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FLOATING RATE NOTES: A HISTORY OF THEIR PERFORMANCE. COMPARED TO CONVENTIONAL BONDS

By

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B.S., Troy State University, 1982

Presented in partial fulfillment of the requirements for the degree of

Master of Business Administration

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1985

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Chairman, Board of Examiners

Dean, Graduate School

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INTRODUCTION

The 1970s brought times of rapid and intense inflation accompanied by high and unstable interest rates. The various markets and institutions dealing with fixed income securities were, perhaps, most strongly affected. One reaction has been the introduction of the floating rate note, whose variety and adaptability provide certain advantages for both the issuer and the purchaser. Even the United States Treasury Department is "jumping on the bandwagon" with series EE floating rate bonds. Floating rate corporate notes originated in Europe, and were first introduced in the United States in 1974 when a total of \$1.3 billion worth were sold. The floating rate note interest yield is determined by currently prevailing rates and not the rates which were in effect at the time of issuance. The purpose of this design is to stabilize the price or value of the "contract."

This report presents a brief history of the use of floating rate notes, and an analysis of how floating rate notes have performed, from January 1979 through December 1984, compared to conventional bonds. The findings will serve as a guide for

¹John C. Cox, "An Analysis of Variable Rate Loan Contracts," The Journal of Finance, May 1980, p. 389.

those individuals interested in the general characteristics of floating rate notes currently outstanding.

Primary research will be limited to data obtained on a random sample of ninety-three floating rate notes offered by forty companies from the 1984 Moody's Bank and Financial Manual, Volumes 1 and 2. Secondary data will be drawn primarily from the Federal Reserve Bulletin and will be used in the analysis of the primary data.

BRIEF HISTORY OF FLOATING RATE NOTES

The Origin of Floating Rate Notes

Floating rate notes originated in Europe and first appeared in the United States in 1974, when Citicorp sold \$650 million worth of its fifteen-year notes (which is still the largest floating rate issue ever sold in the United States).² The rate on these notes was set at a minimum of 9.7 percent for the first ten months and thereafter at 1 percent above the three-month United States Treasury Bill rate. The rate would be adjusted semi-annually.

The success of the Citicorp offering, which was increased from an original size of \$250 million worth, attracted other borrowers. Within a few months, six other issues, ranging in size from \$40 million worth to \$200 million worth, were sold.

Floating rate notes had obvious attractions for borrowers in 1974. Interest rates were at historically high levels and expected to decline, so floating rate note borrowing over the longer term would cost less on average than fixed rate, long term debt. At the time of the Citicorp issue, commercial paper rates were well above U.S. Treasury bill yields. In July 1974 the

²Kenneth R. Marks, "Hedging Against Inflation With Floating Rate Notes," Harvard Business Review, March-April 1982, p. 106.

three month prime commercial paper rate was 11.9 percent, while U.S. Treasury bills of similar maturity yielded only 7.6 percent.³ Since Citicorp's floating rate note rates were based on U.S. Treasury bill yields, the floating rate note initially promised a cheaper and more assured source of funds than commercial paper.

Introduction of the Put Feature

The adjustable yields of floating rate notes, of course, led to uncertainty, both to the issuer and to the borrower. Hedging became a common strategy for offsetting uncertainty. The 1974 floating rate note borrowers were able to find lenders (who were the individual savers in this case) to whom commercial paper or other short term money market instruments did not represent a realistic alternative investment opportunity. With one exception, each of the 1974 floating rate notes had a "put" feature that allowed holders to redeem the notes at their discretion, beginning about two years after issuance.

The "put" feature made floating rate notes extremely attractive to individuals who were often limited to rates paid by savings institutions. In essence, floating rate notes served to intermediate savings deposits (bankers would call this "disintermediation"). Even so, as each new issue appeared, the demand for floating rate note issues in 1974 declined.

 $^{^{3}}$ Ibid., p. 107.

The "put" feature proved to be a flaw in the 1974 floating rate notes. When short term U.S. Treasury bill rates declined in 1975 and 1976, interest rates on floating rate notes were no longer attractive to savers, and a majority of investors returned the notes to the issuers. Citicorp, for example, was obliged to redeem 56 percent of its issue in 1976, and by the end of 1978 only 27 percent of the original issue remained outstanding.⁴ As a result, the 1974 floating rate notes provided their issuers with funds for only a short time.

Revival of Floating Rate Notes in 1978

By mid-1978 money market conditions were beginning to resemble those of 1974. Yields on six month U.S. Treasury bills rose from less than 5 percent in January to about 7.5 percent in July 1978, and many economists were forecasting double digit interest rates by the end of 1978. Lenders again became wary of long term fixed rate commitments.

Citicorp, again, led the way in raising long term funds using a floating rate note, issuing \$200 million worth of twenty year notes in July 1978, with an interest rate set at 1.2 percent about the six month U.S. Treasury bill rate for the first five years. This time the issue was designed for sale to institutional investors. The "put" feature was deleted to ensure a long term source of funds, a minimum interest rate of 7.5 percent was established to protect the investor, and a sinking fund,

⁴Ibid.

beginning in 1989, would retire 90 percent of the notes before maturity. The absence of the "put" feature was the only reason individuals were not expected to be major buyers. In addition, alternate investments like certificates issued by savings and loan institutions that also offered yields keyed to U.S Treasury bill rates, and the money market funds with high and floating yields were available that did not exist in 1974.

Eurobond Market Developments

Floating rate notes accounted for 40.6 percent of new issues on the Eurodollar bond market in 1983, up from 28.7 percent in 1982.⁵ The total value of new issues was \$14.5 billion (which is a record), and in 1983, Credit Suisse-First Boston (of Sweden) was the first to record a \$1 billion or greater issue.⁶

At the end of 1983, floating rate notes issued by such investors as Sweden offered yields of between twenty and forty basis points over the London Interbank Offered Rate. Now investors in issues of similar quality are lucky to receive fifteen basis points over the London Interbank Offered Rate. The result is, of course, smaller returns to investors. But

⁵The Economist, "Floating Rate Notes: In Danger of Drowning," 18 February 1984, p. 82.

^{6&}lt;sub>Thid</sub>

^{7&}lt;sub>Thid</sub>

these narrow returns remained acceptable to the buyers partly because the growth in turnover on the secondary market for floating rate notes has given investors such as banks a far more liquid asset than a straight loan. Buyers are attracted by the floating rate note market's liquidity. Although the note may have a ten to twenty year maturity, it can be sold quickly and in large amounts without capital loss. In some cases, floating rate notes can be used like short term money market instruments.

Investment bankers responsible for developing the floating rate note market call what is happening the "disintermediation" of the commercial banks. Floating rate notes are eliminating the commercial banks' role of middleman between investors and borrowers because these notes allow investors to lend directly to the final borrowers by buying floating rate notes that borrowers issue. (This "elimination of the middleman" is similar to what happened in the United States when, in 1974, notes offered by several institutions had a "put" feature.) If the use of floating rate notes grows, it could significantly affect the profits of commercial banks overseas as well as those in the United States. More important, the banks' portfolios could become dominated by less desirable debt from developing coun-The banks are not getting new business at the same time as the quality portion of their sovereign portfolio is diminishing.

Although investment bankers may be "stealing" some of the commercial banks' traditional syndication business, the

commercial banks within the Eurobond market have been big issuers of floating rate notes as a new source of funding to replace certificates of deposit. The commercial banks have reconciled themselves to the fact that although lending funds raised by issuing floating rate notes may give them lower margins, they are generating business that they can no longer get with more traditional credits. As the floating rate note business in the Eurobond market has grown and matured, marketing has begun to play a more important role. So, to compete, the commercial banks are trying to gain an advantage with their huge retail networks. The firm that has the strongest distribution system may do best. Underwriters have sought to diversify the pool of floating rate note buyers to include thrifts, regional banks, central banks, pension funds, and corporations with idle cash.

