

The international capital markets of Europe

The very rapid growth of euro-currency markets in recent years has been accompanied by a similar broadening of international capital markets, particularly those on the Continent. The euro-currency business of banks in London has been the subject of earlier articles in the *Bulletin*, most recently in March this year. This article describes the growth of international borrowing at longer term in Europe in recent years.¹

The historical background

Until the Second World War the only major international capital markets were centred in London, New York and Switzerland—some foreign borrowing by market issues took place in other Continental centres, but this was very occasional and relatively small. After 1945, the number of issues on the Swiss market tended to grow although their size, whether domestic or foreign, remained modest. Other Continental new issue markets mostly remained closed to non-resident borrowers, save for a few issues by international institutions and, in some cases, by overseas territories of the countries concerned. Overseas borrowing on the London market was largely confined to the sterling area.

The emergence of a deficit in the U.S. balance of payments during the 1950s, and the re-establishment of the convertibility of the major West European currencies at the end of 1958, encouraged the growth of foreign deposits with European banks in currencies other than the domestic currency.² These funds provided the basis for the euro-dollar market, but banks also began to examine how some of these deposits could be attracted for investment at longer term. At this time few marketable bonds were available outside domestic markets: European markets were still recovering from the effects of currency upheavals as a result of the war, and withholding taxes on most European securities were high.

Thus only the U.S. market provided a really large outlet for international investment funds; in 1960 the total of new bond issues (domestic as well as foreign) on that market was more than double the combined total for all Continental markets. Foreign governments and international institutions were among those borrowing in the United States. Their issues found special favour amongst overseas investors, whose ties with the borrowers were often closer than those of U.S. investors; issues in New York by certain European countries were, to a large extent, subscribed by residents of those countries. It has been estimated that by the early 1960s up to 75% of foreign issues in New York

¹ An earlier article on "International investment: the role of security markets" appeared in the June 1963 *Bulletin*.

² The development of the euro-dollar market was described in an article on "U.K. banks' external liabilities and claims in foreign currencies" in the June 1964 *Bulletin*.

were subscribed from outside the United States, and in particular from Europe.

It was clear that a large volume of investment funds was available in Europe, provided an acceptable form of security could be found to tap the supply. Issues organised in the same way as New York bond issues were felt to have the best chance of success; that is to say, through direct placings by syndicates of banks managing the issues, rather than by the usual U.K. systems of public offer for subscription or of placings by brokers. In consequence, many U.K. merchant banks decided to adapt their new issue procedures. But whatever the location of the bank, the ability of any one institution to place an issue was fairly limited and international syndicates were usually set up in Europe to tap as wide a group of investors as possible. The banks participating in these syndicates benefited from the publicity given to this new field of activity. The bonds that were offered internationally, and not primarily to the nationals of the country in whose currency they were denominated, came to be known as 'euro-bonds'. For the most part issues were denominated in dollars, although the late 1950s and early 1960s also saw the first non-domestic issues denominated in deutschemarks and, in 1961, an issue of bonds denominated in 'European units of account' was made.¹

At the start of the 1960s these changing techniques were not enough in themselves to attract more of the business of international bond issues to Europe. Between 1960 and 1962, for example, the total of international long-term bond issues floated on the Continent amounted only to about \$300 million a year.² However, these markets began to expand very rapidly from 1963 onwards, and the total had risen to over \$1,200 million by 1965 (see Table A, which also includes comparatively small overseas sterling issues in London). Within these totals, the volume of international issues – that is, issues floated simultaneously in several countries – was the dynamic element; foreign issues – those floated in a single country by a foreign borrower – actually fell. The distinction between foreign issues in a single market and more widely syndicated international issues has an important bearing on the relevant interest rates. With foreign issues, rates tend to reflect the interest rate structure and market conditions of the country where the issue is made. With international issues, however, the institutions have access to funds which are freer of local restrictions and are more ready to move across national frontiers; as a result, it is factors affecting the *currency* in which the issue is denominated, including key international interest rates, that are more important, together with differences in taxation arrangements as between one centre and another.

