The international market for floating-rate instruments

The international market in floating-rate notes, a financial innovation dating from 1970, has grown substantially in the last three years. This article, prepared mainly by Ms N F E Ramsden of the Bank's International Division, analyses the present structure and conditions of the markets in floating-rate instruments, and the activities of the major borrowers and investors. It assesses the implications of the growth in these instruments for international financial markets more generally, and for banks in particular. It also shows how such flows are recorded in the UK balance of payments and international banking statistics.

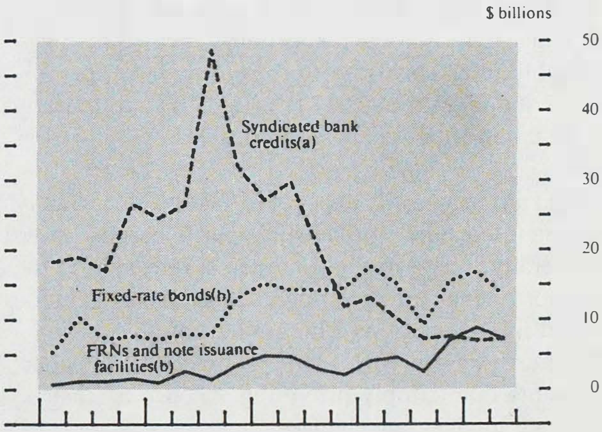
Funds raised through floating-rate notes (FRNs) rose from under $5 billion in 1980 to $15 billion in 1983. Issues completed in the first half of 1984 alone, at $13 billion, almost matched the total for the whole of the previous year. This rapid growth represents a relative gain on the fixed-rate bond market and, perhaps more importantly, on the syndicated credits market. In the first quarter of 1984, FRNs exceeded announcements of syndicated credits for the first time.

A notable feature of recent developments has been a shift in the terms on FRNs in favour of borrowers, as strong investor demand and competition among banks to lead issues has eroded both interest margins and fees. The FRN market also appears to have matured: the size of issues and length of maturities available to borrowers have increased, and the secondary market has gained depth. As a marketable investment, the FRN has recently benefited from the desire of certain investors—especially banks—for greater liquidity and flexibility in the management of their assets.

There has also been an increase in the use of a slightly different and more recently developed floating-rate instrument: the note issuance, or revolving underwriting, facility. This blends characteristics of capital market paper and bank credits in an attempt to match lenders' preference for liquidity with borrowers' demand for medium-term funds. Its recent popularity appears to be a further manifestation of banks' desire to hold assets in a more liquid form.

The prominence attained by these capital market instruments is an important feature of the way in which international lending has developed in the last few years, and particularly since the onset of some countries' debt servicing problems in mid-1982. International bank lending flows have grown much less rapidly[1] and have divided distinctly into the 'unspontaneous' lending involved in rescheduling and lending to problem debtors on the one hand, and the traditional syndicated credits market, which has become increasingly subdued, on the other. In contrast, the international bond market is still enjoying a revival which began with declining interest and inflation rates at the end of 1981.

Funds raised in international capital markets



(a) Announcements.
(b) Completions.

The development of the floating-rate note

The introduction of the FRN in 1970 was a classic instance of innovation in response to new financial market conditions. Its aim was to bridge the gap between the demand for, and supply of, medium and long-term funds by paying investors an interest rate which changed in line with short-term money-market interest rates. It was a logical counterpart in the bond market to the development of 'roll-over' bank credits.

The original and narrow function of the FRN was as an alternative to fixed-rate bonds at times when rising or volatile interest rates discouraged lenders from committing their funds long term at fixed interest rates. The first FRN, for the Italian borrower ENEL, was issued following a period of rising interest rates and investor disenchantment with the fixed-rate bond market. In this climate it had become virtually impossible for borrowers to raise more than $25 million in one issue.

(1) See 'International banking markets in 1983' in the March *Bulletin*, pages 54–67.

Since 1970 interest rates have fluctuated widely, and at times an inverse yield curve (when short-term interest rates exceed long-term rates) has emerged, which may have encouraged investors to switch to short-term assets.