Still, some commercial bankers continue to question the intrinsic value of floating rate notes. They claim that although spreads on floating rate notes are currently lower, borrowers can end up paying more interest than they would on a syndicated credit because borrowers have less flexibility in timing the day on which the underlying rate is fixed. If a treasurer is right in his guess on the movement of interest rates, he will save basis points compared with fixed, periodic revisions of interest rates. But if he is wrong, he would have done much better with floating rate notes.

So far, France and Sweden have been the most overt about using the floating rate note market to retire old debt. In July

1984 the French state-owned utility, Electricite de France, sold \$400 million worth of its fifteen year floating rate note at 12.5 basis points above the London Interbank Offered Rate. The idea as to save about twenty-five basis points of interest costs by refinancing existing syndicated credit lines.8

Growth of London Interbank Offered Rate Based Floating Rate Notes

Recently, floating rate notes issued in the United States have not been protecting institutions that buy them from the decline in bond prices that comes with rising interest rates. As a result, new variations of floating rate securities modeled on the stable, high yield "floaters" traded in the Eurodollar market are becoming more desirable. The industry is working to make floating rate notes more attractive and interest rates on new notes will probably be adjusted more often.

Most domestic floating rate note issuers readjust their rates each May and November, based on U.S. Treasury bill rates during fixed periods in April and October. Since interest rates increased and bond prices decreased between mid-April and mid-May 1984, the "reset" rates were below a rapidly increasing market rate on cash equivalents by the time the new rates took effect.

United States issuers, as a result, began moving more towards a London Interbank Offered Rate of Return, the standard for the larger Eurodollar market for floating rate notes. Other

⁸Businessweek, "The Battle Over Floating Rate Notes," 18 February 1984, p. 82.

changes now being implemented are a change to more frequent rate adjustments and quarterly instead of semi-annual interest payments.

The shift away from U.S. Treasury bill based notes is costly for issuers. Although the spread between U.S. Treasury bill rates are always higher. Investors see the London Interbank Offered Rate as a better index for their notes because it reflects both changes in interest rates and the market's sentiment about business conditions and credit quality. Furthermore, many market participants believe a London Interbank Offered Rate like return for domestic floating rate notes may more likely lead to price stability.

A brief history of floating rate notes was introduced in this section. Floating rate notes originated in Europe and first appeared in the United States in 1974. In 1978 market conditions revived the attractiveness of floating rate notes after a three year slump. Floating rate notes are becoming even more popular in the Eurobond market, accounting for 40.6 percent of new issues in 1983. The use of the London Interbank Offered Rate based notes is becoming more popular in the United States because investors see the London Interbank Offered Rate as a better index for their notes.

In the next section, a brief history of the ninety-three floating rate notes offered by the forty companies sampled in

⁹Businessweek, "Putting Buoyancy Back Into Floating Rate Notes," 9 July 1984, p. 93.

this paper will be presented. An explanation of the characteristics of each note will also be introduced.

CHARACTERISTICS OF SAMPLED NOTES

Brief History of Sampled Notes

Table 1 depicts the number of newly offered floating rate notes offered by the forty companies in this study and their respective introduction years. The total number (sixty-nine) of

TABLE 1
INTRODUCTION YEARS FOR NOTES

Introduction Year for Notes	Number of Notes Introduced	Percentage of Total Notes
1974	9	13.0
1975	0	0.0
1976	0	0.0
1977	0	0.0
1978	3	4.3
1979	19	27.5
1980	2	2.9
1981	4	5.8
1982	13	18.8
1983.	13	18.8
1984	6	8.9
Total	69	100.0

note introductions does not equal the total number of notes in the sample (ninety-three) because the introduction dates for twenty-four of the notes were not available. In 1974, nine floating rate notes were introduced, and in 1978 and 1979, interest in the floating rate notes was revived due to lenders'

fear of long term, fixed rate commitments and soaring interest rates. Most of the notes included in this sample were introduced between 1979 and 1984.

Companies that had long term requirements and wanted to fund them short term until long term rates fell to an acceptable level found floating rate notes to be attractive in 1974 and 1979. This probably explains part of the change in number of floating rate notes introduced by different companies between 1974 and 1979. From 1975 through 1977 only one floating rate note introduction was made (by Creditanstalt Bankverien of Vienna, Austria, one of the companies in this study), but it matured in 1984. One other floating rate note, introduced by Banque Nationale de Paris in 1978, matured in 1984. When interest rates declined in 1975, the advantage of floating rate notes practically disappeared. Since 1978 floating rate notes have increased in popularity.

By January 1979, U.S. Treasury bills were yielding almost ten percent and many forecasters were predicting even higher rates. Floating rate notes became attractive because the yield curve was sharply inverted, providing incentive for institutional investors to remain "short" until they felt that long term rates were peaking. Furthermore, many companies with losses in their fixed income portfolios arising from interest rate increases in 1978) were trying to avoid losses. As a result, they sought investments whose market prices would stay close to the purchase prices if interest rates continued to rise. In 1979, nineteen

issues totaling \$2.7 billion were completed. Companies and investors have realized the risk involved in constant rate notes. Floating rate notes will probably be used for many years to come because they help limit the possible loss and increase financial flexibility to both investors and corporations.

An example of the floating rate note feature incorporated by companies was shown in 1979 by Mellon National Corporation. Holders had the option of converting their notes into fixed rate debentures which earned 8.5 percent. Mellon National Corporation retained the right to convert the securities, at its option, to a fixed rate debenture whose rate would be set at the higher of 8.5 percent or 0.65 percent above the then prevailing rate on U.S Treasury bonds.

The popularity of the London Interbank Offered Rate based rate of return, as discussed above, is evidenced by the fact that four of the six notes offered in 1984 in this study have their yields based on the London Interbank Offered Rate. (These notes were offered by Wells Fargo, J. P. Morgan, Fleet Financial Group, and Kansallis Osake Pankki.)

This section presented a brief history of the floating rate notes offered by the forty companies in this study. The data shown in Table 1 support the trends discussed earlier. For example, floating rate note offerings were virtually nonexistent between years 1974 and 1978. In the next section a description of the floating rate notes included in this paper, their rates of

return compared to fixed rate, conventional notes (offered by the same forty companies), and other statistics will be discussed.

Description of Sampled Floating Rate Notes

As mentioned above, this paper concentrates only on a sample of those floating rate notes offered by companies listed in the 1984 Moody's Bank and Financial Manual, Volumes 1 and 2. The forty companies in this study had ninety-three floating rate notes outstanding as of the printing date of the 1984 manual (mentioned earlier). A description of each floating rate note introduced is depicted in Table 5, located in the Appendix. The descriptions are in tabular form for ease of comparison and study. Some information concerning several of the floating rate notes was not available, and therefore some calculations do not include all companies or all companies' floating rate notes.

The company name, current percentage return on each floating rate note (as of December 31, 1984), average current return on other bonds offered by each company, and the range in yield for other bonds is also shown. Current percentage returns were gathered from data presented in the 1984 Moody's Bank and Financial Manual, or calculated using U.S. Treasury bill, Eurodollar, London Interbank Offered Rate, or different countries' prime rates posted in the Federal Reserve Bulletin or Survey of Current Business. The adjustment period and adjustment factor for each of the floating rate notes is also given.

Most of the floating rate note yields are based on the percentage return on United States Treasury bills. Other yields are based on Eurodollar, London Interbank Offered Rate, or foreign prime lending rates. The 1982 and 1983 premiums for each floating rate note as well as their respective rating and maturity year are also shown. The dollar amount for each company's floating rate notes outstanding is also depicted. The ratio of long term debt in the form of floating rate notes versus other long term debt, and introduction dates for each floating rate note are provideed.

A description of each floating rate note and a comparison to other bonds offered by the forty companies in this study was presented in Appendix Table 5. Table 2 below shows how often the floating rate notes offered by the forty companies included in this report are adjusted. The semi-annual adjustment period is the most popular (40.9 percent) among the companies surveyed. Adjustment period data were not available for twenty-three notes.

