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International Banking Credits in the East Asia Region

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International Banking Credits in the East Asia Region

I. Introduction and Summary

Following completion of an introductory study on the extension of banking credits to developing countries^{1/} it was decided to attempt an analysis of how selected individual countries in the developing world might be affected by extensive reliance on international banking facilities. In late 1973, a staff team^{2/} visited five countries in the East Asia region, viz., Japan, Singapore, Indonesia, the Philippines and Korea, to explore some of the issues for economic management raised by foreign banking credits in the last three countries. The role played by Japan as a source of capital and the development of Singapore as a funding center were also reviewed and information collected at the time of the visit to these countries is contained in Appendices 1 and 2 of this paper.

The study examines banking credits raised in euro-currency or "off-shore" money and capital markets as well as "inshore" markets.^{3/} While there is no implication that traditional facilities are necessarily funded inshore and newer credit types are financed offshore, the expansion and diversification of facilities offered by banks to countries in the region are associated in time with the growth of the euro-currency market. After describing the various types of banking credits, their evolution, modalities, sources and uses, three policy issues arising out of their extensive use are examined, viz., (1) the constraints on the pursuit of monetary policy; (2) the management of external debt; and (3) the management of foreign exchange reserves; the use of longer-term credit commitments as a "second line of reserves" is illustrated by the experience of one country in the region. Because of the relative novelty of the experience of developing countries in using banking credits extensively, and their differing circumstances, no attempt is made to determine the relative costs and benefits of increased reliance on the credits or to evaluate the appropriateness of policy measures adopted by the countries concerned to minimize adverse effects.

Traditional capital-importing countries in the East Asia region have been confronted with a rather sudden shift of concerns. They are forced to differentiate among several types of capital flow and to devise instruments of policy for discouraging certain types without damaging their

^{1/} Mohammed and Saccomanni, "Short-term Banking and Euro-Currency Credits to Developing Countries," (Staff Papers, November 1973).

^{2/} The staff team comprised Messrs. Azizali Mohammed (ETR, at time of visit), Augustus W. Hooke (Asian) and Peter Engström (ETR).

^{3/} The terms "euro" and "offshore" are used interchangeably to designate transactions taking place in currency other than the currency of the country where the lending takes place; "inshore" transactions are denominated in the currency of the country from where the lending occurs.

attractiveness to other lenders or investors. The systematic use of forward exchange market intervention is precluded by lack of developed facilities and wider exchange rate margins or nonobservance of margins as a means of insulating monetary policy are ruled out in countries of the region (with the exception of Singapore) by the firm preference for a fixed relationship with the intervention currency (the U.S. dollar in most cases). Policy responses available for dealing with monetary policy questions range from enforcement of comprehensive exchange controls through restrictions on banks to "bardepot" type market oriented regulations.

In the area of external debt management, the authorities face trade-off decisions between an increased debt servicing risk because of the floating interest rate feature of euro-credits and a reduction of exchange risk implicit in their multicurrency options. There is another trade-off between the shorter maturities of banking credits and the relative ease of using them to substitute for other types of credits. Banking credits do not as yet constitute a substantial enough fraction of total indebtedness to create specific problems, but it is recognized by the authorities that improved reporting arrangements are essential for effective management of potential problems.

As for the management of reserves, there is a tendency to use banking facilities to build up gross reserves and to acquire "second line" reserves in order to release resources for domestic investment which would otherwise have been tied down as reserves. The interaction between reserve levels, creditworthiness and external debt is a complex one, but is generally perceived as providing the countries with larger policy options than they had previously. In fact, in each of the policy areas surveyed, it was concluded that access to a truly international credit and capital market has confronted the developing countries surveyed with many of the same problems that developed countries have dealt with at the same time that it has enlarged their options.

Since the staff team visit in the autumn of 1973, changes have taken place, both with respect to institutional aspects and policy issues, as a direct or indirect result of the sharp changes in petroleum and other commodity prices. The paper is restricted to the situation in late 1973 and to policy issues that were under discussion at that time.

II. Types, Modalities and Uses

1. Evolution of facilities

In the postwar period through the mid-1960s, credits through banking channels to developing countries in the region were primarily trade related. The business was handled by banks located in major financial centers and working through branch networks which were often more active than the indigenous banking systems of these countries, especially in the financing of imports. Given the self-liquidating character of transactions associated

with trade and the fact that credits were frequently extended to firms substantially owned by expatriate communities with intimate ties to the metropolitan centers, there were few issues of concern either on the lending side or in the borrowing countries. The funds revolved almost automatically, their outstanding levels fluctuating with the levels of trade.

The rapid growth of public and indigenous private investment programs caused a sharp increase in the demand for working and fixed capital in the region. This was met in the first instance through bilateral aid programs, the extension of medium-term and longer-term export credits and by the international financial institutions. The international divisions of major U.S. and British banks began to take participations in loans extended by the international institutions and were prepared, with financial guarantees provided by their export credit insurance agencies, to extend financial or buyers' credits (see 2 below).

It was not until the late Sixties, however, that foreign banks began to expand and diversify the services offered to countries of the region without official support of any kind. Several factors contributed to this. As large corporations expanded their multinational operations in the region, banks tended to follow them with supporting services. A growing involvement of Japanese banks, for instance, grew directly out of the national interest in securing supplies of raw materials and fuels and promoting exports. This coincided with a phase of massive balance of payments surpluses and declining interest rates which made it profitable for Japanese banks to shift funds to overseas markets. Better economic management led to the relaxation of exchange restrictions or the simplification of exchange controls in some of the developing countries, as in Indonesia and (in the Seventies) the Philippines, or in their more flexible administration, as in Korea and Taiwan. Banks discovered that there were opportunities for profit to be exploited at reasonable levels of political or "sovereign" risk.