The development of markets from 1963

The most important stimulus to international issues from 1963 onwards was the effective closure of the New York

¹ Units of account are defined in the section on "Individual markets for new issues" below.

² Excluding the bonds of international financial institutions placed with central banks.

market to borrowers in most of the developed countries. This occurred in July 1963 when, for balance of payments reasons, the U.S. administration proposed the introduction of an 'interest equalisation tax' (I.E.T.) designed to reduce the return to U.S. residents on most foreign bonds, whether issued on the New York market or abroad. New issues of Canadian securities on the U.S. market were exempted from the tax under an agreement between the two countries covering capital movements, and securities issued by less developed countries were also exempted. In most other cases, however, this move in effect raised the interest costs of borrowing by foreigners on the New York market by about 1% per annum, and encouraged them to turn to European markets and other sources of funds. The total of issues subject to the I.E.T. fell from \$569 million in 1963 to only \$26 million in 1964. This gap was quickly filled by internationally syndicated issues, the volume of which rose from \$137 million in 1963 to \$696 million in 1964. U.K. merchant banks and issuing houses played an important intermediary role in this growth, actively encouraged by the U.K. monetary authorities. In October 1962 the then Governor of the Bank of England said that the time had come when "the City once again might well provide an international capital market" and mentioned a number of areas where help could be given. In the 1963 Finance Act the rate of stamp duty on security transfers was reduced from 2% to 1%; and from 1st August of that year the issue of bonds in bearer form was once more allowed.

Internationally syndicated issues were also stimulated by measures taken in various Continental countries which discouraged foreign investment through national markets. In 1963 Belgium changed its withholding tax arrangements in order to reduce tax evasion on interest paid there. In 1964 Switzerland introduced a virtual ban on the payment of interest on non-resident deposits with Swiss banks in the domestic currency, and imposed severe restrictions on non-resident investment in Swiss franc denominated securities. In the same year the West German Government announced that a withholding tax of 25% was to be imposed in 1965 on interest payable to non-residents on holdings of certain domestic securities.

Another major stimulus to the issue of international bonds came in the summer of 1965, when the United States introduced 'guidelines' on outward direct investment, encouraging large U.S. corporations to finance part of their investment abroad from external sources. The effect was immediate; during the remainder of 1965 U.S. corporations borrowed some \$340 million against issues of bonds by their subsidiaries in Europe. It is doubtful whether these U.S. demands prevented other borrowers from borrowing in the market in that year or in 1966-67. Indeed, the available evidence suggests that over this period as a whole the market expanded to provide facilities for all eligible borrowers. The impact of U.S. borrowing at this time may, however, have been lessened by the virtual absence from the market of Japanese concerns, which had been heavy borrowers during 1963-64.

Nevertheless, there were periods when the new issue market for longer-term (10-15-year) dollar bonds became

temporarily saturated and shorter issues became more popular. At the same time the subsidiaries of some U.S. corporations turned to issuing bonds carrying an option, which the holder could exercise after a stated period, to convert into the equity of the parent corporation. This was a response to the rising interest charges on U.S. dollar bond issues in Europe, which reflected not only the weight of U.S. borrowing in 1965-66, but also an increase in domestic bond yields in Western Germany as a result of severe monetary restraint in that country. The coupon for convertible bonds was significantly lower than on ordinary bonds: whereas the rate for a U.S. borrower against 15-year straight bonds at that time was somewhat over 6%, convertible bonds were issued at slightly under 4½%. Convertible euro-bonds had already been issued by borrowers from other countries, but not with such a differential.