The adjustment criteria for sampled notes is shown in Table 3. As mentioned above, U.S. Treasury bill rates are used more often (52.7 percent) than any other source in determining yields on floating rate notes. The Eurodollar or London Interbank Offered Rate was used in determining the return on eighteen of the ninety-three notes offered by companies in this study. The Italian and Canadian prime lending rates were used in

determining the yields on two of the notes and no adjustment criteria were available for twenty-four of the companies' notes.

TABLE 2
ADJUSTMENT PERIODS FOR SAMPLED NOTES

Adjustment Periods	Number of Companies' Notes	Percentage of Companies' Notes
Annual	4	4.3
Semi-Annual	38	40.9
Quarterly	22	23.6
Monthly	1	1.1
Weekly	5	5.4
Information Not Avail- able	23	24.7
Total	93	100.0

TABLE 3

ADJUSTMENT CRITERIA FOR SAMPLED NOTES

Adjustment Periods	Number of Companies' Notes	Percentage of Companies' Notes
Treasury Bill Rate Eurodollar or LIBOR	49 18	52.7 19.3
Italian Prime Rate	1	1.1
Canadian Prime Rate	1	1.1
No Adjustment Criteria Avail- able	24	25.8
Total	93	100.0

Additional statistics concerning the floating rate notes offered by the companies included in this report are shown in Table 4. The average floating rate note return for the quarter ending December 31, 1984, was 10.57 percent, and for conventional bonds offered by the same 40 companies the average yield was 9.58 percent. The American Express Leasing Corporation floating rate notes were yielding 17.7 percent, but because this rate is based on Italy's unusually high prime lending rate and was the only really high yield in this survey, its rate is not included in the computations shown in Table 4. The difference in yields between

TABLE 4

RATES ON VARIOUS DEBT INSTRUMENTS
(Money Amounts in Billions of Dollars and Returns and Ranges in Percentages)

Average Floating Rate Note Return	•	•	•		•	•	•	•	10.57
Average Conventional Bond Return	•	•	•	•	•	•	•	•	9.58
Floating Rate Note Return Range .									8.8 - 12.1
Conventional Bond Return Range .	•	•	•	•	•	•	•	•	4.3 - 17.7
Floating Rate Notes Outstanding									
(in dollars)	-	•				•		•	11.0
Other Long Term Debt Outstanding									
(in dollars)								•	90.8

conventional and floating rate notes at the end of December 1984 was 0.99 percent and shows that investors, at that time, would have a better earnings advantage by investing in floating rate notes. The range of returns on floating rate notes as of December 31, 1984, was from 8.8 percent to 12.1 percent. By comparison, the range of returns on conventional bonds was 4.3

percent by American Express Leasing Corporation to 17.7 percent by Banque Nationale de Paris. If the lowest rate, which is offered by American Express Leasing Corporation, were deleted from the survey the lowest rate for conventional bonds outstanding would be 4.45 percent (by Beneficial Corporation). Nine of the forty companies in this survey had conventional bonds outstanding which yielded interest rates between 4 and 5 percent. Eleven of the forty companies surveyed had bonds outstanding which yielded between 14 and 18 percent. The probable reason for such a wide range in returns is the fact that the 4.3 percent bonds were introduced in 1964 when interest rates were very low, and the 17.7 percent return bonds were offered in 1981 when interest rates were very high.

In December 1984, 10.82 percent of total long term debt outstanding for the forty companies surveyed was in the form of floating rate notes. All ninety-three companies' notes were included in this calculation. Of the \$101.8 billion worth of long term debt outstanding, \$11 billion worth was in the form of floating rate notes and \$90.8 billion worth was made up of other long term debt. The average calendar year of introduction is 1980, and the average calendar year of maturity is 1993. Therefore, the average floating rate note included in this survey is outstanding for a period of approximately thirteen years.

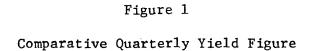
A description of each floating rate note was presented in the preceding section. In the section is an analysis of how average floating rate note returns in this forty company study have compared to conventional notes and Corporate Aa bonds from 1979 through 1984.

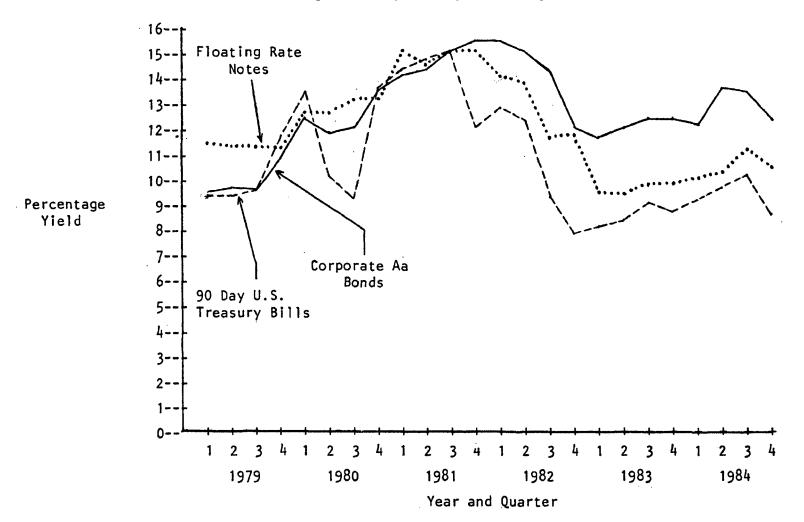
Performance of Floating Rate Notes from January 1979 through December 1984

Interest yield data by quarter for each note in this study for the years 1979 through 1984 are shown in Appendix Table 6. Some figures presented were given, but the majority were calculated using U.S. Treasury bill, Eurodollar, London Interbank Offered Rate, and prime lending rates provided by the Federal Reserve Bulletin. Figures are only presented for sixty-nine of the ninety-three notes available because information was insufficient for calculations to be made on fourteen of the floating rate notes. Even though the American Express Leasing Corporation note is included in Appendix Table 6, it is excluded from calculations. All quarterly yields on all notes are not presented because some notes were not introduced until after 1979.

From the calculations of yields shown in the Appendix (Table 6), average quarterly floating rate note yields (excluding the American Express Leasing Corporation's floating rate note) were calculated. These average yields, along with the average quarterly yields on both U.S. Treasury bills and Corporate Aa bonds are shown in Appendix Table 7.

A graphical presentation of the calculations shown in Table 7 (see Appendix) is presented in Figure 1. In 1979 it is interesting to note that rates on floating rate notes were, on average, over one percentage point higher than either Corporate





Aa bonds or U.S. Treasury bill rates. This probably resulted because people were hesitant to "try a new thing," and believed these notes to be a bit more risky than the other two forms of investment. The companies probably offered higher yields to draw investors to floating rate notes. The "put" feature abolished in 1978 may also have increased risk as perceived by investors. From late 1979 through late 1981, all average yields were in close proximity to each other (except for the second and third quarters of 1980). The difference in the second and third quarters of 1980 is probably due to lag time in the floating rate notes' adjustment to the sharp downturn in the U.S. Treasury bill From the third quarter of 1981 through the fourth quarter of 1984 rates adjusted more to what should be expected. States Treasury bills offered, on average, a consistently lower return than either floating rate notes or Corporate Aa bonds due mainly to the smaller risk factor. Floating rate notes, most of which are based on the U.S. Treasury bill rate plus a certain percentage, hovered slightly above the U.S. Treasury bill rate from the first quarter of 1981 through the fourth quarter of 1984. Furthermore, floating rate notes are more risky than U.S. Treasury bills. By comparison, the return on Corporate Aa notes offer a fixed rate of return and are more risky than either floating rate notes or U.S. Treasury bills. Corporate Aa bonds, being more risky, must yield a higher rate to draw additional Therefore, its rate being consistently higher investors. (Figure 1) than the floating rate note or U.S. Treasury bill

rates from late 1981 through late 1984 appears to be quite unsurprising.