Finally, a number of European countries introduced or tightened restrictions on borrowing abroad by their residents, leading the international banks to a more active search for new borrowers in this region as elsewhere. The U.S. banks which have traditionally constituted the largest presence in many countries in this area (notably in Thailand, Taiwan and the Philippines) also found in offshore dollar markets (such as London or Singapore) a way of overcoming the restraints imposed by the Voluntary Foreign Credit Restraint Program of the Federal Reserve and other capital outflow controls. Resort to these offshore markets for funding their operations led the banks to the application of new lending techniques and to different packages of terms (whether in respect of interest rates, repayment schedules or covenants on term loans) than those used when funding in the inshore dollar markets.

2. Classification of banking facilities

a. Lines of credit (imports)

Of the traditional facilities, the correspondent line of credit opened in favor of a local bank by a foreign bank is in use throughout the region, with most domestic banks maintaining a complete network of banking connections for the purpose of facilitating payments to various countries and providing for a full range of reciprocal dealings, including issuing of telegraphic or mail transfers, the drawing of drafts, the issuing and the confirming of letters of credit up to agreed limits, and the forwarding of bills for collection. However, working balances are not widely dispersed but tend to be held with a small minority of correspondent banks in London and New York, or in some cases, with banks in San Francisco. This concentration reflects the use of U.S. dollars and sterling for settlements not only for the trade with the countries issuing these currencies but also for other countries as the U.S. and U.K. banks offer trade financing facilities for third country trade as well. Japan also tended, until quite recently, to rely on these facilities for financing its imports from other countries in the Far East. Lines of credit are used generally for import financing.

b. Export financing

A few countries use their foreign banking connections for financing exports. In the Philippines, for instance, certain industries (metals and lumber) traditionally have their export paper discounted in New York. In Korea, the regulations require advance receipts for the full value of certain items, notably silk and fish, and for up to 50 per cent for certain other items. Export financing is a more complex operation in Indonesia where trading houses located in Singapore help to finance shipments of rubber and other traditional products using bankers' as well as merchants' letters of credit arrangements.^{1/} In the case of timber and petroleum exports, the financing of shipments has at times been handled through intra-company accounts by joint venture owners and by the major oil companies operating as contractors in Indonesia.

c. Commercial and bankers' acceptances

Other types of traditional banking facilities available in the region include the purchase of commercial paper issued by firms in developing countries and the use of bankers' acceptances. The former facility is generally used by enterprises linked through ownership to firms abroad and by major state enterprises engaged in the production and processing of raw materials. An example of the latter is Pertamina, the state-owned Indonesian petroleum company, which has obtained substantial amounts of financing for current operations through issuance of

^{1/} Since 1970 only bankers' letters of credit have been permitted.

short-term commercial paper denominated in U.S. dollars to the contractor who in turn would have discounted the paper abroad. A similar technique has been employed by state commercial banks in Indonesia by selling or discounting to nonresident financial institutions their own claims upon resident enterprises. Pertamina has also been able to extend the maturity of 90-180-day usance credits provided by foreign suppliers with the help of lines of credit from the opening bank under which cash settlements by Pertamina could lag up to one year behind the date of settlement by the opening bank with the supplier. Korea has used bankers' acceptance facilities in New York as a foreign exchange reserve economizing device at certain periods, usually through the drawing by a Korean bank of a refinancing bill on a New York bank with which it has a line of credit and then having this bill discounted in the acceptance market.

d. Placement of deposits

The placement of deposits with correspondents is a less traditional technique for extending banking facilities. In two of the three countries surveyed (the Philippines and Korea) there are special arrangements enabling foreign funds to be placed on deposit with domestic banks (including resident branches of foreign banks). Exchange risk for the depositor is eliminated by permitting the deposits to be denominated in foreign exchange and there is no withholding tax on interest earned on deposits. While there are ceilings on the interest rates that can be paid, these were high enough until about the middle of 1972 to allow the foreign banks making the deposits to earn a margin of at least 3/4 per cent to 1 per cent over the London interbank offer (LIBO) rate.

In Indonesia, there is no special scheme but the state commercial banks were required to pay 15 per cent per annum on rupiah time deposits and this left enough of a profit margin for banks abroad,^{1/} even after paying one half of one per cent charge per month for a "swap" transaction with Bank Indonesia. The actual cost to the domestic banks of the deposits was higher because they paid, on behalf of the foreign bank making the deposit, a withholding tax of 15 per cent; they were also required to maintain a reserve of 30 per cent against such deposits.

e. Term credits with official support

Another form of bank financing in the region is participation in export credit transactions. There are joint transactions with official export credit institutions, such as the Export-Import Banks of the United States and Japan. Secondly, the banks extend buyers' credits

^{1/} Or their nonbank affiliates (e.g., the Edge Act Subsidiaries of U.S. banks) if the domestic bank had reached the ceiling prescribed by Bank Indonesia for borrowing from banks abroad.

under financial guarantee from the official export insurance agencies for individual transactions where the purchase of equipment and services is tied to a national source. Additionally, banks offer officially guaranteed "credit line" arrangements under which a borrower (usually an intermediate lending institution) in the developing country is provided with a fixed amount up to which it can draw for procuring a variety of goods from the lending country of varying transaction value on the basis of uniform credit terms--the approach is innovative in that it does not follow the traditional rules on maturity and downpayment which are related to the unit value of the transaction or the type of commodity financed. Thirdly, the banks take up participations in loans extended by international financial institutions, usually by purchasing promissory notes of the debtor for earlier maturities of, e.g., IBRD loans but without guarantee from the World Bank.

f. Nontraditional banking credits

Although banks have been extending term credits with official guarantees, this has not proved satisfactory because of tied procurement as well as other restrictions deriving from underwriting considerations. After gaining experience with officially supported export credits, banks began to respond with "package" facilities covering all elements of a project, including downpayments, local costs and purchases from a sub-contractor in another country, i.e., elements not generally insured by official export credit guarantee agencies. The availability of funds in offshore markets, not dependent on official guarantees, enabled foreign banks to meet demands for such "packaged" term credits in the region. The modalities and uses of the newer types of credits are described in greater detail in the following two sections.