Perhaps the most notable phase of the euro-bond market's development began in 1968, when the U.S. 'guidelines' were made more restrictive and remittances to finance direct investment in continental Europe were prohibited. These measures caused a massive increase in borrowing by the European subsidiaries of U.S. corporations, and for a few months other borrowers were virtually excluded from the dollar bond market. U.S. borrowing in 1968 was predominantly against convertible bonds which, with prices on the New York stock market rising for most of the year, were very popular with investors; out of total U.S. borrowing in Europe of some \$2,230 million, three quarters took this form. These heavy demands on the dollar bond market came at a time when the West German authorities were fostering their own capital market, after the severe monetary squeeze of 1965-66. A very heavy current account surplus and large short-term capital receipts made it desirable to increase the outflow of long-term capital. With U.S. corporations dominating the dollar market, and deutschemark borrowing very much cheaper, the West German market became much more attractive both to foreign governments and public bodies and to private corporations. Total deutschemark bond issues expanded from less than the equivalent of \$200 million in 1967 to about \$1,320 million in 1968. As issues in other currencies, particularly Swiss francs, were also expanding, other borrowers, as well as U.S. corporations were able to obtain a considerably greater volume of funds than in 1967.

Table A

Currencies borrowed on foreign and international bond issues: 1963-69

U.S. \$ millions

	1963	1964	1965	1966	1967	1968	1969
U.S. dollars	81	530	639	868	1,666	2,458	1,730
Deutschemarks	40	269	325	326	193	1,319	1,681
Swiss francs	185	94	88	105	157	331	298
Sterling ^a	143	67	63	56	102	36	66
Units of account	43	10	—	74	19	57	60
Other (including currency options)	72	66	183	210	151	197	88
Total	564	1,036	1,298	1,639	2,288	4,398	3,923

Source: Bank for International Settlements.

^a Including issues by sterling area countries.

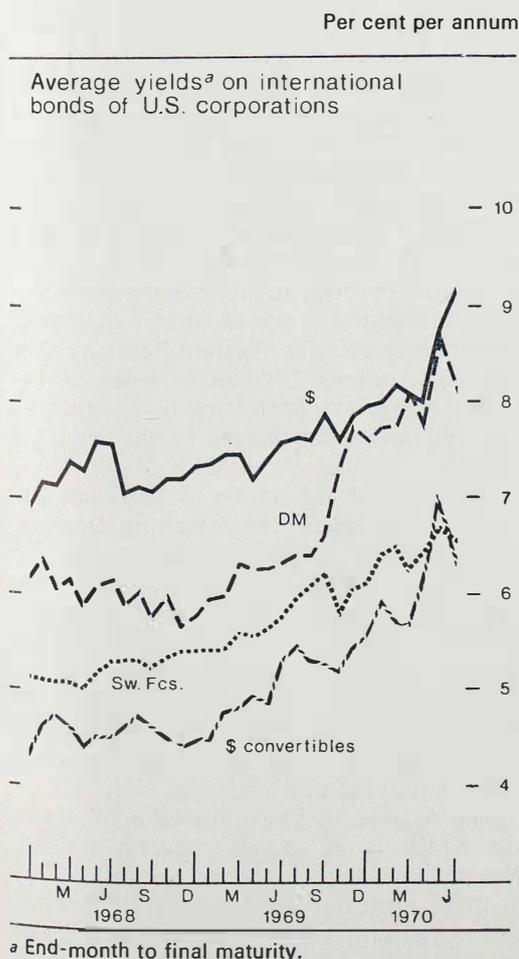
The emergence of a sizable volume of issues denominated in currencies other than the dollar represented an important extension in the potential capacity of the market. In 1968, international dollar issues amounting to nearly \$2,460 million were nearly twice as large as deutschemark issues; but in 1969, both types of issue were of roughly equal size – some \$1,700 million – the volume of dollar issues having fallen below the 1968 figure.