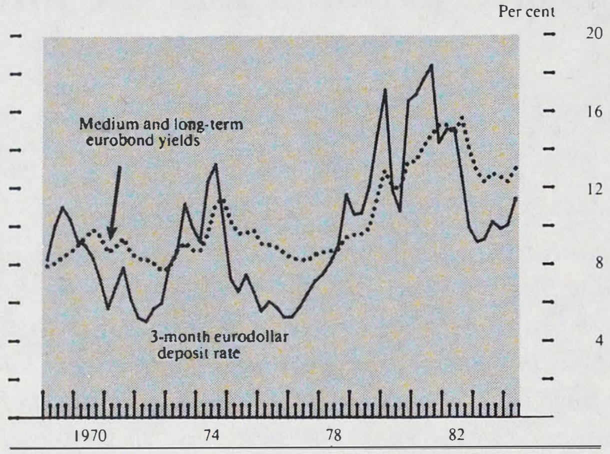
The fixed-rate bond markets cannot easily adapt to varying rates of inflation. In the late 1960s, shortening maturities on fixed-rate bonds were one symptom of the changes required to maintain investor interest in the face of rising inflation and interest rates in the United States (the US dollar being the most important currency of denomination in the eurobond market), but they did not entirely overcome the difficulty that fixed-rate lenders bear all the price risk when interest rates change. Floating-rate notes transfer this risk to the borrower. Furthermore, volatile interest rates increase the difficulties faced by borrowers in deciding the timing of long-term debt issues. FRNs have enabled risks to be shared more equally between borrowers and lenders, and—to the extent that the real problem created by high and variable interest rates is uncertainty, both for borrowers and investors—the FRN has had an important role in sustaining bond market activity.

One would not necessarily expect FRN issues to be highly sensitive to interest rate movements, partly because these notes generally carry a minimum interest rate, and partly because borrowing and investment decisions are often influenced by expectations which may not always be fulfilled. Furthermore, FRNs have in practice met wider requirements than simply providing a hedge against inflation and interest rate changes.

Until recently, FRNs afforded access to the bond market to a wider range of borrowers. Private individuals and non-bank institutions, who buy the majority of bonds, are generally not well placed to assess the credit risk of borrowers other than the most well known and creditworthy ones. For banks however, the interest rate structure on an FRN makes it a suitable investment as they can match it against short-term liabilities. To the extent that banks became buyers of FRNs, it was possible for lesser known borrowers to issue them and so tap the bond market. Moreover, the FRN market became a useful means of testing non-bank investors' receptiveness to new names, possibly prior to a fixed-rate issue: if an issue was badly received, the managing and underwriting banks could hold the paper themselves with less funding risk than would be incurred with a fixed-rate bond. Nevertheless, FRNs played only a minor role in funding the balance of payments deficits which emerged after the two oil price shocks of the 1970s; most of the international lending to non-oil developing countries at this time was done in the form of syndicated credits.

The substitution of floating-rate notes for syndicated credits did not go very far in the 1970s. From the point of view of borrowers, the FRN is less flexible than a syndicated credit—for example, it does not offer flexible draw-down, or a choice of interest payment periods.

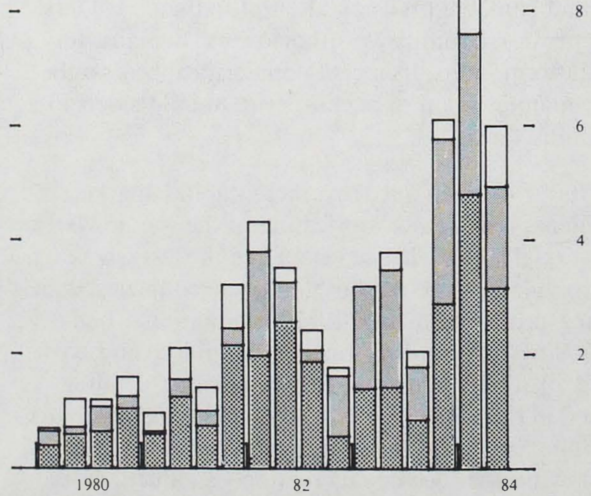
Interest rates



Occasionally, FRN issues which appeared to be taken up mostly by banks were described as 'disguised syndicated loans'. This was because FRNs could be bought in smaller denominations than the minimum size for participation in a syndicated credit, and so permitted small or recently established banks to participate in international lending. Furthermore, regulatory constraints on banks in certain countries, which may at times have added to the cost of lending in the form of syndicated credits, did not apply to FRNs and perhaps therefore encouraged their use. At times when spreads on syndicated loans were low, some banks may have been more attracted by the benefit implicit in the greater potential liquidity offered by FRNs.

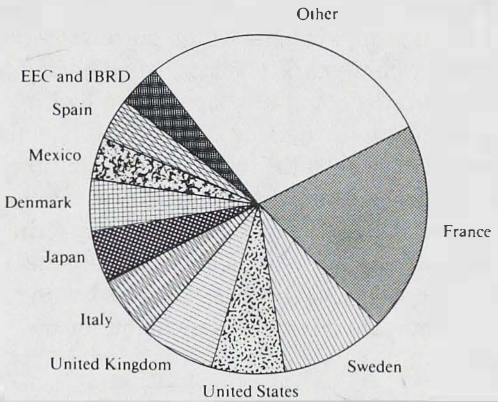
Until 1982, the rationale for issuing an FRN rather than arranging a syndicated credit was—for most

Floating-rate notes: types of borrower



(a) Includes EEC borrowing on behalf of France.
(b) Includes IBRD.