From quarter one through quarter three of 1984, the yield on the floating rate notes surveyed increased. But the average ninety day U.S. Treasury bill yield increased at a more accelerated rate. The "narrowing of the gap" may have resulted from the decrease in the London Interbank Offered Rate in quarters one through three of 1984.

CONCLUSION

Little research has been done on the performance of floating rate notes compared to conventional bonds. It is not apparent that a study of floating rate note characteristics has been accomplished. This report presented a brief history of floating rate notes, a description of ninety-three floating rate notes offered by forty companies, and an analysis of how floating rate notes yields have compared to conventional bond yields. Floating rate notes originated in Europe and first appeared in the United States in 1974 when Citicorp sold \$650 million worth of its fifteen year notes. Floating rate notes provide advantages to both the issuer and purchaser. They tend to stabilize the price or value of the "contract" between investor and borrower. Most floating rate notes are based on the U.S. Treasury bill rate and are slightly more risky than U.S Treasury bills.

Floating rate notes serve to intermediate savings deposits because they eliminate the commercial banks' role of middleman between investors and borrowers. London Interbank Offered Rate based floating rate notes became more popular in the United States in 1983 and 1984 because it reflected both changes in interest rates and the market's sentiment about business conditions and credit quality.

The semi-annual adjustment period was most popular among those companies surveyed. Most companies base return rates on the U.S. Treasury bill rate. Of the companies surveyed, the average floating rate note (as of December 31, 1984) yielded 10.57 percent and the average fixed rate bond yielded 9.58 percent. This difference in yield between conventional bonds and floating rate notes shows that investors, on average, would have a better earnings advantage by investing in floating rate notes.

Since October 1981 floating rate notes, on average, have yielded a return between that of ninety-day U.S. Treasury bills and Corporate Aa bonds. This was to be expected, based on the uncertainty differences among the three types of investments.

The use of floating rate notes by investors and bankers is likely to continue in the future. Floating rate notes are becoming more popular in both Europe and the United States., Companies whose revenues are more interest sensitive than its costs may find that floating rate securities provide a valuable earnings hedge. Other companies may find that the addition of a small amount of floating rate securities in their capital structures is beneficial and provides a useful compromise between issuing short term debt and issuing long term, fixed rate debt, especially in today's less predictive market.

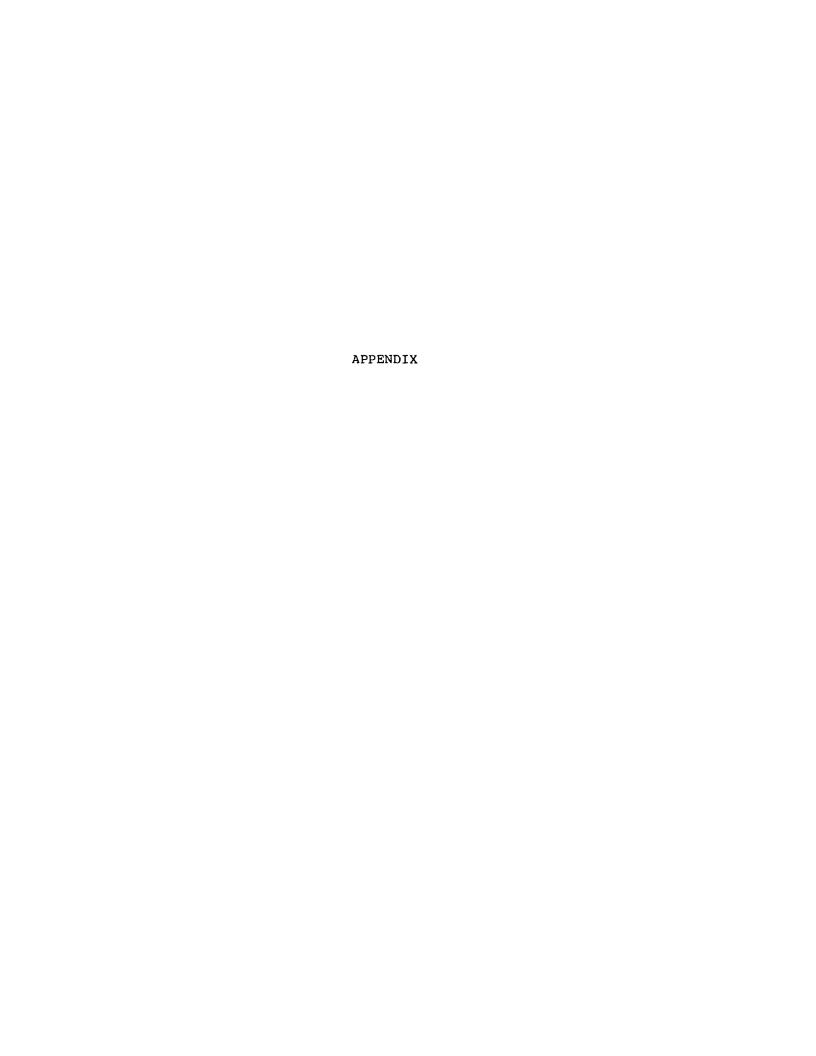


TABLE 5 COMPANY FLOATING RATE NOTE AND CONVENTIONAL BOND DATA

Company Name	Introduction Date	Current FRN % Yield	Average Other % Yield	Other % Yield Range	FRN Period of Adjustment	FRN Rating	1983 Premium in Dollars	1982 Premium in Dollars	Maturity Year	FRNs Outstanding in Millions of Dollars	FRN to Conventional Bond Ratio	Floating Rate Note Yield Based On
American Express	10/81	17.0	9.37	4.3- 15.25	Q				1985	31	.02:1	Prime rate for Italian Lira
Beneficial Corp.	6/79	11.0		4.45- 13.5	SA	А3	98.25- 93.25		1987	200	.06:1	0.5% above 6 month U.S. Treasury bill rate
First Bank System	5/79	11.1	10.13	6.3- 13.13	SA	Aa1	98.5~ 91	97 - 90.7	1989	125	.29:1	0.6% above 6 month U.S. Treasury bill rate
First Chicago Corp		9.6	7.75	7.75	Q		• • •	• • •	1994	100	. 48:1	0.25% above 3 month Eurodollar rate
Interfirst Corp.	5/79		9.58	7.8- 12.8	SA	Aa1	99.5- 99.25	2	1987	100	. 24:1	

					Citicorp	Company Name
2/82	2/82	4/80	2/79	7/78	6/74	Introduction Date
9.7	9.7	11.6	11.6	11.5	11.3	Current FRN % Yield
=	=	• =	=	=	11.9	Average Other % Yield
=	=	=	=	=	5.8- 16.5	Other % Yield Range
0	0	3	SA	SA	AS	FRN Period of Adjustment
Aa 1	Aa1	Aal	Aa 1	Aa 1	Aa 1	FRN Rating
99.75	100	•	93.3- 84	96.8- 86.2	100.5- 98	1983 Premium in Dollars
•	•	99.5- 98.5	94.2- 86.75	98.6- 88.25	102.3- 97.5	1982 Premium in Dollars
1987	1985	2010	2004	1998	1989	Maturity Year
						FRNs Outstanding in Millions of Dollars
						FRN to Conventional Bond Ratio
1.0% above 3 month U.S. Treasury bill rate	1.0% above 3 month U.S. Treasury bill rate	102.5% x average of two consec. 6 mo. T-bill	1.05% above 6 month U.S. Treasury bill rate	1.0% above 6 month U.S. Treasury bill rate	1.0% above 3 month U.S. Treasury bill rate	Floating Rate Note Yield Based On
	1	1	1	I	82	·