There were some obvious causes of this growth of issues in currencies other than the dollar. As already mentioned, the expansion of deutschemark issues in 1968 was officially encouraged as part of a general policy of establishing Western Germany as an exporter of long-term capital. The trend continued in 1969, and the Frankfurt market had to be carefully regulated in order to maintain the very large volume of foreign issues without congestion. The temporary shift from the dollar towards the deutschemark for international issues was furthered in 1969 by the relatively high cost of dollars in European markets, a direct consequence of the restrictive monetary policy pursued throughout that year by the U.S. authorities.

The growth of deutschemark borrowing occurred despite the never very distant prospect of a revaluation of that currency during the period from the final quarter of 1968 to the third quarter of 1969. The cost of borrowing deutschemarks was, however, appreciably lower than that of borrowing dollars; for example, yields on U.S. corporate bond issues denominated in deutschemarks averaged a little over 6% at that time, whereas similar dollar-denominated issues were nearer 7½%. The differential may thus have appeared large enough to offset the likely additional costs of service and redemption resulting from revaluation.

Since the last quarter of 1969, restrictive monetary policies in a number of major countries have reduced the amount of funds available for new international issues. Interest rates on euro-bonds denominated in different currencies have tended not only to rise, but also to come closer together as exchange parities have appeared more stable and borrowers have sought to place their issues in the market which offered the most advantageous terms. In this period, the dollar has again become the main currency borrowed. This is partly because deutschemarks were in short supply after the revaluation last October and partly because of a fall in yields on convertible issues as compared with straight bonds in the first quarter of 1970. However, prices of convertible issues fell in the second quarter in response to the widespread falls in equity prices on practically all stock exchanges, and the volume of issues dwindled.

It is evident that, since 1968, domestic monetary conditions have played an increasingly important role in the international bond market. To some extent the market has already become a means of reducing differences between monetary conditions in different centres. As the market is diversified further and techniques improve, this tendency may become stronger – assuming that there is no more official intervention than at present. Although this influence is smaller in the capital market than in the euro-dollar market, the implications for national monetary authorities are similar.



Individual markets for new issues

The characteristics of an international capital market are seen most clearly in the market for *U.S. dollar* bonds. Issues are denominated in a currency which is widely used internationally and are made through syndicates of issuing houses comprising banks in several countries. The bonds are thus usually sold to a broad range of investors, with most of the larger banks in the main West European countries placing bonds not only with residents of their own country (in so far as local exchange control regulations permit¹) but also with investors from other parts of the world.

The rapidly expanding amount of *deutschem* borrowing in recent years has generally taken the form of international issues, arranged through syndicates in which West German banks have played an important part. But there have also been some foreign issues on the West German market, without the participation of foreign banks. There are no formal controls on such issues, but a Central Capital Market Committee, composed of the leading banks concerned with new issues, keeps in close contact with the authorities and maintains an informal queue and rationing system. Even in the case of these foreign issues on the domestic market, however, by no means all the funds raised have been of West German origin. During 1964 and 1965 particularly, the major part of the subscriptions to foreign issues came from outside Western Germany, although some of this money is thought to have been West German-owned; and it has been estimated that, since late 1967, something of the order of a quarter of subscriptions to new foreign issues in Western Germany have come from non-resident sources. Individual issues on the West German market have usually been large by Continental standards; during 1967 and 1968 issues in the range of DM 200–400 million (approximately £20–£40 million) were not uncommon. Between the spring of 1969 and the revaluation of the *deutschem* in the following October, market conditions necessitated smaller issues, often not in excess of DM 150 million (about £15 million). After the revaluation a massive outflow of capital led the Central Capital Market Committee to ration foreign issues quite severely, and in December the shortage of liquidity became so great that foreign issues were suspended altogether. The market was reopened to such issues in March 1970, again under a system of rationing, and a lengthy queue has formed despite the prevailing high cost of borrowing.

