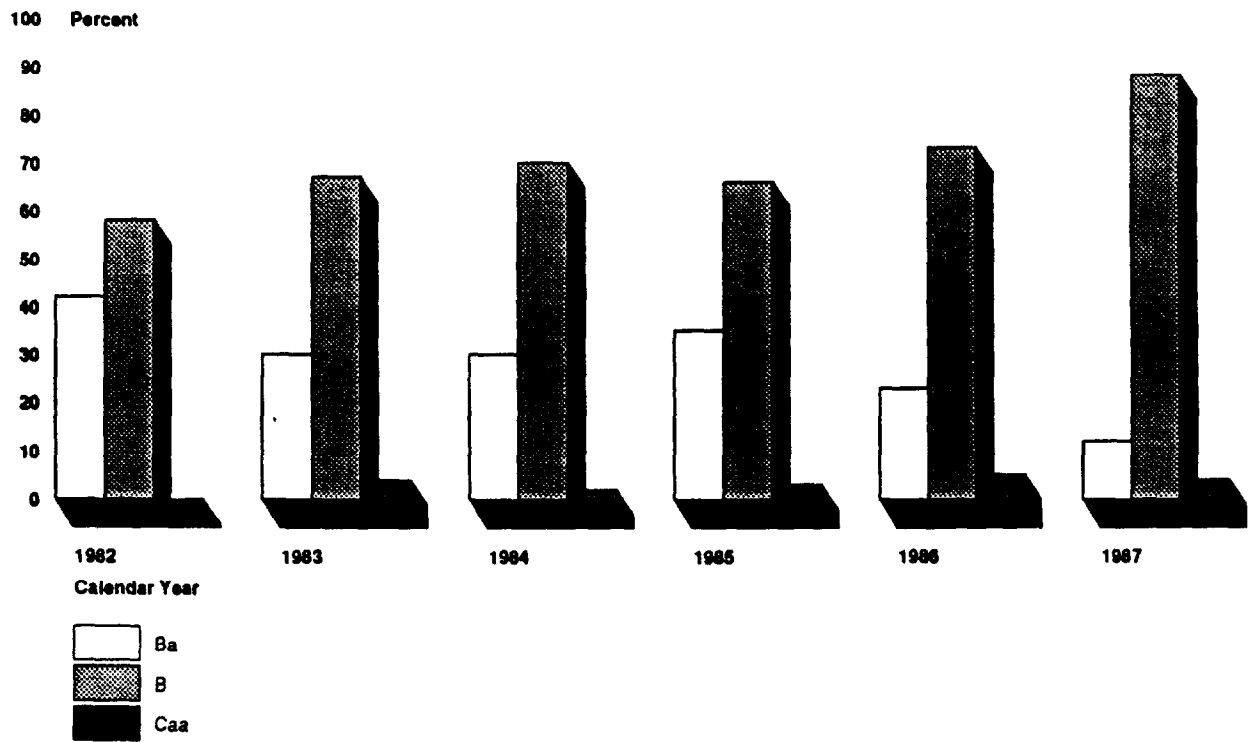


Table I.5:

Industry Classification of
Non-Convertible High Yield Bond Issuers
(January 1, 1982 - December 31, 1987)

<u>Industry</u>	<u>Number of issuers</u>	<u>Percent</u>
Agriculture, Forestry, and Fisheries	3	< 1
Mining	31	5
Contract Construction	20	3
Manufacturing	194	31
Transportation, Communication, Electric, and Sanitary Services	84	14
Wholesale and Retail Trade	77	12
Finance, Insurance, and Real Estate	117	19
Miscellaneous Investing Institutions	14	2
Services	<u>82</u>	<u>13</u>
Total	<u>622</u> =====	<u>100</u> ===

Source: IDD Information Services, Inc. (see app. V, p. 35)

PURCHASERS OF HIGH YIELD BONDS

According to investment bankers, the primary purchasers of high yield bonds are mutual funds, insurance companies, pension funds, individuals, and thrift institutions. Drexel Burnham Lambert, which was the lead underwriter for about 46 percent of the dollar amount of publicly traded high yield bonds issued in 1986, estimates the bonds are held by the following groups:

	<u>Percent</u>
Mutual funds, money managers	32
Insurance companies	30
Pension funds	10
Individuals	10
Savings and loans	7
Foreign investors	3
Corporations	3
Securities dealers	1
Other	4
Total	<u>100</u>

Another investment banking firm, Salomon Brothers, also identified these as the main groups of investors. An official in Salomon's high yield bond department told us that mutual funds own about one-third to one-half of the bonds, insurance companies about 10 to 20 percent, pension funds about 10 to 20 percent, and individuals, savings and loans, and foreign investors combined owned the remaining percentage.