3. Modalities of nontraditional banking credits

While traditional facilities frequently are based on established procedures for self-liquidating transactions their cost depends on where these are financed by the lending bank. If the funds are raised in the lender's domestic market, the cost of the facilities is related to, if not equivalent to, the rate offered to prime borrowers in that market. If funded in euro-currency markets, the cost is related to the LIBO rate. The recipient bank may not always be aware of where its regular facilities are being funded, the foreign bank switching from domestic funds to offshore markets, depending upon profitability relative to the interest rate for a facility agreed with the correspondent bank. In some instances, a basic portion of the line of credit may be funded at inshore rates, with an overriding arrangement whereby additional amounts are related to offshore rates.

While smaller transactions in the range of US\$1-5 million are usually handled by a single bank (inhouse), lending banks prefer to use syndications for loans of larger amounts. Borrowers in the region

expressed a strong preference for inhouse loans for the reasons that syndication normally involves management fees and increases considerably the difficulties for the borrower to amend the loan agreement, e.g., to extend the deadline for drawing down a loan.

The basic interest rate on euro-credits is the three- or six-month LIBO rate for the currency used for the loan. In addition to this basic rate, which is the cost of funds to the principal lending banks,^{1/} the borrower pays a margin. In the case of loans funded with inshore dollars, the spread is quoted as a margin over the U.S. prime rate. The size of the margin ideally measures the creditworthiness of the borrower and of the country in which the latter is established. However, lenders have until recently had to gradually lower the spreads charged on successive syndications. In each of the three countries surveyed, the spread had declined from over 2 1/2 per cent only a few years ago to about 1 per cent for local banks and other prime borrowers.^{2/}

In many cases the spread reflects the type of guarantee provided by the borrower. A government guarantee normally leads to a lower spread than a guarantee by a local commercial bank. Frequently, the lending banks may lower the spread even for a commercial bank guarantee where the bank is known to have an official affiliation, as in the case of the Korean Exchange Bank. As an aspect of the competitive paring of spreads until the end of 1973, the lending bank was prepared to accept a spread for a loan without official guarantee which it previously applied only to guaranteed loans. The benefit to the borrower is even greater because the official guarantor may levy a charge of 1/2 per cent or more for providing its guarantee.

Among other charges that can occur in connection with euro-credits is a finder's fee or a broker's fee in situations where the borrower arranges the credit through a broker or a finance house rather than directly from a bank. This fee amounts to 1/2 per cent of the amount in the Philippines and is payable at the outset.

The exchange risk is invariably carried by the borrower as interest and amortization payments must be effected in the currency borrowed. From this point of view the six-month rollover period has the advantage to the borrower that he may obtain forward cover for such periods, to the extent that such a facility is available. Frequently, the euro-credits also carry a multicurrency option that can be exercised by the borrower (or the lender) at the time of rollover. This permits the borrower to switch his loan from one currency into another at the

^{1/} Smaller banks in the more recent period have been forced to pay 1/4 per cent to 1 1/2 per cent above the standard LIBO rate.

^{2/} As conditions in the euro-markets began to change during the first half of 1974, this trend was reversed and the spreads began to increase for all types of borrowers.

interest rate prevailing for the respective currency. In periods of exchange rate uncertainty this option may provide some protection to the borrower. In the three borrowing countries surveyed, transactions were denominated in U.S. dollars and forward cover was available. In the Philippines, a multicurrency option was denied to the borrower by authorities. The option was included in most euro-credits to Korean borrowers but never exercised.

Apart from the traditional 180-day line of credit arrangement, banking credits may range from one to twelve years. They are typically drawn as short-term advances, automatically renewable at the end of each six-monthly rate fixation period. The period to final maturity in the countries surveyed lengthened perceptibly in the two or three years ending 1973, but lending banks appeared reluctant to extend maturities further. The average length of loans is, of course, shorter than the period to final maturity and transactions which might appear to run for as long as twelve years to final maturity are often arranged in a way that much the greater part of the loan may be repaid within the first few years, a practice referred to as "front-loading."

Whatever the actual average or final maturity, the document evidencing the borrower's obligation is drawn for a period convenient to the lender. Several U.S. banks indicated preference for operating on the basis of twelve-month promissory notes that were continually rolled over. Japanese banks tended to prefer ninety days, while for most other banks the norm appeared to be six months. Another device, illustrated by a transaction in the Philippines, presumably to avoid withholding tax, is for the borrowing bank to issue a series of certificates of deposit in favor of the lending bank, with each certificate corresponding to a maturity and an amount matching the actual repayment schedule on the loan. The authorities in borrowing countries indicated that whatever the legal form and period of the borrower's obligation, the period to final maturity of the loan was the relevant period, their only concession being to agree to the revision of the interest rate at six-monthly intervals.

The technique of repayment in a lump sum at the end of the maturity period (the so-called "balloon") did not appear to be favored either by the banks as lenders or by the borrowers in the region. It is possible, however, that this might reflect a difference in lending techniques between European banks on the one hand and the American and Japanese banks which account for the bulk of euro-credit lending in the region. Many transactions had amortization schedules allowing for up to three years of grace, as in the Philippines for export-oriented loans.