Foreign issues denominated in *Swiss francs* continue to be made through consortia of Swiss banking houses, without the assistance of banks in other countries. This situation has been helped by the large volume of foreign-owned funds held with, and often managed by, Swiss houses. Foreign issues on the Swiss market are regulated by the Swiss authorities, both as to size and timing, in order to avoid undue pressure on domestic interest rates, which are still comparatively low. Individual foreign issues are generally not allowed to exceed Sw.fcs. 60 million

¹ In the United Kingdom the exchange control rules applicable to foreign security transactions apply to euro-bonds, regardless of whether or not U.K. issuing houses act as managers or participants in selling groups.

(£6 million). Furthermore, there is a queue of potential issues; access is restricted to high-class borrowers, and usually involves a wait of around two years. A substantial volume of foreign funds managed by Swiss banks is also invested in higher yielding securities outside Switzerland, but the use of the Swiss franc in international capital market operations to which the Swiss are not a party is discouraged.

When speculative funds flowed from Western Germany into the Netherlands after the revaluation of the deutschemark, an accumulation of *guilders* in the hands of non-residents provided scope for floating a number of small international issues, the first for several years. This Netherlands market has since continued to operate on a fairly small scale; the borrowers are generally companies with interests in the Netherlands, and subscription to the issues – which are limited to a five-year term – is restricted to non-residents.

Another new issue market on the Continent is that for bonds denominated in '*European units of account*'.¹ These issues have been chiefly sponsored from Brussels and Luxembourg, with the secondary market centred on Luxembourg. Investors in other countries have shown increasing interest in such bonds in recent years, but their subscriptions are nevertheless believed to have been small. During 1966–69, there were on average some five unit of account issues a year; two of these were for the equivalent of \$20 million but the average amount raised was nearer \$10 million. The device of units of account is designed to protect both borrowers and lenders from the effects of unilateral changes in the official parities of the constituent currencies other than their own. But borrowers who had to meet interest charges in deutschemarks during the period from 30th September to 24th October 1969, when the Bundesbank withdrew from the foreign exchange market, were faced with an unexpected cost. Under the terms of issue, bondholders were entitled to receive interest in deutschemarks at the then existing official parity, but the borrowers had to purchase the currency at higher market rates. Unit of account issues, already of limited appeal, are unlikely to have benefited from these admittedly unusual circumstances.

Unlike the expansion which has taken place in some of the Continental markets, overseas *sterling* issues in London have been small and relatively stable in recent years. Since 1945, such borrowing has been mainly confined to sterling area countries, although some other overseas borrowers have occasionally been allowed to make issues. Thus both the International Bank for Reconstruction and Development and the Inter-American Development Bank have raised funds on the London market; and, in March 1963, countries of the European Free Trade Area were given easier access. Since 1965, however, the amount of overseas *sterling* borrowing on the London market has been further restricted, mainly

¹ These are issues whose value is fixed in relation to the gold values of the seventeen currencies of the European Payments Union. The value of the unit is currently equal to U.S. \$1 and, in the latest formula, can change only if all the seventeen 'reference' currencies change their gold par value, and at least two thirds of these movements are in the same direction. The unit then alters its value by the amount of the smallest change, from the base date, of those two thirds or more which moved in the same direction.

because of balance of payments difficulties. But although the scope for sterling borrowing is severely limited, U.K. financial institutions have played an increasingly active role in the placing of new international issues denominated in other currencies, and handle around 15% of the total of such business.¹

Market techniques and trading

As already explained, the technique of making issues through international consortia differs from that of public issues – to which members of the public are invited to subscribe direct, and underwriters are left to take up whatever is left unsubscribed – and have more in common with private placings. The managing bank or banks invite a large number of other banks and financial institutions, both in their own country and abroad, to take up a part of an issue and place it with their customers at the issue price. A group of underwriters, often including the managing houses, is formed as well, and normally takes part in the selling operations. But by no means all members of the selling group act as underwriters, and underwriting and placing are two distinct functions. The business of placing earns members of the selling group a commission, normally of 1½%, out of which ½% is, where appropriate, re-allocated to recognised security dealers. In addition, the managing banks generally charge a commission of ½%, and a further ½% is usually charged for underwriting the issue. Apart from a brief press announcement which may be made prior to an issue, publicity tends to take the form of a subsequent notice in a number of internationally read newspapers and periodicals to the effect that the bonds concerned have been sold, and listing the names of the managing houses and underwriters.