Nationality of principal issuers of FRNs: 1980–84



borrowers—the diversification of funding sources achieved by selling paper to non-banks or to banks which would not otherwise have participated in international lending.

FRN issues by banks

A more important factor underpinning the growth of the FRN market, particularly in the past year, was the use made of it by banks as borrowers. Banks have accounted for over half the funds raised in the FRN market since 1975, when the collapse of the Herstatt bank and the subsequent price 'tiering' in the interbank market made clear the value of long-term funding, particularly for banks which lacked a natural dollar deposit base.

As an alternative source of funding for banks, the FRN was rather expensive. Until 1983, the typical cost of obtaining longer-term funding through FRNs was $\frac{1}{4}$% over Libor, plus front-end fees of up to $2\frac{1}{2}$%. Nevertheless, there has been a steady supply of bank borrowers in the FRN market, even when conditions in the interbank market were easy, because banking regulations in some countries—notably France and Japan—require banks to match a proportion of their lending with long-term liabilities. French banks have a further incentive to borrow through the FRN market, since credit controls in France do not apply to lending funded by bond issues. French banks have become the most prominent single group of borrowers.

FRNs are only one of a number of alternatives to borrowing on the interbank market. Floating-rate certificates of deposit (FRCDs), introduced in 1977, have served a similar purpose. The maturities available are shorter, but issuing costs are lower. FRCDs are negotiable instruments and do not require a prospectus and other costly documentation. Japanese banks have been the major issuers of FRCDs. Until recently, only the long-term banks and Bank of Tokyo were able to borrow through FRNs, but in the last two years a wider range of Japanese banks has been permitted to tap the FRN market.

Another source of long-term floating rate funding for banks is the interest rate swap, widely used since 1981 (an explanation of this technique is given on page 340). Bank borrowing in the FRN market has fluctuated to some extent with opportunities and cost advantages in the swap market.

In several countries, FRNs issued by banks in subordinated form are counted as capital; this allows the bank to gear up rather than merely fund lending. This is true in the United Kingdom,(1) the United States (where issues of subordinated FRNs count as secondary capital), Canada, Belgium, Ireland, Norway, Sweden, Finland and Austria; banks from all these countries currently have subordinated FRNs outstanding. It does not apply in the Federal Republic of Germany, Japan or France.

An interesting feature of the market is the extent to which banks buy FRNs issued by other banks. Some estimates put this share at 80% or more, although the paper may be sold eventually to non-banks. The FRN market has thus supplemented the interbank market. Some banks may have been prepared to lend more to other banks than they were doing through the interbank market, and bought their outstanding FRN paper instead. This has created a favourable climate for banks to make new issues and a number of UK-incorporated banks took advantage of it by making large issues on very fine terms earlier this year.

In May, the Bank of England reminded banks of its principles for the supervisory treatment of banks' holdings of subordinated FRNs issued by other banks; that is in principle to deduct from a bank's capital base any holdings of another bank's capital paper, whether equity or subordinated debt. However, in order to maintain the liquidity of the market in banks' subordinated debt, including FRNs, the Bank indicated that it was prepared to consider concessions for specialist market makers in such issues.

Some idea of how banks' holdings of FRNs have grown is given in the table, which shows the investments of banks in the United Kingdom.

The preponderance of Japanese banks is striking. Their share of FRN holdings by banks in the United Kingdom has not fallen below 50%, and had risen to 66% by May 1984. Japanese banks are also active borrowers in the FRN

Floating-rate note holdings of banks in the United Kingdom

$ billions

	1983			1984	
	May	Aug.	Nov.	Feb.	May
Total	**7.9**	**8.5**	**10.1**	**11.7**	**13.1**
of which:					
Japanese banks	4.5	5.2	5.8	7.3	8.6
American banks	0.7	0.5	0.9	0.7	0.9
British banks	0.6	0.6	0.8	0.7	0.9
Consortium banks	0.6	0.6	0.7	0.8	0.4
Other overseas banks	1.4	1.5	1.9	2.2	2.3

(1) Subject to certain minimum requirements and limitations—see *The measurement of capital* issued by the Bank in September 1980 and reprinted in the September 1980 *Bulletin*, pages 324–30.