Mutual Funds and Insurance Companies

According to data provided by Lipper Analytical Services, a firm which maintains data on mutual funds, the growth of high yield bond funds--funds which invest principally in non-investment grade bonds--has been significant. As of December 31, 1981, there were 23 high yield bond mutual funds with \$3.1 billion in assets. By September 30, 1987, there were 72 high yield bond funds with \$30.2 billion in assets (see table II.1, p. 24).

Data provided by the National Association of Insurance Commissioners (NAIC), a group representing state insurance commissioners, showed that as of the end of 1986, insurance companies held \$37.3 billion in non-investment grade bonds. Of this total, life insurance companies held \$33.4 billion, representing 3.5 percent of their assets, and property/casualty insurance companies held \$3.9 billion, representing 0.9 percent of their assets. These totals include privately placed bonds which NAIC has rated as equivalent to non-investment grade bonds.

According to information provided by NAIC, of over 4400 insurance companies, 35 companies (16 life and 19 property/casualty) held more than 20 percent of their assets in non-investment grade bonds as of December 31, 1986. Two life insurance companies and two property/casualty insurance companies had over 50 percent of their assets invested in non-investment grade bonds, and one property/casualty company invested over 80 percent of its assets in these bonds.

Pension funds

The Employee Retirement Income Security Act (ERISA) requires that pension funds be prudently administered and that investments be diversified so as to minimize the risk of large losses. Investments which would present a conflict of interest are prohibited. Neither ERISA nor Department of Labor regulations prohibit or restrict pension funds from investing in high yield securities, and high yield security holdings are not specifically required to be reported to Labor.

Department of Labor officials told us that pension fund assets total about \$1.4 trillion. If pension funds do purchase about 10 percent of the high yield bonds issued, as Drexel estimated, pension funds could have held about \$14 billion of the \$137 billion in publicly traded high yield bonds estimated to be on the market as of mid-1987. This represents about 1 percent of total pension fund assets.

Although it appears that, in total, pension funds may not have a large percentage of their assets invested in high yield bonds, it is possible that individual funds may. However, we were not able to determine from records available at the Department of Labor if this is the case because (1) there is no requirement that high yield investments be reported separately from other investments on the pension funds' annual reports to Labor and (2) the investment data available is not current--the most recent forms on file at Labor are for either 1984 or 1985. Labor officials told us they were not aware of any specific problems relating to pension fund investments in high yield bonds.

Federally insured institutions

Federally insured commercial banks are discouraged from investing in high yield bonds because of Comptroller of the Currency (OCC), Federal Reserve Board (FRB) and Federal Deposit Insurance Corporation (FDIC) restrictions. These restrictions are as follows:

-- National Banks (chartered and supervised by the

Comptroller of the Currency). According to OCC policy, national banks are authorized by 12 USC 24 and by 12 CFR 1 to acquire limited amounts of corporate debt securities which are both marketable and commonly regarded as "investment securities," or not predominately speculative in nature. OCC policy states that "corporate debt securities used to finance corporate takeovers are generally considered to be predominately speculative with limited marketability. Accordingly, the OCC views national bank commitments to acquire such 'junk bonds' as violations of 12 USC 24 and 12 CFR 1." According to OCC officials, there is no clear federal law governing the question of bank trust departments investing in high yield bonds, though most states have statutes concerning "trust quality" investments.

