

# International “Middle-Market” Borrowing

Two of the most important developments in the international capital markets since 1980 have been the onset of the less developed country (LDC) debt problem and the surge in international securities issuance. Both of these suggest a diminished role for commercial bank lending. The debt problem has reduced the perceived creditworthiness of LDCs, making loans to some of these countries unattractive at any interest rate. On the other hand, the growing credit needs of industrialized countries have principally been met not by banks but by the international securities markets, to which the most creditworthy borrowers have consistently had good access.

This article assesses supply and demand shifts in lending to a third group of countries, the medium-risk borrowers, for whom the impacts of the debt problem and securities market growth are less clear. These borrowers constitute a “middle market” for international lending.

Our analysis suggests that the international middle market passed through two distinct stages in recent years. First, after the debt problem arose in late 1982, banks reduced the supply of loans to the middle market. Hence the quantity of bank credit fell and spreads increased. While the least risky middle-market borrowers used fixed- and floating-rate bond issues to replace syndicated credits, this did not fully offset declining bank lending to the middle market as a whole.

By 1984, improved opportunities for all middle-market borrowers to raise funds in the securities markets reduced their need for bank loans, with an accompanying fall in spreads. The increase in the supply of funds through bond issuance came primarily from non-bank investors and was not unique to the middle market; medium-risk borrowers benefitted from the same forces that allowed top-tier borrowers to make rapid increases in bond market borrowing. Even if we assume

that all floating-rate notes issued by middle-market borrowers were purchased by banks, the total demand for bank funding of middle-market countries fell after 1983. This occurred despite an increase in overall (bank and nonbank) financing of middle-market countries.

The following section defines the international middle market and examines the composition of borrowing by industrialized countries, middle-market countries, and LDCs. We then evaluate changes in middle-market loan and floating-rate note terms, as well as the issuance of fixed-rate bonds. The loan and bond data, considered together, lead to conclusions about supply and demand shifts in the middle market.

## **Changing patterns of international borrowing**

International borrowers can be divided into three groups according to country of residence: industrialized nations, middle-market countries, and non-middle-market LDCs. The middle market consists of countries that have had less access to international securities markets than industrial country borrowers, but offer substantially less credit risk than the poorer LDCs or those countries that have rescheduled debt.<sup>1</sup>

To make these distinctions operational, we begin by applying a common definition of the top tier of international borrowers and then rely on country risk ratings to distinguish between middle-market and LDC borrowers. Of course, some degree of arbitrariness cannot

<sup>1</sup>A pure country risk criterion is not the only possible way to distinguish borrower groups. A more extensive credit risk measure would also be plausible. In that case, medium-risk firms in the most creditworthy countries could also be viewed as part of the middle market. However, the available data do not readily distinguish between corporate and noncorporate borrowers, so that standard would be difficult to apply empirically.

be avoided. Specifically, the industrial country borrowers in the top tier are the G-10 members, including Switzerland. Their long histories of participation in the international credit markets, high per capita incomes, extensive financial resources, and well-developed framework for cooperation in economic matters suggest a low degree of country risk. The middle market includes those countries not in the top tier that meet two principal criteria: a) no reschedulings of debt payments in the decade before 1983, and b) 1983 *Institutional Investor* country risk ratings at least as high as any country that rescheduled or postponed payments.<sup>2</sup> The year 1983 serves as a reference point because we want to see how medium-risk borrowers fared after the debt problem arose. Those countries that rescheduled or postponed payments in 1982 and early 1983 were no longer medium-risk borrowers. Also, the analysis of market lending terms to follow does not apply to involuntary loans made under rescheduling agreements.

Using this definition, the middle market consists of 24 countries: Algeria, Australia, Austria, the Bahamas, Bahrain, Colombia, Denmark, Finland, Greece, Hong Kong, Indonesia, Ireland, Kuwait, Malaysia, Norway, Portugal, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Taiwan, Thailand, and the United Arab Emirates. Some of these nations have had difficulty meeting debt payments since 1983, demonstrating that there are real risks in lending to the middle market.