A guide to the main instruments

Floating-rate note

This is a medium to long-term bond (most maturities are from five to fifteen years), evidenced by negotiable bearer notes in denominations of at least $1,000, and with a coupon consisting of a margin over an appropriate short-term reference rate—usually the London interbank offered rate (Libor) for three or six months deposits. The coupon is paid at the end of each interest period and is then adjusted in line with current rates for the next interest period. Like fixed-rate eurobonds, most FRNs are nominally listed on a stock exchange, although the market in them is conducted almost entirely by telephone and telex.

Interest rate swap

A swap exploits differences in the assessment and pricing of risk between the bond and bank lending markets, and shares between two different borrowers the advantages which each might enjoy in one of the markets. For example, an internationally unknown US company, with a medium credit rating, could only raise fixed-rate funds in the international bond markets, if at all, by paying a very high coupon, although floating-rate bank loans could be obtained more cheaply. An international corporation or bank with 'triple A' credit rating, on the other hand, might expect to pay among the lowest coupons on a fixed-rate bond issue. By arranging a bank loan at floating interest rates, and swapping interest payments with a borrower with good access to the bond market, a lesser rated borrower can obtain fixed-rate debt at lower cost than had it issued a bond under its own name. The interest benefits are usually shared between the two parties so that the bank pays an interest rate below Libor. Interest rate swaps can therefore be a cheaper source of long-term floating-rate funding than issuing FRNs, and bank borrowing in the FRN market has fluctuated with opportunities and cost advantages available in the swap market.

Note issuance facility

A note issuance facility (NIF) is a medium-term loan, which is funded by selling short-term paper, typically of three or six months maturity. A group of underwriting banks guarantees the availability of funds to the borrower by purchasing any unsold notes at each roll-over date, or by providing a stand-by credit. Where the borrower is a bank the paper is usually in the form of short-term certificates of deposit; where the borrower is not a bank it is in promissory notes. Note issuance facility is used here as a generic term. In practice, facilities produced by competing banks are called, variously, revolving underwriting facilities, note purchase facilities, and euronote facilities.

and FRCD markets and their activity on both sides of the FRN market appears to signify a continuing preoccupation with balance sheet growth. Purchases of FRNs may well have compensated for a lack of lending opportunities in the syndicated credits market, and for Japanese banks FRNs are not subject to the matching deposit requirements which the Japanese Ministry of Finance imposes on less liquid assets such as bank credits. Japanese banks have been free, therefore, to take advantage of a positive yield curve to fund their purchases of FRNs at very short maturities, and they also appear to have become more active traders of FRNs, particularly since the second half of 1983 when a number of issues with terms which appeared out of line with investor demand registered sharp price increases in their first few weeks.

Aftermath of the international debt difficulties

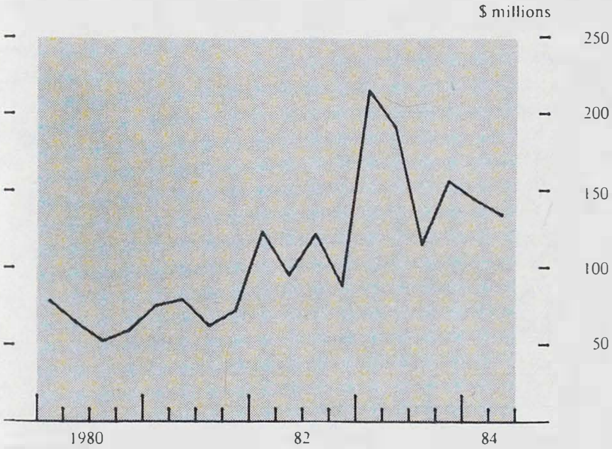
The pattern of international lending since August 1982 has been much affected by the debt difficulties of certain sovereign borrowers. Banks have had to revise radically their assessment of the risks involved in large-scale syndicated lending and have begun to seek other lending opportunities in industrialised countries and in those developing countries which appear unlikely to encounter debt servicing problems. Furthermore, banks have increasingly sought forms of lending which would increase their control over the composition of their assets.

At the same time, investors may have begun to regard bank deposits as more risky investments than before, and to favour a more direct relationship with certain high quality borrowers. Balance of payments developments after 1982—the erosion of the OPEC surplus, and the emergence of surpluses in Europe—increased the supply of funds from investors with a greater preference for securities.

These changes in the supply of funds to the international bond market may have reduced bond issuing costs for the most favoured borrowers. In any case, falling inflation and interest rates from 1982 stimulated a long rally in the international bond markets, leading to record issues of fixed and floating-rate bonds. As the number of issues has grown, so have the specialised services of investment banks which handle securities rather than syndicate loans. The message that the FRN market had matured, that larger issues were possible and that secondary market liquidity was more certain soon became accepted and was confirmed by the success of an FRN for Sweden early in 1983 which raised a record $1.2 billion. Since then, even larger issues have been made, including $1.8 billion for the European Community and all other terms have moved strongly in favour of borrowers.