Prepayment is normally permitted in the loan agreements, although the authorities in the borrowing countries might not permit prepayment without justification. In some euro-credits the borrower is required to pay an additional fee if he exercises his prepayment option. Such penalties were included in certain earlier credits to Indonesian

borrowers, but have not been featured recently. Exchange risk is a factor that enters into the prepayment decision: it induces the borrowing enterprise to prepay where an appreciation of the currency borrowed is apprehended.

The commitment period, i.e., the period from the effective date of the loan agreement to the time when the full amount of the credit has to be drawn down, varies in length from six to twelve months. During this period the borrower typically pays a commitment fee on the undrawn balance at 1/2 per cent per annum. The drawdown period can be extended by mutual consent and during the phase of high interest rates in 1973 extensions were negotiated in anticipation of a fall in rates.

4. Uses of nontraditional banking credits

The users of the banking facilities in the East Asia region are commercial banks, domestic as well as branches of foreign banks, other intermediary financial institutions, governments and their agencies, including central banks, and large private corporations and state enterprises.

a. Commercial banks

The commercial banks have increasingly used the newer types of banking credits for purposes not directly related to trade. This bank intermediation ranges from merely serving as a conduit for funds arranged abroad for specific projects, to performing onlending at varying maturities and in varying amounts, not necessarily related to the maturities or amounts of the foreign credits obtained. The size of the project is usually a principal factor as in Indonesia with respect to major construction projects or the transaction may be for a period longer than is regarded as safe as in the Philippines. Domestic onlending of foreign funds may also be in the nature of bridging finance as in Indonesia, where the Central Bank operates a special medium-term loan scheme at subsidized interest rates but access to which may entail waiting for approval.

The use of foreign funds to finance domestic expenditure creates an exchange risk and a general feature of onlending is that the commercial banks either pass on the exchange risk to the customers by denominating the onlending in foreign currency or insure themselves against the exchange risk by utilizing forward cover or swap facilities provided by the monetary authorities. In the latter case the cost of forward or swap cover is passed on to the domestic customers.

Bank Indonesia provides an unlimited swap facility, the cost of which is 1/2 per cent per month for a maximum of six months. As a result of this relatively high cost, most domestic onlending is denominated in foreign currencies. In the Philippines, on the other hand, the Central Bank provides a limited swap facility at a low

cost, 1/2 per cent per annum for swaps of one year or shorter, and 1 per cent per annum for swaps of longer maturities. Such swaps are provided only for specified transactions. In Korea, domestic banks onlend in the foreign currencies borrowed by them; the foreign bank branches have access to a limited swap facility, provided that they use 75 per cent of the funds swapped for pre-export financing at a low interest rate, while the remaining funds can be onlent for general purposes at higher interest rates.

b. Investment and development banks

The investment and development banks in the region appear hesitant to base their lending on foreign banking credits. Some of them have been established with support from the World Bank Group and have raised a series of fixed interest rate loans from the Group and from the Asian Development Bank. They considered the floating interest rate feature of euro-credits undesirable because it adds a risk variable to the decision-making process of small enterprises already beset with many other uncertainties. One development banker considered it possible to onlend at fixed interest rates, while funding at variable interest rates, by setting the rates for onlending high enough to avoid losses to the development bank over time. Another pointed to the exchange risk on loans from the international development financing institutions that might, under certain conditions, offset the advantage of the fixed interest to the ultimate borrower. The development banks in Korea and the Philippines have raised substantial amounts of euro-credits at relatively low margins in 1972-73.

c. Government entities

Government borrowings from foreign banks are difficult to identify according to use because of the fungibility of public resources. This is particularly the case where borrowing for general balance of payments purposes is effected directly by the government or on its behalf by the central bank or another government agency or official bank. A rationale for undertaking this type of borrowing in two out of the three countries surveyed was to increase foreign exchange reserves. A foreign banking credit can also be switched into local currency to meet domestic payment obligations so that it becomes equivalent to general budgetary support. The line between this and the previous use cannot always be clearly drawn.^{1/}

d. Corporations and state enterprises

Large private corporations and state enterprises in developing countries appear to use euro-credits primarily for the financing of investment projects, not infrequently to supplement export credits or to cover the loan component of direct foreign investment or joint

^{1/} See DM/74/82 (August 21, 1974) on "Credit Substitution in Euro-Currency Markets by Developing Countries."

ventures. The area most attractive to foreign investors/lenders in the East Asia region is raw material extraction and processing, particularly petroleum and related projects such as liquefied natural gas. Such projects require substantial capital for which syndicated bank credits have served as an alternative to, or a supplement to, officially supported capital.

III. Sources and Funding

The active banks in the area are American and European, with Japanese commercial banks operating as substantial lenders during certain periods. The major sources of funds for lending operations have been the inshore money markets in the United States and Europe. However, the offshore markets with their extensions, such as the Asian-dollar market in Singapore, have become increasingly important sources of funds. In addition, branches of foreign banks, to the extent that they are permitted access to the local deposit base, draw on the local money markets as a source for their lending operations in the region.

However, both the sources of funds and their final destination are difficult to trace in the region because of the use of Hong Kong as a major "booking center" for corporate transactions due to taxation and other reasons. It is not unusual to find loan transactions funded in Singapore, supplemented by funds from London and Nassau, lent to a corporate "shell" in Hong Kong which, in turn, transfers the funds to a subsidiary or other related company in a third country. Similarly, a large number of loans raised in the euro- and Asian-dollar markets for Japanese borrowers are used to finance investments in third countries. Even where the end-user of an international banking credit is located in the country of the borrower, the two might not be identical. For example, the bulk of Asian-dollar lending to Taiwan is done to foreign bank branches or local banks for the purpose of on-lending to end-users in Taiwan. The following sections describe the principal institutional arrangements used by foreign banks to channel funds to the borrowing countries.