We can use OECD data on the composition of new international financing arranged by country borrowers to examine the funding behavior of the three groups of countries. New financing can take the form of bonds, loans, or other facilities (including note issuance, bankers' acceptance, and standby loan facilities).<sup>3</sup>

<sup>2</sup>The *Institutional Investor* index is a rough ordering of the likelihood that a sovereign borrower will default on a loan. The index ranges from zero to 100 with higher values implying a lower probability of default. The values are published in March and September. September 1983 ratings were used to define the middle market. Although we should not make too much of the precise numerical ratings, the index is based on a survey of international loan officers and reflects their perceptions of relative creditworthiness.

One further criterion is used to ensure that middle-market members are important borrowers: liabilities to U.S. banks must exceed \$1 billion in 1983. Liabilities to U.S. banks are used because the Country Exposure Lending Survey (CELS), in which these data are reported, is in some respects superior to alternative debt measures. Unlike other international lending data, the CELS reports claims adjusted for lending to foreign branches of the borrowing country's banks and third-party guarantees, and is therefore a more accurate measure of debt.

<sup>3</sup>The figures reported in the OECD's *Financial Statistics Monthly* represent new financing arranged in the international markets. Arranged credits need not be drawn down. For example, only about 20 percent of the funds arranged under note issuance facilities (NIFs), included in "Other Facilities," have actually been used by borrowers. NIFs are medium-term facilities through which a borrower issues short-term notes, a group of banks agrees to buy any unsold notes at a prearranged spread over a reference interest rate.

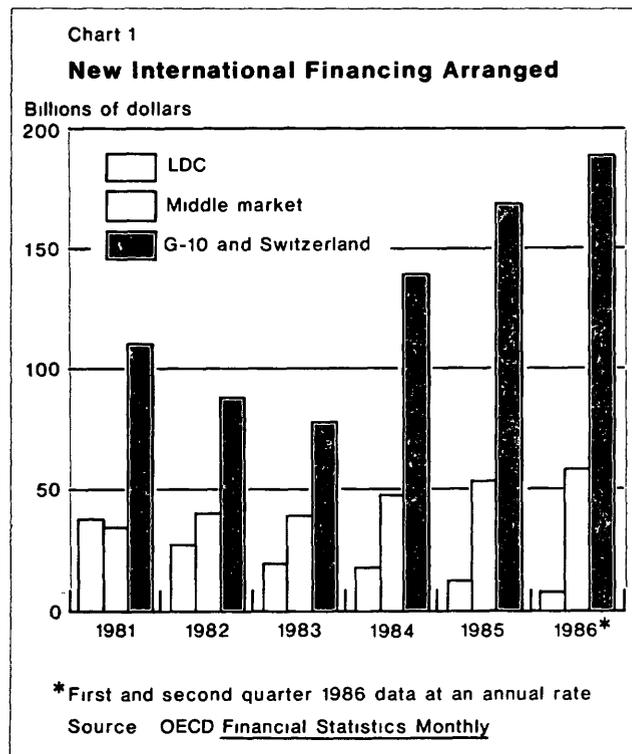
Consider first the LDC segment of the international capital market. These borrowers account for a small and declining share of new financing, especially after 1982 (Chart 1). The post-1982 figures also overstate the level of voluntary new financing arranged by non-OPEC LDCs because the figures include new funds supplied under debt rescheduling agreements. Bank loans have dominated new financing for these borrowers (Chart 2).

In contrast to LDCs, middle-market borrowers have gained progressively better access to the international securities markets. New funding arranged by middle-market countries has grown substantially over the 1981-86 period. This growth is attributable mainly to bond issuance and, to a lesser extent, the arrangement of other facilities. In fact, middle-market borrowers relied on bonds for 52 percent of new funds in the first half of 1986, compared with only 19 percent in 1981 (Chart 3). New bank lending to the middle market has declined both absolutely and relative to other types of credit.