Issues of over $1 billion remain exceptional, but average amounts raised have increased, as has the number of issues of $300–$500 million. Confidence in secondary market liquidity (deals of $5 million are possible in some issues) has also encouraged a lengthening of maturities, to the extent that the price of FRNs issued by the most creditworthy borrowers has become almost insensitive to maturity. Issues of up to forty years, and undated (perpetual) issues have been made.

Average size of FRNs and note issuance facilities



The most striking manifestation of investor demand and management competition in the FRN market is a narrowing of spreads and reduction of fees. Typical spreads have been reduced from $\frac{1}{4}$% to $\frac{1}{8}$% over Libor in the past year, and when demand for paper issued by the most favoured borrowers reached a peak early in 1984, some banks issued FRNs bearing a coupon of Libor only. Management fees on many issues have been reduced from around 2% to around $\frac{1}{2}$% in the same period.

Note issuance facilities

Investment and management competition has been similarly intense in the market for note issuance facilities (NIFs), although the low costs in this market are partly a result of the way in which facilities are structured (see page 340).

The first widely publicised NIF was arranged in April 1981, for the government of New Zealand. The amount made available to the borrower was $500 million, but was subsequently increased to $750 million.

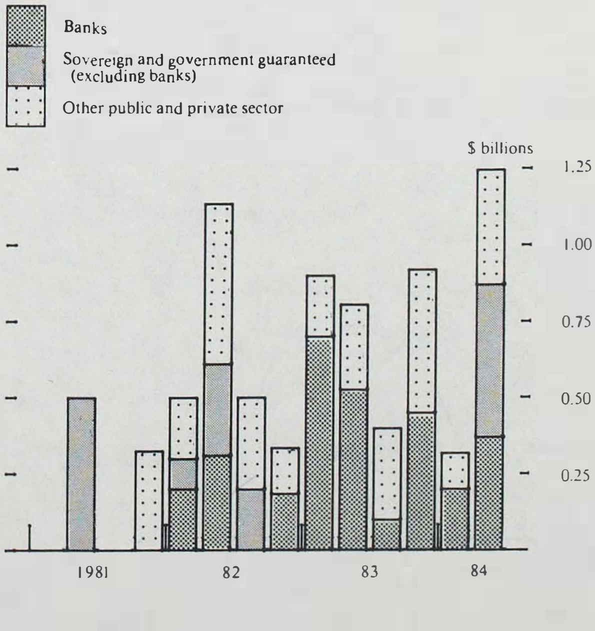
Some $800 million of these facilities were arranged in 1981, and three times that amount in 1982. The growth rate moderated in 1983, when $3 billion was raised, but has picked up strongly since the beginning of 1984. Issues amounting to more than $1.5 billion had been completed by end-June and the same amount again was in the pipeline and had been completed by end-July.

The rapid growth of these instruments confirms their attraction not only to borrowers and lenders but also to the intermediating banks—who may, of course, be lenders at the same time. Note issuance facilities are even more liquid than FRNs because the purchaser only acquires a three or six month note after which he can choose whether to participate in the next issue of notes. The underwriting banks, for their part, limit their risk by confining NIFs to the more creditworthy borrowers, mostly banks and borrowers from minor OECD countries.

Banks seem to have become the dominant holders of these notes and the narrow margins they and other investors are prepared to accept on them, together with very competitive management and underwriting fees, have made these facilities extremely attractive to a few borrowers. As with the FRN market, borrowers who may have been reluctant to seek bank credits in the immediate aftermath of August 1982 soon discovered that NIFs were available to them on far better terms than their previous bank borrowings. It is not surprising that many took the opportunity of restructuring their existing liabilities on cheaper terms, or borrowing well in advance of expected needs. Some facilities have replaced undrawn bank credit lines and the low fees partly reflect the banks' expectation that the new facilities are not likely to be used. Major refinancings for Denmark and Spain give some idea of the low costs:

- The Kingdom of Denmark completed in July a $1 billion note issuance and stand-by facility to replace undrawn stand-by credits, on which it was paying commitment fees of some $\frac{3}{8}$%. The equivalent fee on the new facility is only 0.05%, although costs are designed to escalate should the facility be used.
- The Kingdom of Spain arranged a $500 million revolving underwriting facility, part of which was to refinance existing debt, and part to be retained as a standby. The underwriting fees ranged from 0.125% for the first three years to 0.175% for the last three, with other fees bringing (average annual) costs to 0.3%, compared with 0.5%–0.6% on Spain's last major credit in 1983.