Bank of Nova Scotia					Citicorp (contin-	Company Name
5/79	1983	1983	1983	2/82	3/82	Introduction Date
11.9	10.8	11.2	11.2	11.2	9.7	Current FRN % Yield
8.9	=	=	=	·' =	11.9	Average Other % Yield
7.0-	=	=	=	=	5.8- 16.5	Other % Yield Range
SA	SA	SA	SA	P	O	FRN Period of Adjustment
•	Aal	Aa 1	Aa1	Aa 1	Aal	FRN Rating
•	•	95.75	•	•	102- 97.25	1983 Premium in Dollars
•			•	•	:	1982 Premium in Dollars
1989	1998	1998	1995	1992	1989	Maturity Year
	1,370					FRNs Outstanding in Millions of Dollars
	.81:1					FRN to Conventional Bond Ratio
0.625% below Canadian prime lending rate	0.3% above 6 month U.S. Treasury bill rate	0.65% above 6 month U.S. Treasury bill rate	0.7% above 6 month U.S. Treasury bill rate	1.0% above 3 month U.S. Treasury bill rate	1.0% above 3 month U.S. Treasury bill rate	Floating Rate Note Yield Based On

						· ·
			Wells Fargo		Bank of Nova Scotia (continued)	Company Name
2/84	1/83	5/82	5/82	6/81	•	Introduction Date
& . &	9.5	9.4	9.5	10.2	10.1	Current FRN % Yield
=	=	=	11.26	= .	8.98	Average Other % Yield
	=	=	7.8- 14.5	=	7.0- 15.5	Other % Yield Range
0	P	P	P	Þ	A	FRN Period of Adjustment
<u>></u>	A1	A1	<u>A</u>	•	:	FRN Rating
•		•				1983 Premium in Dollars
•	•	•.	•		·	1982 Premium in Dollars
1996	1992	1992	1992	1994	1993	Maturity Year
400		·		375		FRNs Outstanding in Millions of Dollars
. 48: 1				1.2:1		FRN to Conventional Bond Ratio
3 month London Eurodollar rate	0.7% above 3 month U.S. Treasury bill rate	0.625% above 3 month U.S. Treasury bill rate	0.75% above 3 month U.S. Treasury bill rate	0.25% above per annum mean of 6 month Eurodollar rate	0.125% above 6 month Eurodollar rate	Floating Rate Note Yield Based On

		Kansallis Osake Pankki			Chase Manhattan	Company Name
2/84	5/82	5/82	1978	5/79	8/74	Introduction Date
11.7	12.1	12.1	•	= =	11.5	Current FRN % Yield
•	•		=	=	8.8	Average Other % Yield
•		•	=	=	4.9- 15.5	Other % Yield Range
SA	SA	SA	SA	SA	SA	FRN Period of Adjustment
•	:			Aa1	Aal	FRN Rating
**************************************		100.4-	•	95.6-	100.5-	1983 Premium in Dollars
•		100- 98.8	•	91.3- 80.5	100.8- 99.0	1982 Premium in Dollars
1992	1989	1992	1993	2009	1999	Maturity Year
175	·		483			FRNs Outstanding in Millions of Dollars
100:1			1.5:1	,	-	FRN to Conventional Bond Ratio
0.125% above 6 month Eurodollar rate	0.25% above 6 month Eurodollar rate	0.25% above 6 month Eurodollar rate		0.6% above 6 month U.S. Treasury bill rate	1.0% above 6 month U.S. ധ്ര	Floating Rate Note Yield Based On

					Manufacturers Hanover Corp.	Company Name
1979	3/83	3/83	3/83	3/83	12/82	Introduction Date
9.1	9.3	9.2	9.4	9.4	11.5	Current FRN % Yield
=	=	=	=	=	12.0	Average Other % Yield
=	=	=	=	=	8.2- 15.2	Other % Yield Range
<u></u>	Ę,	¥,	¥,	¥,	SA	FRN Period of Adjustment
Aa2	Aa2	Aa2	Aa2	Aa2	Aa2	FRN Rating
•	•	•	•		•	1983 Premium in Dollars
•	•	•	•		97.5- 90	1982 Premium in Dollars
1994	1990	1992	1992	1992	1987	Maturity Year
900						FRNs Outstanding in Millions of Dollars
.65:1						FRN to Conventional Bond Ratio
0.125% above 3 month Eurodollar rate	0.625% above 3 month U.S. Treasury bill rate	0.5% above 3 month U.S. Treasury bill rate	0.75% above 3 month U.S. Treasury bill rate	0.75% above 3 month U.S. Treasury bill rate	0.5% above 6 month U.S. Treasury bill rate	Floating Rate Note Yield Based On

					. * *	
		Merrill Lynch &Co			John Deere Corp.	Company Name
4/83	4/83	4/83	3/84	2/83	4/82	Introduction Date
9.3	9.3	9.3	9.5	9.5	10.2	Current FRN % Yield
=	=	10.22	=	=	6.5	Average Other % Yield
=	=	8.8- 11.6	=	=	4.8- 9.35	Other % Yield Range
0	0	ò	0	0	0	FRN Period of Adjustment
Aa3	Aa3	Aa3	A2	A2	A2	FRN Rating
•	•				100	1983 Premium in Dollars
•	·	•				.1982 Premium in Dollars
•			1993	1986	1985	Maturity Year
200	200	200	150	100	100	FRNs Outstanding in Millions of Dollars
.69:1	-	·	1.1:1		,	FRN to Conventional Bond Ratio
0.625% above 3 month U.S. Treasury bill rate	0.6% above 3 month U.S. Treasury bill rate	0.6% above 3 month U.S. Treasury bill rate	0.75% above 6 month U.S. Eurodollar rate	0.825% above 3 month U.S. Treasury bill	1.5% above 3 month U.S. Treasury bill rate	Floating Rate Note Yield Based On
					33	

Company Name	Introduction Date	Current FRN % Yield	Average Other % Yield	Other % Yield Range	FRN Period of Adjustment		1983 Premium in Dollars	1982 Premium in Dollars	Maturity Year	FRNs Outstanding in Millions of Dollars	FRN to Conventional Bond Ratio	Floating Rate Note Yield Based On	-
First Security Co	9/74	11.8	9.0	8.5- 9.5	SA	A1	101- 98.8	102.5- 98	1999			1.25% above 6 month U.S. Treasury bill rate	34
Fleet Fin. Group	1/84	9.0	12.9	9.25- 12.25		А3			1996			0.125% above 6 month Eurodollar rate	
J. P. Morgan & Co	1/84	9.1	8.5	4.75- 13.25		Aa1			1997			0.25% above 3 month Eurodollar rate	
Republic N.Y. Cor	3/84	8.8	12.7	8.75- 16.0	Q	A1			2004		• • •	3 month Eurodollar rate	
Mellon National	9/74	9.7		5.4- 13.5	Q	•	101- 99	102- 98	1989	22		1.0% above 3 month U.S. Treasury bill rate	
	6/79	11.0			SA		97 - 91	93- 86	1989	123		0.5% above 6 month U.S. Treasury bill rate	

First Bank System	First City Ban TX	Amsouth Bancorp	Svenska Handels	Nat. Westminister	Bank Nat. d'Paris	Company Name
5/79	7/82	10/74	•	5/78	6/81	Introduction Date
10.9	10.3	11.5	•	12.1	10.6	Current FRN % Yield
10.1	10.5	•	9.1	9.5	12.9	Average Other % Yield
6.3-	7.8- 13.3	•	6.3- 14.13	8.0- 12.5	6.75- 17.7	Other % Yield Range
SA	P	SA	•	SA	SA	FRN Period of Adjustment
Aa 1	•	•	•	Aaa		FRN Rating
98-	•	•	101- 99.2		•	1983 Premium in Dollars
97-	•					1982 Premium in Dollars
1989	1986	1999	1987	1990	1996	Maturity Year
•	•	30	150	350	734	FRNs Outstanding in Millions of Dollars
•		.8:1		.29:1	. 39:1	FRN to Conventional Bond Ratio
0.6% above 3 month U.S. Treasury bill rate	0.625% above 3 month U.S. Treasury bill rate	1.0% above 6 month U.S. Treasury bill rate		0.25% above 3 month Eurodollar rate	0.125% above 6 month. Eurodollar rate	Floating Rate Note Yield Based On