1. Foreign bank branches

Foreign banks with resident branches in the borrowing country generally seek to offer a whole range of banking services, including lending of medium-term and long-term funds in local as well as foreign currencies, to the extent that local regulations permit them to do so. Some foreign bank branches largely limit their activities to servicing their own nationals; this appears to be a typical pattern for branches of Japanese banks. The Indonesian branches, for instance, obtain their funds from so-called PMA deposits^{1/} of Japanese firms, deposits

^{1/} These deposits relate to expenditure for projects approved under the Foreign Investment Law; the deposits are noninterest bearing though funds not likely to be used in the near future can be placed, after official approval, as time-deposits.

of resident Japanese nationals, enterprises and joint ventures and funds borrowed by Japanese enterprises from official agencies like the Export-Import Bank of Japan for direct investment purposes and held as working capital. These deposits are lent for supporting Japanese businesses in Indonesia.

2. Foreign banks without resident branches

Foreign banks with active correspondent relationships with local banks sometimes expand by establishing representative offices in the borrowing country. These offices are usually not permitted by the host country to undertake banking transactions, but function largely as liaison offices between their parents or other external sources of funds and local borrowers. Their transactions are normally routed through a local correspondent bank which acts as a guarantor for the borrower's liability to the foreign bank's parent office or subsidiary or branch elsewhere; alternatively, the local bank may serve as principal in the sense of onlending funds for which it is the borrower. In either case, it is usual for the representative office to draw up all necessary documents for the borrower to execute.^{1/} The foreign bank may fund the transaction arranged by its representative office by making a foreign currency deposit with the local bank or through a stand-by letter of credit arrangement. The latter technique is used in the Philippines, where the authorities do not permit banks to issue guarantees for transactions of this type.

3. Other arrangements

Foreign banks without representation in the borrowing country are less inclined to take the initiative for transactions of the kind discussed above. However, depending on their relationship with the local correspondent bank, they are usually receptive to transactions beyond the routine area of trade financing at the initiative of a local bank.

It should be noted that even where a transaction is managed by the local branch of a foreign bank, it might not be entered on the books of that branch. For international banks with a large number of overseas branches it might sometimes be advantageous to book a transaction through some other branch in order to minimize total tax payments of the branch network, and to take advantage of business losses in one branch or the other. Apart from tax considerations, banking and exchange regulations enter into the decision.

^{1/} Sometimes the transactions can be made entirely offshore with the foreign bank representative and the local borrower acting through their respective overseas agents. In the latter case the transaction does not enter the debt statistics of the borrowing country even though it does lead indirectly to a foreign obligation for a resident enterprise.

While local banks and private nonbanking sector enterprises normally raise banking credits through these regional channels, governments and public sector entities are frequently in a position to by-pass the intermediation of local banks and foreign bank offices and go directly to the main international money markets. Since such transactions normally are for larger sums, the syndication technique, managed by a broker or a leading foreign bank, is common. In some countries, like the Philippines, there are resident finance companies of sufficient standing that help arrange such transactions. In Korea, a government-owned commercial bank has a similar position and can serve as agent or broker for the Government and the public sector.

IV. Policy Aspects

The present section focuses on the more important policy issues posed by the rapid growth of international banking credits in the Far East and outlines, but does not evaluate, some of the ways in which these have been resolved in the countries visited.

Three aspects of the use of banking credits were brought up in the course of discussions: (1) The constraints on pursuit of an autonomous monetary policy; (2) the management of external debt; and, (3) the management of foreign exchange reserves; a related problem which came up in one country was the possibility of foreign participation in the domestic banking industry as a means of inducing longer-term foreign credit commitments usable as a "second line of reserves."

The environment within which these policy issues arose was characterized by a highly competitive, even aggressive, thrust by foreign banks to enlarge their opportunities for doing business in the Far East. A variety of factors stimulated this thrust, including the changes in the political and economic climate in the countries surveyed. Other important factors were the government development programs, the development of extracting industries, the widening role of multinational corporations, and the expanding prospect for investment and trade of countries linked to the burgeoning Japanese economy. From the point of view of borrowers, foreign currency commitments could be entered into with little or no risk of exchange loss while lenders could engage even in domestic currency denominated transactions with the expectation of exchange gain. The favorable prospects may have diminished in the wake of recent energy cost increases (except for the oil-exporting countries in the region) but there remains an unmistakable feeling of expanding horizons for the international banking community in this area.

1. Monetary policy issues

In this environment, the predominant question posed by the easy availability of foreign banking funds is that of the relationship

between domestic monetary policy and the management of the exchange regime, including the application of exchange controls on capital inflows. The monetary authorities in these traditional capital-importing countries are confronted with a rather abrupt shift of concerns. They are forced to sift among different types of capital flows and to devise instruments of policy for discouraging certain types of capital without damaging their countries' attractiveness to other types. The policy responses which came under discussion spanned a wide range, from enforcing strict exchange controls to exclusive reliance upon market-oriented incentives to protect monetary policy autonomy. There was relatively little discussion of wider exchange rate margins or non-observance of margins as a means of insulating monetary policy, except in Singapore. Similarly, systematic operations in forward exchange markets by the authorities were not considered practicable at present, although there was some use of "swap" arrangements with banks to influence capital inflows.