Note issuance facilities: types of borrower



Assessment

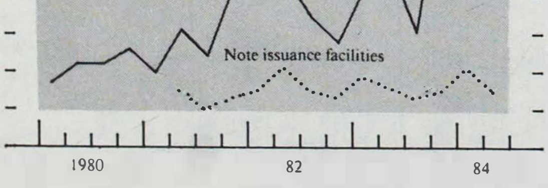
Innovation in domestic financial markets frequently appears to be a response to the growing sophistication of customers of financial services. This is less obvious in international financial markets, where innovation—at least in the case of recent developments in FRNs and NIFs—seems to have grown from the preferences of lenders and intermediaries, and from competition between them. Some borrowers have undoubtedly benefited, although some of the factors which may have moved the terms of borrowing in their favour—in particular, the perceived liquidity of the instruments used—have not been really tested. The other notable influence of lenders' preferences is the restriction of access to the markets to a rather narrow range of countries. The opportunities to borrow in the bond market which the FRN offered to a number of developing countries in the 1970s were damaged by the debt crisis. There have been some FRN issues and note issuance facilities for developing countries in the past two years, but nothing on the scale of funds which used to be available in the syndicated credit market.

Financial innovation tends to produce an increasing range of financial facilities ever more closely geared to needs. It also makes the neat classification of types of business increasingly difficult to achieve and, eventually, irrelevant. The examples discussed in this article represent the development of existing instruments, rather than the invention of something totally new, and as such they erode the distinctions between the existing markets.

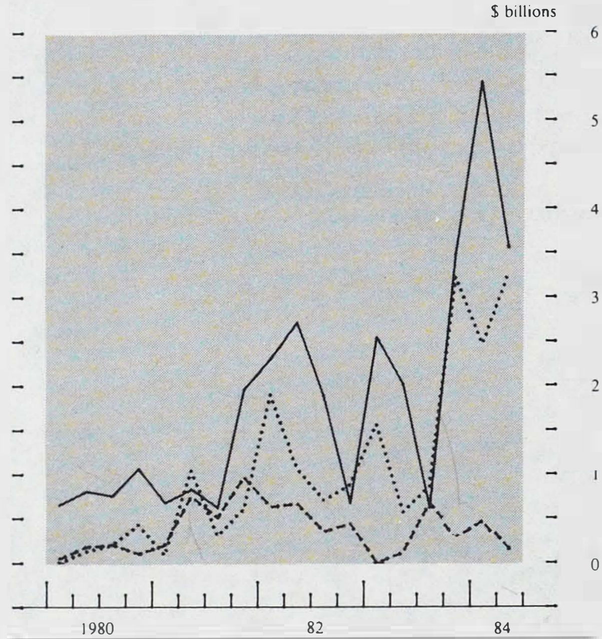
During the 1970s the FRN market filled some gaps in the facilities offered by the bonds and credits markets, but did not seriously compete with them. In the last two or three years, the market has matured sufficiently, especially in terms of secondary market liquidity, to provide banks with a form of lending tailored to their new preferences.

Note issuance facilities have carried this process still further. The NIF owes some of its success to the same factors which have promoted the growth of the FRN, and some to its ability to offer borrowers greater flexibility than the FRN.

Floating-rate capital market issues



FRNs and NIFs: presence in the market of the main country blocs



The key feature of the NIF, however, is that it permits two groups of banks to participate: one to manage or underwrite the facility and one actually to lend the money. This specialisation of functions may help to reduce costs. The managing and underwriting function, and the provision of back-up stand-by facilities, tend to attract banks with an established position and the ability to place paper in the securities markets; or those which aim to build up a presence in these markets; and also those which are interested primarily in fee earning activities (to improve their return on assets) rather than continued expansion of their balance sheets. The lending is typically done by banks which still have an appetite for international assets. These may be major banks which are still seeking growth or increasing their foreign exposure, or they may be smaller, second tier banks which are willing to buy small and liquid participations.

The low cost of NIFs to borrowers comes from the narrow margin which the lenders will accept for genuinely short-term paper of a good name, and from the low fees which the underwriting group of banks will accept for underwriting facilities and arranging stand-by credits—which they expect will never be drawn because the quality of the borrower should ensure continued placement of the paper in the wider markets. It is notable, however, that the remarkably low fees on the Danish $1 billion facility met some resistance from potential participants.

Some of the impetus to undertake purely fee earning or off balance sheet business has undoubtedly come from the capital constraints that many banks previously active in international lending have come up against in recent years. The growing importance of securities as a form of lending, exemplified in the growth of the FRN market, is an example of a movement towards disintermediation.

Both FRNs and NIFs allow the management and lending functions to be separated and so tailor more precisely the instruments to the needs of different types of bank. They also open up the possibility of tapping non-bank investors although even in the longer established FRN market only some 20%–30% of notes are thought to be bought by non-banks; both FRNs and NIFs have achieved prominence largely as bank lending instruments. It is in this context that their risks should be assessed.