Sources and uses of capital raised

It is not possible to reach accurate conclusions about the sources and uses of capital raised by foreign and international issues in Europe, because of the absence of information as to the actual ownership of funds subscribed and the countries in which the capital is used. In many countries institutional investors are prohibited from holding bonds denominated in currencies other than their own, and cannot take up issues by non-residents. But an appreciable number of nominee holdings, unit trusts and investment funds are operated internationally and have invested on an increasing scale in international bonds. The growth of such operations in recent years has been so extensive that an analysis by country of residence of the selling banks, even if obtained, could give a misleading picture of the country of ownership of capital subscribed. It is known that some large pension funds have at times been important subscribers to issues, particularly to those of convertible bonds, but the majority of investors are probably private individuals.

¹ Figures of international issues in London are given in Table 14 of the statistical annex.

As to the employment of the capital raised on bond issues, most European borrowers probably convert the foreign exchange proceeds of their issues into domestic currency, and use it to finance domestic investment. Much of the money borrowed in Europe by U.S. corporations is, however, believed to be spent in Europe eventually, although in many cases the funds may first be employed in the euro-dollar market for a time. But these corporations may also use part of the money they borrow to finance purchases of equipment from the United States; and part may also be used to finance investment in other areas of the world, especially when the borrowers are international groups such as oil companies.

Table B

Foreign and international bond issues, 1963-69: country of borrower

U.S. \$ millions	1963	1964	1965	1966	1967	1968	1969
United States	9	—	341	629	598	2,232	1,255
United Kingdom	16	15	48	52	74	149	284
Japan	59	199	35	—	—	194	246
Canada	—	—	—	—	—	101	308
Western Europe	247	493	535	516	945	855	1,231
International institutions	73	224	198	284	234	445	291
Rest of the world	160	105	141	144	437	417	308
Total	564	1,036	1,298	1,639	2,288	4,398	3,923

Source: Bank for International Settlements.

Borrowers have to be well-known before an international syndicate will consider undertaking an issue on their behalf. Access to European markets has, however, by no means been confined to borrowers in North America and Western Europe. As Table B shows, there has been a significant increase in issues by other countries since 1963. What is more, international financial institutions and regional development banks have borrowed substantial amounts over the years to lend to less-developed countries. These institutions are often able to raise the money at rates of interest below those which the countries themselves would have to pay if they were able to borrow in their own names.

U.K. borrowing

Table B shows that, in spite of the active role which U.K. financial institutions have played in the euro-bond market, U.K. borrowers have not so far made much use of it. Between 1963 and 1967 only a few issues were floated, averaging about \$40 million a year over the period (although the figure had reached \$74 million by 1967). In 1968, a number of U.K. companies made issues denominated in U.S. dollars, deutschemarks and units of account, and the total increased appreciably, to \$149 million. However, the amount borrowed by companies in these markets fell away in 1969; and they

made only a few issues in the first half of this year, including some medium-term credit arrangements through banks.

On 2nd February 1969, the Government announced that those nationalised industries which had the power to borrow abroad at medium and long term would be encouraged to do so, and that they would be offered special arrangements to relieve them of the foreign exchange risk involved in such borrowing for capital expenditure in this country. In April 1969, these arrangements were extended to local authorities having the necessary statutory powers. It was hoped that such borrowing would significantly benefit the U.K. reserves, and the equivalent of about £80 million was in fact raised during last year (not all of which, however, was covered by the special arrangements). The details of this borrowing can be summarised as follows:

Month	Borrower	Currency and amount (in millions)	
1969 March	Gas Council	DM 300	Public issue DM 200; private placing DM 100
April	B.E.A. B.O.A.C.	Sw.fcs. 70 Sw.fcs. 30	Private placing Prior to floating an issue of Sw.fcs. 50
August	South of Scotland Electricity Board	DM 60	Medium-term bank loan
	Derbyshire County Council	DM 50	Medium-term bank loan
September	Electricity Council	DM 200	Public issue DM 150; private placing DM 50
December	North of Scotland Hydro-Electricity Board	\$8 (equiv.)	In units of account

During the first half of 1970, however, borrowing costs in international capital markets rose sharply, and were generally above those prevailing in the United Kingdom for the public sector. Faced also with rationing systems and lengthening queues of potential borrowers, the nationalised industries and local authorities did not raise further amounts of capital abroad during this period.

The secondary market

A prerequisite to the further growth of the international capital market is the development of a healthy secondary market in which existing bonds can be traded. The geographical spread of the market is an obvious difficulty, in spite of modern communications; for example, dollar bonds might be quoted on the New York, London or Luxembourg stock exchanges, or a combination of these, and deutsche-mark bonds on one or more of the West German exchanges. This has meant that the principal traders have had to act as jobbers, holding bonds on their own account and quoting prices at which they will buy for their portfolio or sell from it. During 1969, however, jobbing became less popular, because the general decline in international bond and

equity prices brought large book losses on these portfolios. As a result, the tendency now is for brokers to arrange transactions by bringing buyer and seller together.

The other main difficulty arising from the geographic spread of the secondary market has been the problem of delivering bonds. From the outset international bonds have been bearer documents, and all transactions have therefore required physical delivery of the bonds. The growth in secondary market transactions made this a considerable problem; because of the volume of business in 1968, for example, it could take up to three months for bonds to be delivered after they had been bought. Several schemes for clearing systems have been proposed, but only one, 'Euroclear', has so far become operational. This system began in December 1968 and provides a central system for settling deals, regardless of the location of buyer and seller. When both are participants in the system, a transaction can be completed merely by book-keeping entries. If one party to the transaction is not a participant in the clearing system, securities can be delivered into or from the system through any one of eleven depositories. The need for physical transfer of bonds is therefore cut to a minimum.

During 1969 deliveries were speeded up, partly because of 'Euroclear', but more importantly because unfavourable market conditions reduced the volume of transactions. Rules of procedure in case of late delivery have been devised by the newly-founded Association of International Bond Dealers (A.I.B.D.). Nevertheless, the market is still concerned about the settlement machinery when a recovery in market conditions brings more transactions. Further improvements which have been suggested include a stronger role for the A.I.B.D. Another proposed clearing house, 'CEDEL', situated in Luxembourg but owned by a large number of banks and brokers in several countries, is aiming to begin operations on 1st January 1971.

Diversification

The basic structure of the international capital market has been strengthened by the improvement of the secondary market techniques already mentioned. But new ways have also been sought to accommodate varying demands for capital and to attract a larger volume of funds into the market. Perhaps the most important are the steps taken to establish an international equity market. As mentioned earlier, issues with an option to convert into an equity were first made in 1965. More recently, the equity link has sometimes taken the form of a warrant attached to the bond which, when detached and presented, enables the holder to purchase equity at a predetermined price. During 1969 several conventional share issues were made through international syndicates, although such issues have been more difficult so far this year because of the weakness of the major stock markets. This set-back seems likely to be temporary; as international share issues offer the possibility of preserving values in real terms and, perhaps, of large capital gains,

they are an ideal medium of investment for off-shore mutual funds, from which it is thought much of the demand for them has come.⁷ The market should also benefit considerably from the adaptation of depositary receipts to its needs. These instruments are issued by a depositary (a bank or brokerage house) in whose name the share is registered; the depositary also services the share, paying dividends on lodgment of coupons which are attached to the receipt. The introduction of these instruments in international issues is intended to increase the marketability of shares by providing a readily transferable bearer document. There is a possibility that 'Euroclear' and 'CEDEL', the euro-bond clearing houses already mentioned, will handle transactions in such receipts. As in other sectors of the market, the emergence of international equity issues could link national share markets more closely together.