- State Chartered Commercial Banks. State chartered banks that are authorized under state law to invest in corporate debt obligations and which become members of the Federal Reserve System are subject to the same limits on corporate debt investments imposed on national banks. State banks that obtain FDIC insurance but do not become members of the Federal Reserve System are subject to supervision by the FDIC. FDIC does not have regulations limiting state banks' investments in various categories of debt. However, FDIC's evaluation of securities held by these banks influences the types of securities they choose. Utilizing the Uniform Agreement on the Classification of Assets and Appraisal of Securities Held by Banks, FDIC examiners value securities, which in turn affects the adequacy of the bank's capital and the performance rating ultimately assigned to the bank. An FDIC official told us an institution acquiring below investment grade securities would be "subject to criticism." This means a non-investment grade bond would be classified "substandard" and considered together with other classified assets in assessing the adequacy of capital and the overall financial condition of the bank.

In contrast to the restrictions on commercial banks, federally insured savings and loan associations and savings banks are permitted to invest in high yield securities. Federally chartered thrifts may invest up to 1 percent of their assets in corporate debt securities, including high yield bonds. In addition, they can invest another 10 percent of their assets in commercial loans, which FHLBB has determined can include high yield bonds. As a result, federally chartered thrifts may invest as much as 11 percent of their assets in high yield bonds. State chartered thrifts which are insured by the Federal Savings and Loans Insurance Corporation (FSLIC) are subject to state regulations. FHLBB officials have testified that some states

permit thrifts to invest in high yield securities above the 11 percent limit on federal thrifts.

Since June 1985, FHLBB has required FSLIC insured institutions to report their holdings of high yield, non-investment grade securities. Table II.2 (p.25) shows that total high yield bonds held by thrift institutions increased from about \$5.7 billion in June 1985 to about \$11.1 billion in September 1987, an increase of about \$5.4 billion, or 94 percent.

According to FHLBB data, of the 149 institutions which held high yield bonds as of September 1987, 10 institutions held about \$8.7 billion, or about 78 percent of the total. Of these 10 institutions, 6 had over 10 percent of their assets invested in high yield bonds, and 2 held over \$1 billion in high yield bonds. Of these two, one held over \$3.2 billion in bonds, which represented about 33 percent of its assets, and the other held about \$1.3 billion or about 13 percent of its assets. Over 46 percent of the \$5.4 billion total increase in high yield bond holdings since June 1985 was due to additional investments by these two institutions. In total, 11 institutions had 10 percent or more of their assets invested in high yield securities as of September 1987. These institutions were located in California, Florida, Ohio, and Texas. Of the 149 institutions which held high yield bonds as of September 1987, 10 held \$294 million or more each, 17 held \$50 million or more and less than \$294 million each, and 122 held less than \$50 million each.

Table II.1:

Growth in High Yield Mutual Funds

<u>Date</u>	<u>Number of funds</u>	<u>Net assets (in billions)</u>
12/31/81	23	\$3.1
12/31/82	24	4.6
12/31/83	26	5.8
12/31/84	36	6.7
12/31/85	40	13.9
12/31/86	52	25.9
9/30/87	72	30.2

Source: Lipper Analytical Services

Table II.2:

High Yield, Non-Investment Grade
Bonds Held by FSLIC Insured Institutions

<u>As of</u>	<u>Number of institutions holding high yield bonds</u>	<u>Book value of high yield bonds held (in billions)</u>	<u>High yield bonds as a percent of total net assets of all FSLIC institutions</u>
6/30/85	111	\$5.74	0.6
9/30/85	120	5.17	0.5
12/31/85	120	5.59	0.5
3/31/86	125	6.04	0.6
6/30/86	127	6.58	0.6
9/30/86	126	7.22	0.6
12/31/86	129	7.57	0.6
3/31/87	128	8.28	0.7
6/30/87	133	9.97	0.8
9/30/87	149	11.13	0.9

Source: Federal Home Loan Bank Board thrift financial reports,
June 1985 through September 1987.

CALIFORNIA THRIFT INSTITUTIONS
WITH SIGNIFICANT HIGH YIELD BOND INVESTMENTS

During November and December 1987, we visited six California thrifts with high yield bond holdings in excess of either \$100 million or 10 percent of the thrift's assets. Five of these ranked in the top 10 thrifts holding high yield bonds. As of September 1987, the high yield bond portfolio for the six thrifts ranged from approximately \$57 million to \$3.2 billion and from 3 percent to 33 percent of their assets.