The arrangement of FRNs and other securities always carries the risk that an unpopular or unsuccessful issue will have to be taken on to the books of the managing banks, at least for a time. This is a familiar risk to investment banks and is likely to result from unfavourable market conditions at the time of issue. In contrast, the underwriting commitments under a NIF can be called upon at any time during the facility's life, and may be considered most likely to be needed if the borrower's creditworthiness becomes doubtful.

The syndicated credits market has not become entirely moribund as a result of these developments. Its contraction was due as much to the deteriorating creditworthiness of many borrowers as to the banks' attraction to different forms of lending. The syndicated credit may still have a future, particularly if attempts to develop a secondary market are successful. There are considerable legal problems involved in trading credits, and to date most efforts have concentrated on the more limited concept of transferability. This would enable assets to be removed from the balance sheets of banks which are under capital constraints, or wish to make room for new business, and to be taken on by banks which still have room for new lending. It is still too early, however, to judge whether transferability will lead to a genuine secondary market in syndicated credits, or whether the need for such a market will be obviated by the continued development of the FRN and note issuance facility.

Appendix
The statistical treatment of floating-rate notes and note issuance facilities

The speed with which the floating-rate note (FRN) market has grown, particularly in the past two years, has made it considerably more difficult to monitor banks' total external lending. This growth, and the recent development of note issuance facilities (NIFs), has increasingly blurred the distinction between the credit and capital markets. The difficulty arises because FRNs with an original maturity of one year or more are classified as securities in UK statistics, in line with internationally agreed principles, rather than as bills[1] or loans. Consequently, the figures for bank lending in the UK balance of payments accounts, and the country analysis of external bank lending in Tables 14.1, 14.3 and 15 in the statistical annex, exclude the banks' holdings of these FRNs.

The treatment of NIFs is more complicated. The facilities announced so far have taken a number of different forms but most are medium-term arrangements involving the issue of short-term paper with a maturity of three or six months, either certificates of deposit or promissory notes; in some of the larger facilities underwriting commitments have been in the form of a stand-by syndicated credit. In principle, any finance provided by banks in the United Kingdom under these various types of facility should be reported in the statistics as certificates of deposit, bills and promissory notes, or loans and advances, and will be included in the figures for bank lending in the balance of payments and in the country analysis of the banks' external lending. However, as this is a fairly new development, there is some doubt whether the banks are reporting these facilities uniformly. In addition, these facilities cause a potential problem in measuring the maturity structure of borrowing countries' indebtedness, which requires further consideration.

UK banks' balance sheets

Banks (including banks in the United Kingdom) have emerged as major issuers and purchasers of FRNs. Accordingly, FRNs can appear on both sides of the balance sheets of banks in the United Kingdom—as liabilities when banks are issuers of FRNs and as assets when they purchase FRNs issued by other banks or non-banks.

In the banks' balance sheet statistics presented in Tables 3 and 6 in the statistical annex, FRNs are indistinguishably amalgamated with other types of liabilities and assets. On the liabilities side, FRN issues by banks in the United Kingdom, which are reported to the Bank of England as part of a wider category covering 'subordinated securities with an original maturity of one year or more', are included within 'capital and other funds' in Table 3 and 'non-deposit liabilities' in Table 6. Unsubordinated securities and subordinated securities with an original maturity less than one year are included in 'deposits'. On the assets side, FRNs with an original maturity of one year or more are included in the broader category of 'investments' in Table 3 (shorter maturities, if issued, are reported as part of market loans or bills and shown under these headings in Table 3); lending is analysed by sector but not by asset type in Table 6.

The Bank has collected data on banks' holdings of FRNs since February 1983 as part of the reporting requirement on the maturity structure of banks' liabilities and assets. These statistics are not published separately in the statistical annex but FRN holdings are included within 'other assets' in Table 14.2.

Separate figures are not available for the banks' holdings of instruments issued under note issuance and other facilities. However, these holdings should be included in the appropriate category of assets in Table 3 (ie holdings of certificates of deposit and notes issued by banks are under 'market loans'; other bills and notes are under 'bills'; syndicated credits are under 'advances') and are also included in lending in Table 6. The underwriting commitments of banks for NIFs do not feature in Tables 3 or 6 because off balance sheet items are not covered.

Statistics of UK banks' external business and the balance of payments treatment of FRNs

The UK balance of payments accounts show transactions between residents and non-residents (on a flow rather than a stock basis) and the presentation of statistics on banks' external liabilities and claims—including FRN issues and holdings—has been developed to be consistent, where possible, with balance of payments definitions and conventions.