				;		
Chemical N.Y. Cor	Security N.Y. St.	Republic Bank Cor	Norwest Corp.	Mercantile Texas	(rying Bank Corp.	Company Name
4/79	12/74	5/79	5/79	3/79	5/79	Introduction Date
11.5	11.5	11.5	11,0	11.7	11.2	Current FRN % Yield
6.8		10,3	9.6	11.5	8.2	Average Other % Yield
4.0	:	9.4- 11.3	5.]-	11.5	5.8- 12.4	Other % Yield Range
ŞA	SA	SA	SA	ŞA	SA	FRN Period of Adjustment
Aa2		Aa3	Aa1	•	Aa3	FRN Rating
97.75- 89.13	•	98 - 88.8	99.75- 94.4	99 - 93	95.75- 88.83	1983 Premium in Dollars
93.2-	•	93 - 84.3	96.5- 92:1	92.8- 87.5	94- 84.8	1982 Premium in Dollars
2004	1994	2004	1989	1999	2004	Maturity Year
100	-	75	65	35	90	FRNs Outstanding in Millions of Dollars
.11:1	. 01 : 1	.33:1	.06:1	.25:1	.35:1	FRN to Conventional Bond Ratio
100 .11:1 1.0% above 6 month Treas-	1.0% above 3 month Treas- ury bill rate	1.0% aboye 6 month Treas- ury bill rate	0.5% above 6 month Treas- ury bill rate	1.2% above 6 month Treas- ury bill rate	1.0% above 6 month Treas- ury bill rate	Floating Rate Note Yield Based On

Company Name	Introduction Date	Current FRN % Yield	Average Other % Yield	Other % Yield Range	FRN Period of Adjustment	FRN Rating	1983 Premium in Dollars	1982 Premium in Dollars	Maturity Year	FRNs Outstanding in Millions of Dollars	FRN to Conventional Bond Ratio	Floating Rate Note Yield Based On
General Motors	11/80	12.0	9.22	4.5- 14.4	А		104.8- 98.83	99.8- 88.5	1990	250	.01:1	7.2% above 10 year Treas- ury bill
Ford Motor Credit	6/82	9.2	9.0	4.5- 16.3	SA	Baa2	• • • •			300	.07:1	0.5% above 6 month Eurodollar rate
Crocker National	8/74	10.2	7.7	5.8- 8.75	SA	A1	99.4- 96.75	98.8- 96.6	1994	5	.02:1	1.0% above 3 month Treas- ury bill or 10% (least)
First Security Co	9/74	11.8	9.0	8.5 - 9.5	SA		101 - 98.75	103 - 98	1999	24	.16:1	1.25% above 6 month U.S. Treasury bill rate
Girard Corporat.	5/79	11.2	7.2	5.4- 9.0	SA	A2			1987	50	1.1:1	0.65% above 6 month U.S. Treasury bill rate
Imperial Bancorp	7/79	11.5	9.0	9.0	SA		66.5- 66	70- 65	1999	17		1.0% above 6 month U.S. Treasury bill rate

Company Name	Introduction Date .	Current FRN % Yield	Average Other % Yield	Other % Yield Range	FRN Period of Adjustment	FRN Rating	1983 Premium in Dollars	1982 Premium in Dollars	Maturity Year	FRNs Outstanding in Millions of Dollars	FRN to Conventional Bond Ratio	Floating Rate Note Yield Based On
Bankers Trust N.Y.	• •		6.78	4.5 - 8.7		•			1994	198	.82:1	
Creditanstalt Bankverein	1979	12.1	8.82	7.3- 15.5	SA	• •	• • •		1991			0.25% above 6 month Eurodollar rate
	1983	12.0	11	1)	SA	• •			1994	165	.01:1	0.125% above 6 month Eurodollar rate
Continental Illinois Corporation	5/79	11.0	11.83	8.5- 15.75	SA	А3	98- 91	97 - 89	1987			0.5% above 6 month U.S. Treasury bill rate
	9/74	10.7	11	11	Q	А3	100 - 98	10 1- 96	1989			1.0% above 3 month U.S. Treasury bill rate
	6/82	9.6	11	8 8		Baa1			1994	419	.57:1	0.25% above London Eurodollar rate

TABLE 5.-Continued

Company Name	Introduction Date	Current FRN % Yield	Average Other % Yield	Other % Yield Range	FRN Period of Adjustment	FRN Rating	1983 Premium in Dollars	1982 Premium in Dollars	Maturity Year	FRNs Outstanding in Millions of Dollars	FRN to Conventional Bond Ratio	Floating Rate Note Yield Based On
National Bank of Canada	3/81	11.4	10.7	7.5 - 16.5	Α				1988			0.25% above average annual Eurodollar Rate
	12/79	10.8	11	11	SA				1989	90	.46:1	0.5% above 3 month U.S. Treasury bill rate

SOURCE: Moody's Bank and Financial Manual, volumes one and two, 1984.

NOTE: Current FRN percentage yield and average other percentage yield figures were not given by the above mentioned source. These figures were calculated using information in given by the above source and other sources previously mentioned in the text. Furthermore, there were 24 additional floating rate notes outstanding but not included in table 2 because information was not available.

TABLE 6

COMPARATIVE QUARTERLY YIELD FIGURES FOR SAMPLED NOTES FROM JANUARY 1979 THROUGH DECEMBER 1984

										Ye	ar and	l Quart	er				
Yi	eld Based	0n				1	979				1	980			1	981	
			1		2	2	3		4	1	2	3	4	1	2	3	4
American Exp	ress Leas	ing Corp.		•		•		•						19.98	19.98	19.98	19.98
Beneficial C	orporation	n					11.1	1	11.1	12.2	12.2	11.9	11.9	15.0	15.0	14.0	14.0
First Bank S	ystem inc	porporated	.				11.2	2	11.2	11.9	11.9	12.0	12.0	15.1	15.1	14.1	14.1
First Chicag	o Corpora	tion	.														
Mellon Natio	nal									12.7	12.7	12.4	12.4	15.5	15.5	14.5	14.5
tt u							11.1	1	11.1	12.2	12.2	11.9	11.9	15.0	15.0	14.0	14.0
Manufacturer	s Hanover	Corporation	.							<i>.</i>						• • •	
11	п	11						•									
11	11	11								<i>.</i>							
11	11	11	.													• • • •	
11	11	11	. .]		•		1			
11	11	11	12.	1	12.	. 1	12.1	1	12.1	14.1			14.1	l .	16.9	17.1	14.4
First City B	ancorp of	Texas	} .	•		•		•			• • •			1		• • •	

TABLE 6-Continued

							Ϋ́є	ar and	i Quart	er				
C	Company Nam	e		. 1	982		·	1	983			1	984	
		,	1	2	3	Łį	1	2	3	4	1	2	3	4
American Exp	ress Leasi	ng Corp.	21.1	20.6	19.4	18.9	19.1	17.9	17.5	17.5	17.5	17.0	16.8	17.7
Beneficial C	orporation		13.0	13.0	9.0	9.0	9.0	9.0	9.5	9.5	9.8	9.8	11.0	11.0
First Bank S	ystem Inco	rporated	13.1	13.1	9.1	9.1	9.1	9.1	9.6	9.6	9.9	9.9	11.1	11.1
First Chicag	o Corporat	ion			10.6	10.6	10.6	10.6	10.3	10.1	10.3	11.6	12.1	9.6
Mellon Natio	nal		13.5	13.5	9.5	9.5	10.0	10.0	10.0	10.0	10.2	10.8	11.3	9.7
H H			13.0	13.0	9.0	9.0	9.0	9.0	9.5	9.5	9.8	9.8	11.0	11.0
Manufacturer	s Hanover	Corporation					9.0	9.0	9.5	9.5	10.3	10.3	11.5	11.5
11	н	11						9.4	9.4	9.4	9.7	10.3	10.8	9.4
п	11	11						9.4	9.4	9.4	9.9	10.5	11.0	9.2
11	11	11				• • •		9.1	9.6	9.6	9.9	10.5	11.0	9.2
H	11	11						9.2	9.7	9.7	9.7	10.3	10.8	9.0
()	н	11	15.6	14.5	11.7	10.5	10.5	9.5	9.8	10.3	9.8	10.4	10.9	9.1
First City B	Sancorp of	Texas	.		11.4	10.2	10.0	9.2.	9.7	9.7	9.7	10.3	10.8	9.0