The top tier of borrowers—the G-10 countries and Switzerland—accounts for the bulk of new financing

Footnote 3 continued

Also, only publicly announced medium- and long-term loans are included here. Short-term trade credits and loans arranged privately are omitted. Hence the OECD figures differ from those derived from bank balance sheets, such as the Bank for International Settlements loan data.



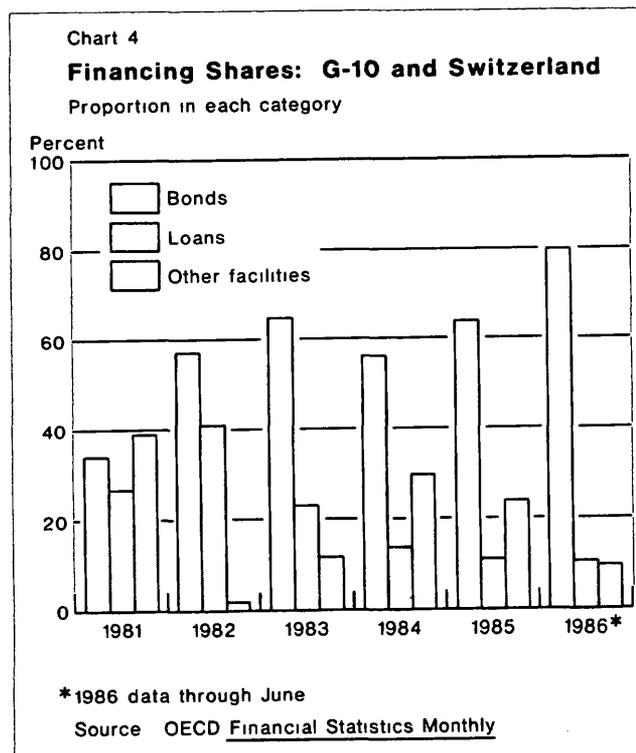
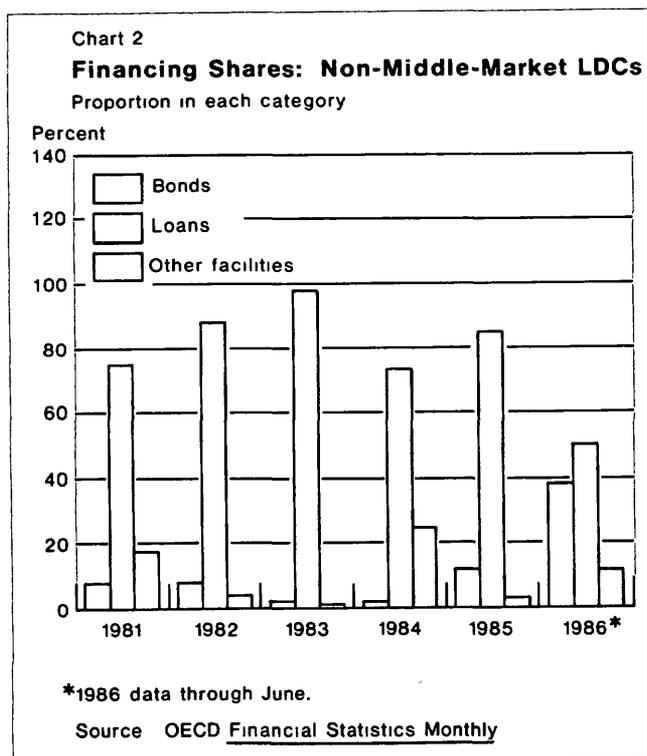
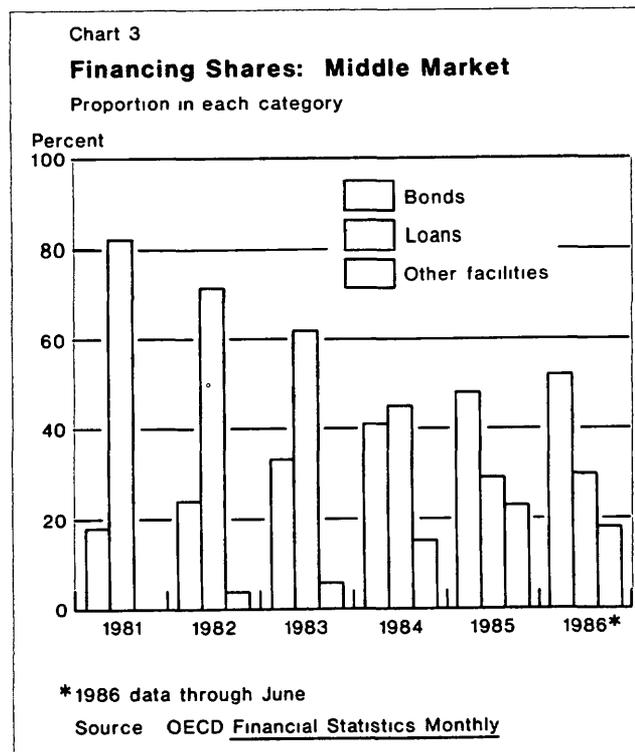
arranged since 1981, particularly in the 1984-86 period. These low-risk borrowers have consistently relied more on bonds than on loans for new funds (Chart 4). Other facilities are also important funding sources for the top tier of borrowers, although these have generally not been drawn down.