Thrift officials told us that they invested in high yield bonds because of the high yields and manageable risk associated with the high yield bond market. They said that these bonds yield about three and a half to four percent over Treasury notes and bonds and indicated that this yield more than compensates for any additional risk. They also said that liquidity is an important reason to invest in high yield bonds because, in contrast to commercial loans, a secondary market exists for buying and selling high yield bonds.

Each thrift had established written investment policies and procedures and created some form of an investment committee. The investment strategies which these written guidelines, policies, and procedures represented varies. For example, one institution's policies call for investment in new issues and private placements and investment in issues Standard and Poor's rated CCC and below. Another institution's policies call for investing almost equally in new issues and the secondary market, discourage investment in private placements, and emphasize purchasing securities rated only in the top tier of high yield bond issues (B+ or BB). In addition, there appeared to be a direct correlation between the size of the institution's high yield bond portfolio and the number of staff devoted to managing the portfolio.

About \$79 million of the \$5.4 billion in high yield bonds held by four of the thrifts we visited have defaulted; two institutions have not had a bond default. The thrifts with defaulted bonds had recovered about \$36 million of the \$79 million book value of the bonds as of December 1987 (see table III.1, p.28). The size of loss reserves the thrifts established for their high yield bond portfolios differed. Reserves varied from one-half to 2 percent of the portfolio's book value. Officials at each thrift told us that the reserves they established are sufficient to cover anticipated losses. They also said that the stock market crash of October 19 had little effect on their portfolios.

Officials at four thrifts said under current policy they refrain from purchasing original issues used to finance hostile takeovers. Officials at two of these thrifts said it was stated corporate policy not to buy bonds used for hostile takeovers and officials at the other two said the credit risk uncertainty was too great. Officials at the two remaining thrifts said that they do consider purchasing bonds being issued to finance takeovers, basing their decision to buy on whether the bond issue is a sound credit risk.

Table III.1:
Schedule of High Yield Bond Default
 and Recovery Data as of December 1987
 for Six California Thrifts

<u>Thrifts</u>	<u>Current investment (book value) (millions)</u>	<u>Number of bond issues defaulted</u>	<u>Book value of bonds defaulted (millions)</u>	<u>Dollar amount recovered (millions)</u>	<u>Dollar loss (millions)</u>	<u>Percent recovered</u>
Thrift A	\$ 67.5	0	\$ 0.0	\$ NA	\$ 0.0	NA
Thrift E	329.5	0	0.0	NA	0.0	NA
Thrift B	377.4	1	1.5	0.2	1.3	13
Thrift C	550.0	4	23.6	13.4	10.2	57
Thrift D	1,116.6	2	9.1	3.2	5.9	35
Thrift F	<u>3,388.4</u>	<u>10</u>	<u>45.0</u>	<u>19.5</u>	<u>25.4</u>	<u>43</u>
	<u>\$ 5,829.4</u>	<u>17</u>	<u>\$ 79.2</u>	<u>\$ 36.3</u>	<u>\$42.8</u>	<u>46</u>

 NOTES: NA = Not Applicable

SOURCE: Based upon information provided by the thrifts.

PURPOSES FOR ISSUING HIGH YIELD BONDS

High yield bonds can be issued for a variety of purposes, including working capital, expansion, refinancing of other debt, and the financing of mergers and acquisitions. The latter purpose is the most controversial. Congress and others have expressed concern regarding the extent to which high yield bonds are used to finance corporate takeovers, especially hostile takeovers.

To determine the reasons why high yield bonds are issued and the extent to which they are used to finance hostile corporate takeovers, we used two approaches. First, we reviewed a randomly selected sample of the prospectuses for 124 high yield bond issues from a universe of 333 issues offered from January 1, 1986 through June 30, 1987, and categorized the stated reasons for the bond issue. We also reviewed the subsequent quarterly (SEC form 10-Q) or annual (SEC form 10-K) financial statements filed with the SEC by the issuer to verify the actual use of the proceeds. Our second approach was to review the sources of financing as reported to the SEC in 1985 and 1986 for nonfinancial corporate hostile tender offers which resulted in a takeover by the hostile bidder or by a "white knight."