Extensive secondary trading of FRNs makes it impossible for issuers to identify ultimate holders. The extent to which banks' liabilities in the form of FRNs and other securities are to overseas residents, therefore, cannot necessarily be identified by individual banks. The external banking tables in the statistical annex therefore exclude liabilities in these categories. This treatment is in line with the UK balance of payments statistics, where identified acquisitions of such issues by overseas residents are recorded under inward portfolio investment rather than under banks' net external liabilities. Portfolio investment

(1) Bills in this context comprise bills, promissory notes and other short-term paper, and acceptances.

transactions by overseas residents are compiled from data collected quarterly from banks, stockbrokers and other agents who act for clients investing in securities. FRN transactions are not separately identified. The reporting agents complete the returns on a voluntary basis and the entry in the balance of payments is partly estimated to allow for incomplete institutional coverage.

Correspondingly, UK banks' holdings of securities, including FRNs, issued by non-residents are excluded from the data on banks' external claims in Tables 14–16 in the statistical annex and from the figures for banks' net external liabilities recorded in the balance of payments. Instead, such purchases are recorded in accordance with IMF concepts as part of outward portfolio investment in the balance of payments accounts.

As already noted, the banks' holdings of short-term paper issued under NIFs should be included in the country analysis in Tables 14 and 15 in the statistical annex. Commitments to lend by underwriting banks should be included in the figures for unused commitments in Tables 14.3 and 15. In the maturity analysis in Tables 14.2, 14.3 and 15 in the statistical annex, banks' holdings of short-term paper issued under NIFs would normally be included in the less than 6 months category. For most facilities, however, this short-term paper is issued as part of medium-term borrowing. The figures for NIFs included in Tables 14.3 and 15 may therefore distort the maturity profile of external indebtedness of the borrowing countries, making the proportion of short-term borrowing appear to be greater than it is.

Recent substantial and growing banking outflows as a result of purchases of overseas investments (£8 billion since 1979) have been more than matched by a rise in banks' foreign currency liabilities, generally to overseas residents. The increase in FRN investments described in the article reflects a marked change in emphasis in the way in which banks lend abroad. The development represents a shift away from conventional syndicated credits to more marketable lending as banks have sought to improve the liquidity of their international claims. The rise in outward portfolio investment shown in the balance of payments presentation because of this change of emphasis is thus not a reflection of a rise in *net* British investment overseas, and should be seen in the context of the rise in the net external liabilities of the banks.

The interpretation of the balance of payments accounts is further complicated where UK-incorporated banks choose, on grounds of tax efficiency, to issue subordinated loan stocks through overseas subsidiaries. In this case, the subsequent inflow of funds to the United Kingdom— the proceeds of the issue—is recorded as a reduction in outward direct investment in the balance of payments while the counterpart purchases of notes, to the extent that they are made by other UK residents, will be shown as outward portfolio investment.

International banking statistics

The Bank for International Settlements (BIS) is the main source of international banking statistics (a brief description of these statistics is given in 'The international banking markets in 1982', March 1983 *Bulletin* page 52), and draws on data collected and processed by eighteen reporting central banks. In these figures, issues of international paper (ie fixed and floating-rate bonds) by reporting banks on their own behalf are included by very few countries. Several countries obtain statistics of total issues but are unable to provide a domestic/external split of the figures (or any geographical analysis). Moreover, even in cases where details of the original allotment of an issue are available, subsequent changes of ownership are unlikely to be picked up by the statistics.

On the assets side, a number of reporting countries include FRNs, bonds and other investments but several of the larger reporting countries exclude all investments. In its latest annual report, the BIS estimated that the banks absorbed as much as $10 billion of international bonds, predominantly FRNs, in 1983, but that in the main these purchases were not covered in the BIS statistics; this compares with identified net lending to final users of $85 billion. The maturity analysis of lending by banks in the BIS reporting area (Table 13.2 in the statistical annex) will be affected by the problem for NIFs mentioned for banks in the United Kingdom.

The new international banking data compiled by the International Monetary Fund, and published in *International Financial Statistics,* rely, to a considerable extent, on the provision of information from the BIS and therefore have similar gaps in the published data. The partial exclusion of FRNs and other overseas investments from the main sources of international banking statistics must therefore be borne in mind in assessing trends in the provision of international credit.

Other sources of data

The statistics on floating-rate note completions which appear in this article and regularly in the article on 'International financial developments' (see page 331) are compiled from newspapers and market journals by the Bank. Data on fixed-rate bonds and syndicated credits are collected on a similar basis. The FRN figures include all publicised issues in the euromarkets, and foreign issues in domestic markets, of more than one year maturity. Each issue is recorded at its completion date (syndicated credits, on the other hand, are recorded at their announcement dates).