### Changes in syndicated loan terms and market conditions

Is the decline in bank lending to the middle market due to a shift in loan market supply or demand? To answer this question, we examine the interest rates charged on middle-market loans. These rates consist of a reference rate, usually the London Interbank Offer Rate (LIBOR), plus a spread representing a risk premium.

To evaluate spreads, we used a sample of 305 LIBOR-based loans made from 1981-I to 1986-II. To limit credit risk variations within middle-market countries, we considered only loans to governments, government agencies, or (borrower) government-guaranteed loans. We used semiannual averages because of the limited number of observations in some quarters.

Changes in loan spreads over time appear to define three periods (Table 1). Spreads declined from the beginning of 1981 until the end of 1982. Following the emergence of the debt problem, spreads increased,



peaking in the second half of 1983. From 1984 until 1986, spreads once again fell.

The changes in spreads are good measures of changes in returns since they have not been offset by variations in other terms and conditions on loans or in the degree of risk. To show this, we analyze two sets of factors. The first is the non-spread loan terms—maturity and grace period.<sup>4</sup> The second includes two determinants of returns that are not explicitly part of the loan contract—the general level of interest rates and the degree of country risk.

Of the two non-spread loan terms, maturity variations tend to confirm the impression of tighter loan terms in 1983, while grace period variations show no real trend. In general, borrowers seek longer grace periods and maturities while lenders have opposite preferences.

<sup>4</sup>During the grace period, the borrower pays only interest on the loan without making amortization payments. Though management, participation, and agency fees also contribute to the profits of major syndicate members, these profits are small compared to the spread component of returns. We have only limited information about fees.

Table 1

**Middle-Market Syndicated Loan Terms**  
Weighted Average Semiannual Data\*

Quarters	Spread	Maturity	Grace Period	LIBOR (six-month)	Country Risk Index
1981					
I-II	54bp	8.5 years	3.8 years	16.7%	63.4
III-IV	50	8.9	3.1	14.9	64.0
1982					
I-II	50	8.8	4.1	15.1	65.5
III-IV	42	8.7	3.7	11.8	62.2
1983					
I-II	60	7.9	3.6	9.6	58.8
III-IV	67	7.4	4.1	10.3	58.2
1984					
I-II	62	7.0	3.7	11.0	60.3
III-IV	61	7.8	4.0	11.7	54.3
1985					
I-II	54	8.0	4.8	9.1	55.4
III-IV	46	7.3	2.3	8.2	54.9
1986					
I-II	45	7.5	3.8	7.4	53.7

\*All averages are weighted by the dollar value of each loan. Since the value of LIBOR reported here is the weighted average of the level prevailing at the loan's signing date, it may differ from LIBOR averages reported in subsequent tables in this article. There are 89 observations for 1981, 74 for 1982, 52 for 1983, 42 for 1984, 36 for 1985, and 13 for 1986(I-II). Fee income is excluded because of missing observations.