Our review of 124 prospectuses in 1986 and 1987 disclosed 16 which stated that the proceeds were to be used for the acquisition of a particular company. We confirmed that each takeover occurred by referring to the subsequent quarterly report of the acquiring company. We also found that 19 prospectuses indicated that at least a portion of the proceeds would be used for future acquisitions. Twenty-eight prospectuses stated that all or part of the proceeds would be used to retire debt incurred in previous acquisitions. Of the 124 prospectuses, 66 showed that bonds were issued for more than one purpose. We found that in many cases the prospectus did not provide a clear indication of the allocation of proceeds among the purposes. Table IV.1 (p.31) summarizes our review of high yield bond prospectuses and shows sampling errors.

We also reviewed the sources of financing for the 54 takeovers of nonfinancial corporations that began with a hostile tender offer in 1985 and 1986. Thirty-three of these were transactions in which the target of a hostile tender offer was successfully taken over by the bidding company, and 21 were transactions in which the target was subsequently acquired

by a "white knight."² We determined the sources and amounts of financing from the tender offer statement (SEC form 14D-1), quarterly reports, annual reports, or prospectuses filed with the SEC by the acquirer. In some cases, these documents did not associate specific amounts of financing with specific sources. We estimated the amounts by comparing and analyzing data available from all the sources.

Bank borrowing was the most frequently used source of financing for the 54 takeovers we studied. It was used in 39 of the 54 transactions representing about 42 percent of the total amount financed for the 2 years. Publicly traded high yield bonds were used in 12 of 54 transactions and accounted for about 12 percent of the total amount financed in 1985 and 1986. Privately placed debt, including bonds and non-bank loans, was used in 12 of the 54 transactions, comprising about 9 percent of the total amount financed for the 2 years.

In some cases, debt incurred in the acquisition including bank loans, privately placed debt, and bridge loans, was later refinanced with high yield, non-investment grade bonds. In 1985 some of the financing for two hostile takeovers and two white knight transactions was refinanced with publicly traded high yield bonds. Part of the financing for five hostile takeovers and two white knight transactions in 1986 was also refinanced with high yield bonds. In addition, of the 12 cases where privately placed debt was used, 3 bond issues were subsequently registered with the SEC and became publicly traded high yield bonds. When refinancing of acquisition debt and private placement registrations are considered, high yield bonds accounted for about 22 percent of the total amount financed for the 54 transactions we studied. Tables IV.2 (p. 32) and IV.3 (p. 34) summarize our analysis of the financing of hostile takeovers and white knight transactions in 1985 and 1986.

² We did not review (1) transactions where the target remained independent, (2) transactions valued below \$10 million, (3) transactions where the payment method was a non-cash exchange of stock, or (4) transactions where we were unable to determine sources of financing or outcome.

Table IV.1:

Use of Bond Proceeds for
124 Randomly Selected High Yield Bond Issues
January 1, 1986, to June 30, 1987

<u>Category</u>	<u>Total</u>	<u>Percent¹</u>
Acquisitions	16	13
Future Acquisitions	19	15
Retire Debt of Previous Mergers and Acquisitions	28	23
Retire Debt	66	53
General Corporate Purposes	77	62
Mergers	9	7

Note: Sixty-six bonds were issued for more than one purpose. As a result, the category sum is greater than 124 and therefore the percentage sum is greater than 100 percent.

Source: Prospectuses as well as quarterly and annual reports filed with the SEC.

¹ The percentage shown in this column can be projected to the universe of 333 issues. The sampling error is less than + 7% for each category except the last, "mergers", where the sample error is + 4%.

Table IV.2:

Sources of Financing
Hostile Takeovers and White Knight Transactions
January 1, 1985, to December 31, 1986