There have also been developments affecting medium-term credit. As such credit ranges between three and ten years, it bridges the gap between the short-term (euro-currency) and long-term (euro-bond) markets, and tends to blur the distinction between them. Medium-term financing operations have become very numerous since 1967, in the forms both of bank loans and promissory notes. (The notes have sometimes been marketable.) These credits have usually been denominated in U.S. dollars or – until the West German revaluation last year – in deutschemarks; more recently, Netherlands guilders have also been used. Because medium-term funds in large amounts have become scarce, dollar credits often make use of euro-dollar funds borrowed at shorter term. When this happens, the credit arrangements include a provision for the interest rate to be renegotiated periodically, and to fluctuate according to the cost of borrowing the euro-dollars. Loans expressed in deutschemarks and guilders, on the other hand, more usually have a constant interest rate, and in this respect resemble longer-term euro-bond issues. As it has developed so far, therefore, the medium-term sector of the international market combines features of both the euro-currency and euro-bond markets.

Finally, the terms of euro-bond issues themselves have tended to become more flexible. This has resulted directly from the recent very difficult bond market conditions, and from reduced confidence in the ability of even major U.S. corporations to adjust to a less expansionary economic climate. In view of these difficulties, new techniques have been evolved to meet the changing needs of borrowers and lenders. In May 1970 the first securities with a variable coupon were issued; these are commonly termed 'floating rate' notes, and a number have been successfully issued. The coupon is fixed every six months by reference to the six months' euro-dollar inter-bank rate in London, thus periodically bringing interest rates on these medium-term securities into line with current short-term rates. From the investor's point of view, this has the merit of reducing the risk of capital losses from falling prices. Recent events have also made investors more conscious of the risks involved in

⁷ Off-shore mutual funds are financial institutions which are registered in countries offering tax concessions and a minimum of restriction on financial transfers, and which accept investors' funds for collective investment.

the customary unsecured euro-bond issue, and there has been a move towards forms of secured debentures. In July, a public issue incorporated a prior claim on particular assets owned by the parent company of the borrower, in the event of default on the issue. An instrument under consideration at the present time is the Equipment Trust Certificate, where bond holders have prior claim to the equipment purchased with the proceeds of the bond issues. The acceptability of this instrument has yet to be tested.

Conclusions

Over recent years the euro-bond market has clearly proved effective in attracting capital from all parts of the world and channelling it at long term for investment in a wide range of countries. Moreover, the efficiency of the market has enabled many borrowers to tap scarce capital, generally at a cost in interest terms which is modest compared with that of alternative sources. In these ways the euro-bond market has supplemented traditional methods of raising long-term finance. The market's willingness to improve old techniques and to introduce new ones as the situation requires seems likely to ensure its survival.

The market has ridden out the unsettled international financial conditions of recent years without serious repercussions. Under more stable conditions it may reduce disparities between national markets in the demand for and supply of capital. The greater influence of monetary conditions in one national system upon those in another can undoubtedly pose problems for the separate authorities involved, but it should also strengthen existing tendencies towards greater co-operation in the monetary sphere. For the foreseeable future, the international demand for long-term capital seems likely to grow rather than diminish. The international capital markets of Europe could ease the task of mobilising the capital required to sustain economic progress throughout the world.

CORRECTIONS

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The work of the Cashier's Department

Page 294 Last paragraph, first line, for 1957 *read* 1964

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Page 303 Table B, Western Europe: 1966, 516 *should read* 531; and 1968, 855 *should read* 860

U.K. external assets and liabilities: end-1969

Page 316 Footnote *c* applies to the figure of 179 quoted as the gold subscription to the I.M.F. in 1962

Page 317 Total of identified external liabilities 1967, 18,490 *should read* 18,400