Sources: Euromoney Capital Markets Guide, Institutional Investor

Hence, extending the grace period or the maturity implies easier credit.<sup>5</sup> Maturities became somewhat shorter in 1983, with little change afterwards (Table 1). On the other hand, grace periods moved erratically. Thus among the contractual terms, the spreads summarize most of the information about changes in market tightness.

Among the determinants of loan profitability other than the explicit loan terms, an interest-rate increase reduces the return on a loan with a given spread. The explanation is that if the lender's cost of funds moves closely with the reference rate used in the syndicated loan, the present value of payments associated with the spread declines as interest rates rise. Thus if rates rise, spreads must rise to offer the same expected loan return.<sup>6</sup> An increase in country risk also requires that lenders be compensated by higher spreads to maintain the same expected return.

From the end of the period in which the debt problem emerged (1981-82) until the end of the first post-debt problem phase (1983), average LIBOR fell by about 150 basis points while the average country risk rating declined by four points. The drop in LIBOR implies greater loan returns, reinforcing the conclusion that terms became tighter in this period. Even though the decline in the country risk index suggests that higher spreads may have been appropriate, a fall of four points in the risk index is not substantial and cannot explain the 25-basis-point rise in spreads between the end of 1982 and the end of 1983; countries four points apart in the index have similar country risk and would not normally pay spreads 25 basis points apart.

In the following period (1984-86), LIBOR fell sharply while the risk index continued to drop. The deterioration of the country risk index tends to confirm the impression given by loan spreads of easier credit terms. But in this

<sup>5</sup>Theory alone cannot tell us whether longer grace periods and maturities are consistent with higher or lower expected returns. If there is no possibility of default, extending the grace period or the maturity increases the rate of return on a syndicated loan. A longer grace period implies that interest is paid on the full principal of the loan for a longer period. A longer maturity extends the period over which interest payments (including the spread) are made. However, if there is a possibility of default, the expected return on a loan may decline when either the grace period or the maturity is lengthened. The cumulative probability of default rises over time, so the lender may prefer rapid amortization.

Ultimately, liquidity and general interest-rate risk may be more important than credit risk, for example, the yield curve for default risk-free Treasury bonds usually slopes upwards, providing a premium for longer term investments.

<sup>6</sup>This is difficult to show for a syndicated loan but can be illustrated by a \$1 perpetual bond that pays a spread  $s$  over LIBOR. If banks discount future payments at LIBOR and have flat interest rate expectations, then the present value of the bond is  $(LIBOR + s) / LIBOR$ . To keep this value constant as LIBOR rises, the spread must increase at a rate of  $s / LIBOR$ . In general, we observe that the various types of interest rate spreads increase as interest rates rise.

case, the drop in LIBOR suggests the possibility that loan returns increased despite falling spreads.

We can show that the decline in LIBOR was not sufficient to offset the fall in spreads by calculating the change in spreads that would be required to offer the same contractual return in the first half of 1986 as in late 1983. This contractual return is the percentage by which the present value of loan payments exceeds the amount loaned.<sup>7</sup> Using the average values of the grace period and maturity over the late 1983 to early 1986 period, and noting that LIBOR fell from 10.3 percent to 7.4 percent, we can calculate that the average spread would have to fall by about 5 basis points to offer the same contractual return. Hence despite the decline in LIBOR in the second period after the debt problem emerged, the 22-basis-point fall in spreads cannot be explained by declining interest rates. Credit terms did indeed ease after 1983.<sup>8</sup>

<sup>7</sup>In calculating the contractual return, we assume that there is no possibility of default. The greater the probability of default, the less sensitive the expected return to interest rate variations. This follows because as the probability of default rises, the likelihood of receiving payments in the more distant future declines. It is these more distant payments that are most affected by a change in the rate of discount. Therefore if default is possible, an even smaller fall in spreads is needed to offset the drop in LIBOR.

<sup>8</sup>This view is supported by the financial press, see for example, "Back to the Borrowers' Market," *Euromoney*, May 1984.