<u>Financing Source</u>	1985		1986		<u>Total</u>
	<u>Hostile Takeovers</u>	<u>White Knights</u>	<u>Hostile Takeovers</u>	<u>White Knights</u>	
	(All dollar figures are in millions)				
Publicly traded high yield bonds					
Total amount	\$ 1,496	\$ 240	\$ 1,120	\$ 2,397	\$ 5,253
% of total financing	15.7%	4.0%	8.0%	16.3%	11.9%
# of transactions	5	2	2	3	12
Privately placed debt ^a					
Total amount	\$ 1,686 ^b	\$ 684	\$ 839	\$ 547	\$ 3,756
% of total financing	17.7%	11.3%	6.0%	3.7%	8.5%
# of transactions	5	2	2	3	12
Bank borrowing ^c					
Total amount	\$ 4,930	\$ 2,332	\$ 6,820	\$ 4,577	\$18,659
% of total financing	51.7%	38.5%	48.9%	31.1%	42.2%
# of transactions	11	5	17	6	39
Internal funds					
Total amount	\$ 1,076	\$ 234	\$ 932	\$ 469	\$ 2,711
% of total financing	11.3%	3.9%	6.7%	3.2%	6.1%
# of transactions	7	2	9	5	23
Sale of stock					
Total amount	\$ 349	\$ 1,229	\$ 2,457	\$ 409	\$ 4,444
% of total financing	3.7%	20.3%	17.6%	2.8%	10.0%
# of transactions	3	3	5	7	18
Other ^d					
Total amount	—	\$ 1,346 ^e	\$ 1,779 ^f	\$ 6,317 ^g	\$ 9,442
% of total financing	—	22.2%	12.8%	42.9%	21.3%
# of transactions	—	2	5	6	13
Total dollar value of transactions ^h	\$ 9,537	\$ 6,065	\$ 13,945	\$14,717	\$44,264
Total % of financing	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
Number of transactions reviewed	13	8	20	13	54

Footnotes to Table IV.2

- a Privately placed debt securities and non-bank loans.
- b Of this total, \$970 million was later registered and became publicly traded high yield debt.
- c In each category, a portion of the bank borrowing was later refinanced or retired with high yield debt. (See table IV.3.)
- d We determined that none of the financing in this category includes high yield bonds.
- e In both cases, documents filed by the acquirer do not provide enough information to associate specific sources and amounts of financing.
- f Includes one transaction which used \$1 billion of investment grade debt (7.2% of total financing), one transaction which used \$382 million from the sale of assets (2.7% of total financing), one transaction which used \$150 million of bridge loan financing (1.1% of total financing) and a \$38.7 million capital contribution from outside investors (0.3% of total financing), and two transactions where documents filed by the acquirer do not provide enough information to associate specific sources and amounts of financing (\$208 million, 1.5% of total financing).
- g Includes two transactions which used \$1,860 million of investment grade debt (12.6% of total financing), one transaction which used a \$320 million loan from a partnership formed by outside investors (2.2% of total financing), one transaction which used \$225 million of bridge loan financing from an investment bank (1.5% of total financing), and two transactions where the documents filed by the acquirer do not provide enough information to associate specific sources and amounts of financing (\$3,912 million, 26.6% of total financing).
- h Figures may not sum to totals due to rounding.

Table IV.3:

High Yield Bonds Issued to
Refinance Acquisition Debt

<u>Bidder/Target</u>	<u>Total financing other than high yield bonds^a (\$000,000)</u>	<u>Amount refinanced using high yield bonds (\$000,000)</u>	<u>Type of debt refinanced^b</u>
<u>1985 hostile takeovers</u>			
The Coastal Corporation/American Natural Resources Company	\$2,250	\$ 877	BL
MAXXAM Group Inc./The Pacific Lumber Company	750	555	BL, PP
<u>1985 white knight transactions</u>			
Crane Co./UniDynamics Corporation	170	74	BL
International Controls Corp./Transway International Corporation	192	142	BL
<u>1986 hostile takeovers</u>			
Mark IV Industries, Inc./Gulton Industries, Inc.	94	94	BL
The Swan Brewery Company Limited/ Pittsburgh Brewing Company	15	15	BL
LNC Industries Limited/Victory Markets Inc.	70	35	BL
W Acquisition Corp./Warnaco Inc.	525	330	PP
PCN Acquisition Corp./Ponderosa, Inc.	290	120	BR
<u>1986 white knight transactions</u>			
Management/National Gypsum Company	710	291	BL
Management/Safeway Stores, Incorporated	3,170	960	BL, BR

a) Excludes high yield bonds and internal funds initially used to finance the transaction.

b) Codes in this column are as follows: BL - Bank loan; BR - Bridge loan; PP - retirement of private placement debt.