The dilemma was seen most clearly in Indonesia. The authorities there had virtually dispensed with exchange controls and were not disposed to reinstate them; they did not wish to float the rupiah but they did want to maintain a relatively high structure of interest rates. Growing opportunities for profitable investment in the Indonesian economy had led to a sharp rise in miscellaneous capital inflows from abroad. Although reliable and comprehensive statistics of these capital movements are not available, some indication of their magnitude can be obtained from certain sources. According to balance of payments data, "other" miscellaneous capital movements (excluding direct investment and trade credits) which were practically nonexistent in 1971 increased to US\$152 million in 1972 and US\$190 million in 1973. Time deposits denominated in foreign exchange, for instance, had risen by US\$104 million in 1972 and US\$153 million in 1973. Rupiah time deposits and certificates of deposit owned by nonresidents also increased, especially toward the end of 1973 and in the early part of 1974. This capital inflow contributed to rupiah credit extension by banks and direct rupiah expenditures by nonbanks and was a major factor in the accelerating pace of monetary expansion and price increases. The rise in price level was beginning to erode the positive interest yield on rupiah deposits and had led to a slowing down in the accumulation of time and saving deposits owned by residents. Hence, any effort to reduce the incentives for capital inflow by lowering interest rates on time deposits would run counter to the objective of mobilizing larger domestic savings.

Given the fixed rupiah/dollar rate of exchange, the only feasible policy alternative was to reduce the incentive or the ability to borrow abroad. The authorities had begun to move in this direction by placing ceilings on the amounts that commercial banks could borrow from banks abroad. They had also applied a reserve requirement equivalent to 30 per cent of the foreign exchange liabilities of the banks, of which only one third was required to be maintained with Bank

Indonesia in interest-free deposits. At one stage it appeared that the rising trend of euro-dollar interest rates would reduce the incentive for the banks to bring in funds. However, banks apparently found it profitable to do so as long as they did not cover the exchange risk through swaps (for which Bank Indonesia charged one-half of 1 per cent per month) or if they would otherwise incur a reserve deficiency at Bank Indonesia (for which they would have to pay a penalty charge of 3 per cent per month). It was clear that while some tightening of the regulations relating to bank borrowings abroad would assist the authorities in securing greater control over capital flowing through banking channels, there would remain a major problem in the case of nonbank borrowing from banks or nonbanks abroad (including the nonbanking subsidiaries of foreign banks). Any scheme of controls on nonbanks appeared tantamount to the reintroduction of exchange controls and was not acceptable to the authorities through 1973.

In the event, the policy conflict was resolved by regulations akin to the "bardepot" scheme adopted in Germany. Subsequent to the staff team's visit, and after further discussion with another Fund mission, the authorities introduced a package of measures in April 1974 designed to staunch banking inflows.^{1/} How effective these measures are will depend critically on how successfully the borrowing operations of nonbank entities can be regulated in the special circumstances of a country where financial operations can be performed "extra-territorially" with relative ease and through well-established channels.

Confronted with a similar problem, the authorities of Singapore proceeded for a time through similar measures applying to the banking system. Substantial recourse to foreign interbank funds during 1972, especially after the floating of the pound sterling in June of that year, led to the application in January 1973 of a special deposit requirement of 5 per cent on net foreign interbank liabilities. In March of the same year, the special deposit as well as the cash reserve

^{1/} In the case of commercial banks, the entire reserve requirement of 30 per cent against liabilities owed to nonresidents was to be maintained with the Bank Indonesia in interest-free deposits. Foreign exchange liabilities were redefined for the purpose of this reserve requirement to include rupiah liabilities to nonresidents as well as to residents if the funds had been transferred from abroad. State banks were prohibited from accepting rupiah time deposits with maturities ranging from three months to twenty-four months from nonresidents as well as from residents if the funds had been transferred from abroad. The regulations governing incurring of liabilities to nonresidents by foreign exchange banks were defined comprehensively. In addition, both nonbank financial institutions and private companies were required to deposit with Bank Indonesia at no interest at least 30 per cent of cash loans received from abroad other than for payment of imports of goods and services. Finally, the authorities planned to establish a ceiling on foreign borrowing of nonbank state enterprises during 1974/75.

requirement was raised to 9 per cent. These measures proved insufficient to curb inflows of capital, especially through nonbanking channels. Moving toward additional regulations would have endangered the development of Singapore as an international financial center. This led the authorities to float the Singapore dollar in June 1973 rather than tighten exchange controls. As a cumulative result of these and other measures the rate of growth of money supply was reduced to 15 per cent in 1973 despite an increase of 45 per cent in bank credit. Consequently, the special deposit requirement was reduced from 9 per cent to 5 per cent in December 1973, and was reduced to zero in March 1974.

In the Philippines and in Korea, the dilemma for monetary policy was less sharp because the authorities had in place a fairly comprehensive set of foreign debt regulations which they were prepared to use effectively for monetary policy purposes. In the Philippines, however, there was a mechanism, one of the objectives of which was to attract the savings of Filipinos earning abroad, which provided a channel for the inflow of banking funds. Under the foreign currency deposits (FCD) scheme established in August 1970, the commercial banks were permitted to increase their foreign liabilities from about P 1 billion at the end of 1970 to almost P 4 billion at the middle of 1973. While they were required to maintain 100 per cent backing in foreign exchange against such deposits, only 15 per cent had to be placed with the Central Bank as "FCD Minimum Reserves" and the remainder could be swapped into pesos with the Central Bank, such swaps being accepted as backing for this purpose. During 1971 swap sales rose rapidly as the authorities found this to be a means of building up official gross reserves. Swap operations began to be restricted from August 1971 as part of a tighter credit policy, but deposits with a maturity of at least three years could be freely "swapped" by the Central Bank and the charge for swaps was held at 1 per cent per annum for swaps over a year. In early 1973, as the need to build up reserves became less pressing the authorities introduced an internal global ceiling on the outstanding amount of swap. At the time of renewal, they also began to extend the maturity of swaps to five years and beyond (except for certain trade swaps for export paper and petroleum imports).