The easing of lending terms after 1983 has allowed many middle-market borrowers to refinance loans at lower spreads. For example, the Danish Export Finance Corporation renegotiated a \$200 million loan in October 1984 at a spread of 37.5 basis points over LIBOR for eight years. The initial loan, made in July 1983, carried a spread of 50 basis points for three years, rising to 62.5 basis points for the next four years. Ireland renegotiated a \$120 million loan in December 1985 at a spread of 25 basis points for 10 years. The spreads on the original loan, completed in January 1984, were 37.5 and 50 basis points for the first three and next seven years respectively.

#### Middle-market floating-rate note issuance

The decline in bank lending to the middle market coincided with an increase in floating-rate note (FRN) issuance by middle-market borrowers.<sup>9</sup> Since FRNs are known to appeal mainly to bank investors, the question arises whether middle-market borrowers merely shifted from one form of bank funding to another. This, however, was not the case.

An FRN is a medium-term security (typically five to ten years) that pays a coupon which is tied to a base interest rate. For example, the note might offer a coupon equal to LIBOR plus a spread of 25 basis points. An FRN, therefore, resembles a syndicated loan with a grace period equal to maturity, but is more liquid, provided the borrower remains creditworthy.

A borrower that issues an FRN is probably still relying on bank funding while an issuer of a fixed-rate note is not; banks hold roughly 75 percent of the total volume of FRNs issued and may prefer FRN investments to loans because of their greater liquidity.<sup>10</sup> Banks are far less likely to invest in fixed-rate issues because the coupons on fixed-rate bonds do not rise and fall with bank funding costs, i.e., fixed-rate bonds present greater interest rate risk to banks than FRNs.

Middle-market borrowers have, for the most part, issued fixed-rate bonds (Table 2). Even if we assume that all FRN investors are commercial banks, while all fixed-rate bond investors are not, then total bank-supplied funds to middle-market borrowers have declined more or less steadily since 1982. This is certainly true relative to total middle-market borrowing, and with the

Table 2

#### Nonbank and Bank-Supplied Middle-Market Funds

Billions of Dollars\*

	(1) Fixed-rate Bonds	(2) Loans	(3) Floating-rate Notes	(2+3) Total Bank Funding
1981	4.5	27.9	1.6	29.5
1982	7.1	28.5	2.7	31.2
1983	8.5	24.3	4.4	28.7
1984	11.3	21.1	7.8	28.9
1985	16.3	15.3	9.5	24.8
1986†	24.6	17.5	5.3	22.7

\*Assumes all floating-rate notes are purchased by commercial banks and fixed-rate bonds are purchased by other investors. The proportion of fixed-rate Eurobond issues in the Securities Data Corporation international bond data base is applied to the OECD total of international bond market issues. Although traditional foreign bond market issues prior to 1984 are excluded from the Securities Data Corporation base, very few foreign issues for middle-market borrowers have been FRNs.

†Year through June at an annual rate.

Sources: OECD *Financial Statistics Monthly*, Securities Data Corporation.

<sup>9</sup>Note issuance facilities are not considered in this section. As described earlier, these facilities have been substantially less important as a source of new funds for middle-market borrowers than the bond market.

<sup>10</sup>See G. Ugeux, *Floating Rate Notes* (London: Euromoney Publications, 1985), page 59. Although banks do hold fixed-rate securities, they generally hold very low risk bonds like U.S. Treasuries or tax exempt issues.

exception of a slight 1984 increase in bank funding, it is true in absolute terms as well. While a shift from bank lending to FRN issuance apparently began in 1983, the volume of FRN issuance did not fully offset the decline in loans.

To determine whether FRN investors, like bank lenders to the middle-market, received less compensation for given country risk levels after 1983, we assembled a sample of 89 FRN issues by middle-market sovereign borrowers. Using average annual figures calculated from this sample, we can assess changes in FRN spreads over the 1981-86 period (Table 3).

It is apparent that the spreads on FRNs are much lower than on syndicated loans. These lower FRN spreads are at least partially offset by the greater liquidity of the notes. Like syndicated loans, FRN spreads declined sharply after 1983.