TABLE 6-Continued

					Ye	ear and	l Quart	er				
Company Name		1	979			19	080			19	81	
	1	2	3	4	1	2	3	4	1	2	3	· 4
Citicorp	11.2	11.2	11.4	11.4	12.7	12.7	12.4	12.4	15.5	15.5	14.5	14.5
H	10.4	10.4	10.6	10.6	12.7	12.7	12.4	12.4	15.5	15.5	14.5	14.5
11	11.6				12.8					15.6		
H ₁	1											
11	1											
11	 											
11												
н												
11										• • •		• •
11	' ' '	• • •	• • •	• • •				• • •		• • •	• • •	• •
11	' ' '	• • •	• • •	• • •	• • •					• • •	• • •	• •
	• • •	• • •						*	(.			• •
General Motors Acceptance Corp.		• • •	• • •	• • •	• • •	• • •	• • •	• • •	13.45	13.45	13.45	13.4
Merrill Lynch & Company, Inc.	• • •	• • •	• • •	• • •	• • •	• • •		• • •		• • •	• • •	• •
H H H H						• • •						• •
11 11 11		• • •		• • •					• • •			

·			,		Yea	ar and	d Quar	ter				
Company Name		1	982	······································			1983			•	1984	
	1	2	3	4	1	2	3	4	1	2	3	4
Citicorp	13.5	13.5	9.5	.9.5	9.5	9.5	10.0	10.0	10.2	10.2	11.3	11.3
II .	13.5	13.5	9.5	9.5	9.5	9.5	10.0	10.0	10.3	10.3	11.5	11.5
H	13.6	13.6	9.6	9.6	9.6	9.6	10.1	10.1	10.4	10.4	11.6	11.6
II.	14.7	14.7	10.7	10.7	10.7	10.7	11.1	11.1	10.4	10.4	11.6	11.6
H		13.4	10.3	8.9.	9.1	9.3	10.0	9.8	10.2	10.8	11.3	9.7
11		13.4	10.3	8.9	9.1	9.3	10.0	9.8	10.2	10.8	11.3	9.7
tt.		13.4	10.3	8.9	9.1	9.3	10.0	9.8	10.2	10.8	11.3	9.7
n .		13.3	10.2	8.8	9.0	9.2	9.9	9.7	10.1	10.7	11.2	9.6
11					9.0	9.0	9.9	9.9	10.0	10.0	11.2	11.2
п					9.0	9.0	9.9	9.9	10.0	10.0	11.2	11.2
11					8.6		9.5	9.5	9.6	9.6	10.8	10.8
General Motors Acceptance Corp.	13.4	13.4	13.4	13.4	11.6		12.5	12.5	12.0	12.0	12.0	12.0
Merrill Lynch & Company, Inc.				• •					9.8	10.4	10.9	9.3
11 11 11									9.8	10.4	10.9	9.3
11 11 11 11						, - •			9.8	10.4	10.5	9.3 _W

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TABLE 6-Continued

					Ye	ar and	l Quart	er					
Company Name		19	79			19	80			19	981		-
	1	2	3	4	1	2	3	4	1	2	3	4	_
John Deere Credit Company													-
11 11 11 11													
11 11 11 11								• •		• • •		• • • •	
Ford Motor Credit Company													
Bank of Nova Scotia	11.3	11.3	11.3	11.3	12.5	12.5	12.5	12.5	16.6	16.6	16.6	16.6	
n n n								• •				16.4	
H H												16.6	
Creditanstalt Bankverein	12.2	12.2	12.2	12.2	14.3	14.3	14.3	14.3	16.9	16.9	16.5	16.5	
rocker National	10.0	10.0	10.0	10.0	10.0		10.0		10.0	10.0	10.0	10.0	
Banque Nationale de Paris					i								
First Security Corporation	11.9				13.2				[
Girard Corporation					13.8				14.8				
Imperial Bancorp	1				12.9				j				
Irving Bank Corporation	1				12.9				Ì				

					Ye	ar and	d Quart	er					
Company Name		15	982	1		1	1983			15	84		-
	1	2	3	4	1	2	3	4	1	2	3	4	-
John Deere Credit Company				9.4	9.6	9.8	10.5	10.3	10.7	11.3	11.8	10.2	
11 11 11						9.1	9.8	9.6	10.0	10.6	11.1	9.5	
H H H H							• • •			10.6	11.1	9.5	
Ford Motor Credit Company		•.••	15.1	12.1	9.7	9.8	10.8	10.3	10.5	10.5	12.3	9.2	
Bank of Nova Scotia	14.5	14.5	14.5	14.5	9.9	9.9	9.9	9.9	9.4	9.4	11.9	11.9	
m m	16.0	15.0	14.7	11.7	9.3	9.4	10.4	9.9	10.1	10.1	10.1	10.1	
H H	16.2	15.2	14.9	11.9	9.5	9.6	10.6	10.1	10.2	10.2	10.2	10.2	
Creditanstalt Bankverein	15.6	15.6	13.4	13.4	9.6	9.6	10.1	10.1	10.3	10.3	12.1	12.1	
11					9.6	9.6	10.1	10.1	10.2	10.2	12.0	12.0	
Crocker National	10.0	10.0	9.5	9.5	9.5	9.5	10.0	10.0	10.2	10.2	11.3	10.2	
Banque Nationale de Paris	15.4	15.4	13.2	13.2	9.4	9.4	9.9	9.9	10.1	10.1	10.6	10.6	
First Security Corporation	14.0	14.0	10.0	10.0	10.0	10.0	10.5	10.5	10.6	10.6	11.8	11.8	
Girard Corporation	13.9	13.9	13.9	13.9	9.2	9.2	9.9	9.9	10.0	10.0	11.2	11.2	
Imperial Bancorp	14.5	14.5	9.7	9.7	9.7	9.7	10.2	10.2	10.3	10.3	11.5	11.5	
Irving Bank Corporation	13.4	13.4	9.7	9.7	9.7	9.7	10.2	10.2	10.0	10.0	11.2	11.2	

TABLE 6-Continued

					Ye	ar and	Quart	er				
Company Name		19	79			19	80			19	81	
	1	2	3	4	1	2	3	4	1	2	3	4
Kansallis Osake Pankki												• •
0 0												
0 0	1						• • .•					
Mercantile Texas Corporation	1		11.2	11.2	13.1	13.1	12.8	12.8	15.9	15.9	14.9	14.9
lational Bank of Canada										16.6	16.6	16.6
H H	1				11.5	11.5	12.2	12.2	11.9	11.9	15.0	15.0
National Westminister Bank	12.2	12.2	12.2	12.2	14.3	14.3	14.3	14.3	16.9	16.9	16.5	16.5
Norwest Corporation	1		10.6	10.6	11.5	11.5	12.2	12.2	11.9	11.9	15.0	15.0
Republic Bank Corporation	1		11.1	11.1	12.0	12.0	12.7	12.7	12.4	12.4	15.5	15.5
Security N.Y. State Corporation	11.0	11.0	11.4	11.4	12.1	12.1	12.8	12.8	12.5	12.5	15.6	15.6
Chemical New York Corporation	1		11.1	11.1	12.0	12.0	12.7	12.7	12.4	12.4	15.5	15.5
Amsouth Bank Corporation	10.2	10.2	11.0	11.0	12.9	12.9	12.6	12.6	15.7	15.7	14.7	14.7
Continental Illinois Corporation			10.5	10.5	12.4	12.4	12.2	12.2	15.5	15.5	14.5	14.5
н н	11.0	11.2	11.4	11.7	12.0	12.3	12.8	12.6				
11 11 11	1											