The availability of banking credits to the Philippine National Bank (PNB) and the Philippines Development Bank (DBP) without being tied to procurement abroad became a second source of peso generation. In 1973, a series of transactions was arranged for the purpose of financing domestic credit expansion. In order to moderate monetary expansion, the Central Bank further restricted swap purchases of exchange in December 1973, tightened the regulation governing the net foreign asset position of commercial banks and decided to restrict foreign cash borrowing for peso generation by government financial institutions.

In the case of Korea, the foreign debt regulations were comprehensive and banking credits did not, therefore, create any real problem for monetary policy. However, the interaction between international

credit conditions and an attempt to insulate certain sectors of the economy from a high interest rate policy is illustrated in a negative way by the Korean experience. Under an export promotion lending (EPL) program foreign currency borrowing through the banks was permitted provided the rate of interest did not exceed 9.5 per cent. Since most Korean banks were required to pay up to 2 per cent over the LIBO rate the ceiling led to the banks being unable to continue lending under the EPL program once the LIBO rate had risen beyond 7.5 per cent. The foreign banks continued to operate the program for a longer time, partly because they were able to obtain funds in the euro-dollar market at lower spreads and to absorb losses to a greater extent. They did stop approving new loans and tried to switch existing EPL loans to offshore financing on which fixed interest ceilings did not apply. This entailed the use of a different procedure with the approving authority being prepared to allow financing on the basis of a floating interest rate, but with a spread not exceeding 1.5 per cent over the LIBO rate or the U.S. prime rate. In January 1974, the Korean authorities placed the EPL program on a ceiling rate linked to the six-month LIBO rate plus a margin of 2 per cent.

The foregoing description indicates that the growth of an international banking credit pool in the past few years has created for a number of developing countries in the Far East the same type of problems in the monetary field as it has for most developed countries. In some ways the adverse aspects tend to be reinforced in developing countries for a number of reasons. The influx of foreign funds makes it difficult to pursue interest rate policies that contribute to mobilizing domestic savings by the banking system. To the extent that controls are applied to the banks, the transactions tend to go into nonbank channels that are harder to monitor or to "migrate" to offshore channels. The monetary effects are also more unpredictable because most developing countries are marginal borrowers and, therefore, subject to a greater risk of exogenous changes in capital flows. Foreign banks have tended to strengthen larger firms with foreign affiliations which might be at the expense of indigenous enterprises. Finally, the policy dilemma is far more acute in countries where the capability for implementing offsetting measures is weaker or if the exercise of effective control ties up scarce administrative talent.

2. External debt management

In discussing debt management questions, the authorities in the borrowing countries emphasized that the emergence of an international capital market and their access to it enlarged their range of options. Unlike commercial credits in the form of suppliers'/buyers' credits, the funds provided through banking channels (without official export credit guarantees) were free of procurement restrictions. The credits were also extended on a multicurrency option whereas there was no choice regarding the currency of contract in borrowing from official bilateral sources, including officially guaranteed export credits, as

well as in the case of loans from the international or regional Development Finance Institutions (DFIs).^{1/} The conditions attaching to the use of banking credits were few and this made for speedy utilization. There was little concern with follow-up procedures, such as the end-use inspection applied to official and DFI credits. These advantages were, however, purchased at the cost of greater risk as regards debt servicing liability due to the floating character of the interest rate and the relatively shorter maturities.

The most important trade-offs faced by the authorities in managing banking debt were between an increased debt service risk and a reduction of exchange risk, and another between shorter maturities and easier possibilities of substitution. The authorities in the countries visited had not, in fact, insisted on a multicurrency option or exercised the option to change the currency of denomination periodically when this was possible. It was rather that the ability to choose the currency in which a transaction would be denominated allowed them to obtain credits in their intervention currency. A dollar-denominated loan carried only the risk of a change in the exchange rate of their own currencies vis-à-vis the U.S. dollar--a risk which was within their own power to offset or at least on which they could take a view. Loans denominated in other currencies carried an additional dimension of risk in that they were compelled to formulate a view on the likely movements of their intervention currency vis-à-vis the currencies in which their borrowing was denominated. The risks had intensified since the onset of generalized floating following the second devaluation of the dollar in February 1973. Since banking credits could be denominated in U.S. dollars, there appeared to be a consensus that the reduced exchange risk tended to offset the uncertainty introduced by the floating interest rate. There was a disposition to regard the variable interest rate feature as not making loans necessarily more expensive over the lifetime of the loan compared to fixed rate loans because interest rates could trend in either direction. (See Appendix IV for an elaboration of the trade-off between interest rate and exchange rate variability.)

^{1/} It was noted that in respect of World Bank loans, for instance, the borrower was required to take on liability in currency which the Bank happened to be disbursing at that time rather than in the currency of the country where the goods were procured. In cases where a package of currencies was involved, the proportion in which various currencies were repaid was determined on the basis of currencies which the Bank had actually disbursed. However, this proportion was obtained only through the lifetime of the repayment schedule. In respect of any particular installment the precise composition of currencies was not known to the borrower until a few weeks prior to date of repayment--thereby precluding the covering of exchange risk in the forward market.

As for the second trade-off, the relatively shorter maturities of banking credits used in project financing could be offset by the possibilities of rolling them over or using them to replace other credits. The availability of banking credits for repaying installments falling due on nonbanking credits would have the effect of extending the overall maturity structure. Similarly, banking credits at lower cost might be used to prepay other credits obtained at higher cost, thereby reducing total debt service. However, if the refinancing credits were at floating interest rates and replaced other credits at fixed rates, the debt servicing schedule would become less predictable. Hitherto, banking credits have constituted a relatively minor fraction of total indebtedness in the countries visited. If their weight in the total increases, the management of debt would become a more complex task.