SCOPE AND METHODOLOGY

To identify the issuers of high yield, non-investment grade bonds, we acquired a database from IDD Information Services, Inc., New York, New York. IDD maintains a database of original issue securities which is developed from prospectuses filed with the Securities and Exchange Commission (SEC), direct contacts with investment bankers, and financial news services. In acquiring the database, we specified that it include all publicly traded bonds (non-convertible and convertible) originally issued with a non-investment grade rating from Moody's or Standard & Poor's between January 1, 1982, and December 31, 1987. We also specified that non-rated bonds which have equivalent characteristics to below investment grade bonds be included in the data base. We did not independently verify the accuracy of the IDD database. However, we discussed IDD's quality assurance procedures with their officials and believe that if their procedures are properly implemented, the database should be adequately maintained. Further, the database is widely used in the financial industry.

We obtained general information on the identity of bond purchasers through discussions with and material obtained from investment bankers active in the high yield bond market. As agreed with the Senate Committee on Banking, Housing and Urban Affairs, we did not attempt to identify in detail the purchasers of high yield bonds, except that we obtained a list from the FHLBB of federally insured thrift institutions which own high yield bonds. Other federally insured institutions generally do not own high yield bonds.

From the database of high yield bonds issued in 1986 and 1987, we randomly selected and reviewed a sample of prospectuses and related quarterly and annual reports (10-Q and 10-K statements) filed with SEC to determine the stated purpose for issuing these bonds. Also, to determine the extent to which high yield bonds are being used to finance hostile takeovers, we reviewed and analyzed financing data pertaining to takeover attempts in 1985 and 1986 which SEC or W. T. Grimm & Company, a firm which monitors mergers and acquisitions, classified as hostile.

The Competitive Equality Banking Act requires a comparison of high yield bond investments to other investments. However, the financial statements that federally insured thrift institutions are required to file with the FHLBB do not contain sufficient data to compare risks and returns on high yield bond investments to other activities and investments. Instead, we attempted to obtain this information by visiting selected thrifts and reviewing related examination reports on file at the Federal

Home Loan Bank in San Francisco. Many of the thrifts which invest heavily in high yield bonds are located in California. Therefore, we visited six of seven California thrifts which had either 10 percent or more of their assets invested in high yield bonds or had a high yield bond investment in excess of \$100 million as of June 30, 1987. We held discussions with thrift officials and reviewed data on their high yield bond portfolio, investment policies and procedures followed, and other issues related to their high yield bond investments.

We also discussed high yield bond issues with representatives of the investment banking industry, bond rating agency officials, and officials of federal regulatory agencies. Our work was conducted in accordance with generally accepted government auditing standards.

GLOSSARY

Convertible Bond	A bond which can be converted into another security of the same corporation, such as common stock.
Friendly Takeover	A merger supported by the management and board of directors of the target company.
High Yield Bond	All issues which are either not rated by the major bond rating agencies, or are rated at least one rating below "investment grade." Includes Standard & Poor ratings of BB, B, CCC, CC, and C, and Moody ratings of Ba, B, Caa, Ca, and C. Also referred to as junk bonds, speculative grade bonds, or non-investment grade bonds.
Hostile Takeover	A merger or acquisition resisted by the acquired firm.
Investment Banker	A financial intermediary, one of whose functions is to advise firms involved in or contemplating mergers and acquisitions. An investment banker's services may include selecting target firms, formulating strategy and tactics, and arranging financing.
Investment Grade Bond	A bond rated in one of the four highest bond rating categories by the major bond rating agencies. For Standard and Poor's this category includes AAA, AA, A, and BBB ratings. For Moody's this category includes Aaa, Aa, A, and Baa ratings.
Tender Offer	A public offer to buy some or all of the stock of a corporation within a specified time period. Notice of the offer must be filed with the Securities and Exchange Commission on Schedule 14D-1, disclosing, among other things, certain financial information about the transaction. To induce stockholders to tender their shares to the bidder the price offered is generally well above the market price of the stock.
White Knight	A third party who agrees to acquire a

target company, usually at that company's request, as an alternative to a hostile takeover by another bidder. The merger proposed by the "white knight" generally offers terms more favorable to the target company's management as well as a higher price per share to stockholders.

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