As in the case of syndicated loans, we must consider FRN maturities, the level of LIBOR, and country risk to be certain that changing spreads are indicative of changes in market tightness. Looking first at maturities, it is clear that maturities lengthened after 1983 (Table 3). This may be somewhat misleading because many of the FRNs are subject to call or put options that change their effective maturities. In any case, the maturity figures do not suggest a tightening of terms.

To measure the effect of declining interest rates, we can again calculate the change in spreads that would maintain a constant contractual return, given the drop in LIBOR. Since weighted average LIBOR fell from 10.3 percent in 1983 to 7.8 percent in 1986, and the average maturity over the post-1983 period was 16.5 years, an 8-basis-point drop in spreads would offer the same

contractual return as in 1983.<sup>11</sup> Hence the 13-basis-point decline can only be partially explained by falling interest rates.

The average risk rating of FRN issuers has consistently been better than the corresponding loan market figure, less risky borrowers have better note market access. But as middle-market borrowers that traditionally relied on syndicated loans for funds have instead issued FRNs, the average country risk rating of these FRN issuers has generally deteriorated.<sup>12</sup> Thus in the FRN market as well as in the syndicated loan market, the risk-compensated returns to middle-market funding seem to have fallen.

#### Middle-market fixed-rate bond issuance

The declining quantity of bank-supplied funds to the middle market and the falling spreads on loans and FRNs imply a contracting middle-market demand for bank financing after 1983. At the same time, rising issuance of fixed-rate bonds by these borrowers suggests an increase in either the supply of or demand for nonbank funds.

While we do not have enough data on fixed-rate yields to distinguish supply from demand shifts,<sup>13</sup> indirect evidence suggests that the growth of fixed-rate middle-market borrowing parallels the experience of the top tier of country borrowers. For example, the increase in fixed-rate issuance by both middle-market and G-10 borrowers primarily occurred in the Eurobond market, rather than in traditional foreign bond markets (Table 4). Also, the middle-market members with country risk ratings most like those of G-10 borrowers have benefitted most from the expansion of Eurobond market issues. The average country risk rating of middle-market fixed-rate issuers has been better than the index levels for middle-market FRN issuers and borrowers in the syndicated loan market.

Improved access to the fixed-rate bond markets was not a matter of medium-risk issuers entering the market for the first time. Instead, countries that already had access to the market were able to issue bonds in much greater volume. This group includes the more highly

Table 3

#### Middle-Market Floating-Rate Note Terms

Weighted Average Annual Data\*

	Spread	Maturity	LIBOR (six-month)	Country Risk Index
1981	17bp	7.2 years	17.0%	72.9
1982	22	8.9	13.3	69.4
1983	23	9.5	10.3	65.1
1984	14	16.6	11.2	65.8
1985	11	17.2	9.0	62.0
1986†	12	13.4	7.8	68.0

\*All averages are weighted by the dollar value of each issue. There are 8 observations for 1981, 14 for 1982, 15 for 1983, 19 for 1984, 24 for 1985, and 6 for 1986. No effort is made here to evaluate the effect of call and put options on spreads. A careful analysis of these would require the use of options pricing theory.

†Year through June

Sources: Securities Data Corporation, *Institutional Investor*

<sup>11</sup>The fall in the average spread needed to maintain a constant contractual return is greater in the FRN case than the syndicated loan case. Because FRNs are generally amortized only at maturity, the present value of an FRN is more sensitive to interest rate variations than a syndicated loan. That is, the "duration" of an FRN exceeds that of a syndicated loan with an equal maturity.

<sup>12</sup>The increase in the risk index in the first half of 1986 is based on only six observations. The financial press clearly believes that risk-compensated FRN spreads have declined over time. For example, see "Risk Without Reward," *Standard & Poor's International Credit Week*, December 1985, "The Deteriorating Risk-Reward Ratio," *International Financing Review*, July 26, 1986.