TABLE 6-Continued

					Yea	er and	Quarte	er				
Company Name		1	982			19	983			19	984	
•	1	2	3	4	1	2	3	4	1	2	3	4
Kansallis Osake Pankki	14.5	14.5	14.5	14.5	9.9	9.9	9.9	9.9	10.3	10.3	12.1	12.1
n ' n H	14.5	14.5	14.5	14.5	9.9	9.9	9.9	9.9	10.7	10.7	12.3	9.3
n n n	1									10.1	11.9	11.7
Mercantile Texas Corporation	13.9	13.9	9.9	9.9	9.9	9.9	10.4	10.4	10.5	10.5	11.7	11.7
National Bank of Canada	14.5	14.5	14.5	14.5	9.9	9.9	9.9	9.9	11.4	11.4	11.4	11.4
11 11	14.0	14.0	13.0	13.0	9.0	9.0	9.5	9.5	9.7	9.7	10.8	10.8
National Westminister Bank	15.6	15.6	13.4	13.4	9.6	9.6	10.1	10.1	10.3	10.3	12.1	12.1
Norwest Corporation	14.0	14.0	13.0	13.0	9.2	9.2	9.5	9.5	9.8	9.8	11.0	11.0
Republic Bank Corporation	14.5	14.5	13.5	13.5	9.8	9.8	9.8	9.8	10.3	10.3	11.5	11.5
Security N.Y. State Corporation	14.6	14.6	13.6	13.6	9.7	9.7	9.9	9.9	10.3	10.3	11.5	11.5
Chemical New York Corporation	14.5	14.5	13.5	13.5	9.8	9.8	9.8	9.8	10.3	10.3	11.5	11.5
Amsouth Bank Corporation	13.7	13.7	9.7	9.7	9.7	9.7	10.2	10.2	10.3	10.3	11.5	11.5
Continental Illinois Corporation	13.2	13.2	9.2	9.2	9.2	9.2	10.0	10.0	10.1	10.1	11.3	11.3
Tr II II	14.6	14.2	13.6	12.2	9.7	9.7	9.8	9.9	10.3	10.8	11.5	10.9
н н н	1		13.4	13.4	9.6	9.6	10.1	10.1	10.3	10.3	12.1	12.1

					Ye	ear and	d Quart	ter				
Company Name		19	979			19	980			.19	81	
	1	2	3	4	1	2	3	4	1	2	3	4
irst Bank System,	11.1	11.1	11.1	11.1	12.2	12.0	11.9	12.9	15.0	14.5	14.2	14.0
irst Security Corporation	11.7	11.7	11.7	11.7	12.8	12.8	12.6	12.6	15.6	15.6	14.8	14.8
leet Financial Corporation												
. P. Morgan and Company										• • •		
epublic New York Corporation												
ells Fargo												
H H						• • •			• • •			
ti ti								• •				
11 0				• •								
hase Manhattan Corporation	11.3	11.3	11.7	11.7	12.7	12.7	12.4	12.4	15.5	15.5	14.5	14.5
11 11 11			11.0	11.0	12.3	12.3	12.1	12.1	15.1	15.1	14.1	14.1

TABLE 6-Continued

					Ye	ar and	Quart	er				
Yield Based On		1	982			1	983			1	984	
	1	2	3	4	. 1	2	3	4	1	2	3	. 4
First Bank System	13.3	13.3	9.3	9.3	9.3	9.3	10.1	10.1	9.8	9.8	10.9	10.9
First Security Corporation	13.9	13.9	9.9	9.9	9.9	9.9	10.7	10.7	10.6	10.6	11.8	11.8
Fleet Financial Corporation							:		10.4	12.0	12.1	9.0
J. P. Morgan and Company								• • •	10.6	12.2	12.3	9.1
Republic New York Corporation										11.2	12.0	8.8
Vells Fargo			9.5	9.5	9.5	9.5	10.3	10.3	10.0	10.6	11.1	9.5
n n			9.3	9.3	9.3	9.3	10.1	10.1	9.8	10.4	10.9	9.3
11					9.4	9.4	10.2	10.2	9.9	10.5	11.0	9.4
H H										11.2	12.0	8.8
Chase Manhattan Corporation	13.5	13.5	9.5	9.5	9.5	9.5	10.0	10.0	10.3	10.3	11.5	11.5
11 11	13.1	13.1	9.1	9.1	9.1	9.1	9.6	9.6	9.9	9.9	11.1	11.1

SOURCES: Moody's Bank and Financial Manual, 1984; Barrons National Business and Financial Weekly, December 31, 1984, pp. 82-95; Federal Reserve Bulletin, Board of Governors, Federal Reserve System, January 1979-February 1985; Survey of Current Business, U.S. Department of Commerce, January 1980.

NOTES: Yield criteria was not available for 24 of 93 notes. Most figures were calcualted.

TABLE 7

COMPARATIVE QUARTERLY YIELD FIGURES FOR FIGURE NUMBER ONE JANUARY 1979 THROUGH DECEMBER 1984

Three Month U.S. Treasury Bill 9.4 9.4 9.6 11.8 13.46 10.05 9.24 13.71 14.37 14.83 15.09 12.02						Ye	ar and	Quart	er				
Corporate Aa Bond 9.5 9.7 9.6 10.9 12.46 11.96 12.02 13.64 14.09 14.36 15.08 15.53 Three Month U.S. Treasury Bill 9.4 9.6 11.8 13.46 10.05 9.24 13.71 14.37 14.83 15.09 12.02	Yield Based On			1979			1	980			1	981	
Three Month U.S. Treasury Bill 9.4 9.4 9.6 11.8 13.46 10.05 9.24 13.71 14.37 14.83 15.09 12.02		1	2	3	4	1	2	3	. 4	1	2	3	4
	Corporate Aa Bond	9.5	9.7	9.6	10.9	12.46	11.96	12.02	13.64	14.09	14.36	15.08	15.53
Average for Floating Rate Notes 11.4 11.3 11.3 12.65 12.65 13.14 13.10 15.08 14.77 15.05 15.06	Three Month U.S. Treasury Bill	9.4	9.4	9.6	11.8	13.46	10.05	9.24	13.71	14.37	14.83	15.09	12.02
	Average for Floating Rate Notes	11.4	11.3	11.3	11.3	12.65	12.65	13.14	13.10	15.08	14.77	15.05	15.06

TABLE 7-Continued

					Ye	ar and	Quart	er				
Yield Based On		1	982			1	983			1	984	
. ,	1	2	3	4	1	2	3	4	1	2	3	4,
Corporate Aa Bond	15.56	15.12	14.31	12.07	11.86	12.05	12.58	12.57	12.30	13.81	13.62	12.50
Three Month U.S. Treasury Bill	12.89	12.42	9.32	7.90	8.05	8.40	9.14	8.76	9.20	9.80	10.30	8.70
Average for Floating Rate Notes	14.10	13.98	11.73	11.77	9.60	9.58	9.96	9.93	10.14	10.44	11.36	10.57

SOURCES: Moody's Bank and Financial Manual, vols. one and two, 1984; Barrons National Business and Financial Weekly, December 31, 1984, pp. 82-95; Federal Reserve Bulletin, Board of Governors, Federal Reserve System, January 1979-February 1985; Survey of Current Business, U.S. Department of Commerce, Bureau of Economic Analysis, January 1980; The Economist, January 4, 1985, p. 122.

NOTES: Only 69 of 93 sampled notes' yields were used to calcualted average for floating rate notes category in table 7. Average quarterly figures for floating rate notes were calculated using quarterly figures given in table 6.

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