<sup>13</sup>A sample restricted to fixed-rate bonds, without special features such as call or put options, issued by government or government-guaranteed borrowers contains few observations prior to 1983.

rated European middle-market countries, Australia, and some East Asian borrowers such as South Korea and Malaysia. Even prior to 1984, these and other middle-market members were able to tap the foreign bond markets, particularly in Tokyo.<sup>14</sup>

Since the growth of middle-market fixed-rate bond issuance in the Eurobond market coincides with the growth of fixed-rate issuance by top-tier borrowers, and because the least risky middle-market members were the most active issuers, we conclude that the same basic factors account for the expansion of both middle-market and G-10 fixed-rate borrowing. A full discussion of these factors is too broad a topic for this article, but several important developments can be cited. The growth of the current account surplus in Japan, coupled with the preference of Japanese investors for securities over nonmarketable assets, the general decline in long-term real interest rates after 1982, financial market innovations, particularly swaps, and the increased competition among financial institutions to provide credit enhancements for securities issues.

<sup>14</sup>See OECD *Financial Market Trends*, October 1984, pages 70-72

Table 4

**G-10 and Middle-Market  
Fixed-Rate Bond Issuance**  
Billions of Dollars\*

	G-10 and Switzerland		Middle Market		Average Risk Rating
	Total Issuance	Of which Eurobonds	Total Issuance	Of which Eurobonds	
1981	31 0	20 0	4 5	1 6	83 1
1982	46 2	33 4	7 1	3 2	80 8
1983	43 6	28 9	8 5	4 1	75 5
1984	58 5	44 1	11 3	7 1	77 0
1985	82 1	66 2	16 3	12 1	77 1
1986†	139 2	119 1	24 6	18 0	78 4

\*Assumes all traditional foreign bond market issues are fixed-rate Eurobond fixed-rate issues are estimated by applying the proportion of fixed-rate Eurobond issues in the Securities Data Corporation international bond data base to OECD international bond issuance totals. The OECD figures are more comprehensive prior to 1985 but do not provide a breakdown of fixed- vs floating-rate issues. A sample based on the 1985-86 Securities Data figures supports the assumption that nearly all middle-market traditional foreign bond market issues were fixed-rate.

†Year through June at an annual rate

Sources: Securities Data Corporation, OECD *Financial Statistics Monthly*, *Institutional Investor*

All of these imply that at a given cost, middle-market borrowers enjoy an increase in the supply of fixed-rate funds. The surge in Japanese investment represents a clear increase in supply, particularly since East Asian middle-market borrowers had found favor with Japanese investors before 1984. The general decline in real interest rates from historically high levels made fixed-rate borrowing more attractive compared to the floating-rate alternative, benefitting all fixed-rate borrowers. Financial market innovations, such as swaps, have complex effects on international borrowing, but to the extent that they improve the efficiency of securities markets, these innovations tend to reduce borrowing costs. These innovations took hold first in the unregulated Eurobond market where fixed-rate issuance grew most rapidly. Competition among suppliers of credit enhancements can provide new participants access to the bond markets.

**Conclusion**

The data on the quantity of new middle-market financing and spreads suggest that two distinct phases followed the emergence of the LDC debt problem. The first post-debt problem phase extended from early 1983, after the debt problem arose, until roughly the end of 1983. This period was characterized by a declining supply of new bank funds (loans and FRNs) to middle-market borrowers.

A plausible explanation for the declining supply of bank funding to the middle-market is that the LDC debt problem widely tainted international lending. Even though middle-market countries did not reschedule debt payments by 1983, the debt problem made rescheduling by sovereign borrowers appear more likely.

The second post-debt problem phase began in 1984 and continued through the first half of 1986, the latest period for which we have comprehensive data. The level of new bank funds continued to decline, but spreads declined as well. Hence this period is characterized by a fall in the demand for bank funds.

The second post-debt problem period coincides with the worldwide boom in securities issuance. Middle-market borrowers benefitted from the declining cost of issuing fixed-rate bonds, reducing their reliance on bank-supplied funds. Since the most creditworthy members of the middle market have gained the most rapid access to nonbank financing, the average riskiness of borrowers that still rely on bank funding has increased.

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