It was recognized that fuller information was necessary for effective debt management and that certain characteristics of banking credits did create problems in administering regulations that were designed for traditional commercial and official credits. Rollover credits, which had the formal characteristics of short-term borrowing, could escape debt control procedures which defined debt in the conventional way, i.e., contractual obligations having a maturity of one year or over. Minimum grace and repayment periods drawn on assumptions of periodic installment terms led to ambiguities in interpreting contracts which could be "front-loaded" or, at the other extreme, had "balloon" features and where in any case, average maturity was a key variable in the lender's decision rather than the number of years to final maturity. Debt service ratios were difficult to define with a floating interest charge. Another set of problems arose from separate jurisdictions. Commercial banks were monitored by central banks which operated with conventional monetary policy instruments and sought to control borrowing or lending through ceilings on global net external positions, usually spot only.

In Korea and the Philippines, the authorities have moved to gradually cover gaps in their regulations as these became evident in the course of utilizing banking credits. Indonesia also introduced legislation covering debts contracted by official entities, but its strong bias against direct controls meant that private sector nonbank transactions are not covered. Even in the banking sector, there are "recognition" problems created by a series of distinctions between (i) deposits and borrowings of resident banks from abroad; (ii) credits from foreign banks versus nonbanking affiliates of foreign banks; (iii) rupiah deposits and foreign currency denominated accounts, and (iv) "above-the-line" liabilities versus contingent liabilities. Indonesian authorities found that ceilings on resident bank borrowings from abroad could be circumvented through banks discounting with non-resident financial institutions their claims upon resident enterprises; ceilings applied to "above-the-line" balance sheet items whereas re-discounts were accounted for as "below-the-line" transactions. The

banks' overall position--spot and forward, contingent and actual--vis-à-vis nonresidents has increasingly been recognized as crucial for effective administration of ceilings on banks. In the case of nonbanks, recent "bardepot" type regulations should permit debt management policies to be applied through better availability of data on foreign borrowing obtained in the course of administering the new regulations.

3. Management of reserves

The management of foreign exchange reserves in relation to banking credits can be discussed partly as an aspect of external debt management and partly as a method of reaching or maintaining an appropriate level of reserves.

a. Cost of borrowed reserves

The problem posed for monetary policy by the accumulation of reserves associated with an inflow of funds used for financing domestic expenditures has an obverse side--the way in which the inflow affects the appropriate level of reserves. In the countries visited, there was an implicit concern that foreign exchange reserves were low despite their recent buildup and that the volatility of short-term capital flows meant that any past concept of a desired reserve level might need to be revised. It was recognized that the desired level of reserves is related in part to the exchange rate system, and, in particular, the practice of holding to narrow margins vis-à-vis the intervention currency. It was also recognized that in some countries the influx of funds might represent in part the play of speculation that the exchange rate would eventually have to be cut from its moorings with the intervention currency or repegged at a more appreciated level. The fact that any decision to widen margins or to dispense with margins altogether had direct relevance for a judgment on the appropriateness of any particular reserve level was not questioned, but no further conclusions for policy were drawn, given a prior decision of the authorities that they wished to maintain their exchange rates within narrow margins for various reasons. In none of the countries surveyed were the authorities satisfied at the time of the visit that an appropriate reserves level had been reached.^{1/}

To the extent that this reserve buildup entailed external borrowing, there was a cost involved, essentially the differential between the rate of interest paid on borrowings and the rate of interest earned on reserve placements.^{2/} The emphasis appeared to be

^{1/} Subsequently, Indonesia's reserves have risen substantially.

^{2/} Other costs are involved in decisions to avoid or minimize exchange risk on reserve asset holdings as well as risk of capital loss. The authorities preferred holding assets denominated in their intervention currency.

on maximizing interest yields on gross reserves. To some extent the costs of holding "borrowed" reserves tended to be obscured by the fact that while the interest costs on borrowed funds are payable by commercial banks or nonbanking borrowers, the income from reserve placements accrues largely to the monetary authorities. It was felt, nevertheless, that the net interest cost payable by the country for borrowing reserves is small, and that it tends to be compensated by certain advantages of maintaining a higher level of gross reserves. The net cost was generally limited to the "spread" or margin over and above the LIBO rate^{1/} with most banks in the region able to borrow in the range of 1 per cent to 1 1/4 per cent over that rate.

b. Reserve level and terms

It was observed by the authorities in some countries that foreign bankers tended to place a great deal of weight on the level and recent trend of gross reserves in determining creditworthiness. The extent to which a given level of reserves had a counterpart in short-term borrowing was not easily determined and, therefore, was not always evaluated. A high level of gross reserves, and especially a rising level, could be employed to assure the rollover of credits and to attract better terms; the concept of terms in this context applied not only to the spread over the LIBO rate but also to the nature of guarantees demanded by lenders and the average maturity of loans.

This terms improvement aspect was particularly pertinent as growing reserves increased the "placement power" of the authorities. Given the highly competitive conditions prevailing during the greater part of 1973, central banks in the region were becoming conscious that lending banks could be influenced by the hope of obtaining larger balances (or the implied threat of having them reduced) to improve the terms offered to private or state enterprise borrowers. None of the authorities admitted to using such placement power to stretch out average maturities or to graduate from state guaranteed credits to nonguaranteed ones or to move from bank credit to the bond market. However, the possibilities were understood and were a factor in decision-making on the appropriate level and trend of reserves.

This concern with the trend was especially evident in the Philippines where the Central Bank raised direct deposits abroad in order to stabilize the level of reserves, particularly in 1971 and 1972. This was understood for what it was, a window-dressing operation

^{1/} Prior to the development of an active euro-currency market, commercial banks in the East Asia region normally had access to U.S. banks at 1 per cent above prime rate but with obligations to maintain minimum balances.

designed to prevent a decline in reserves for seasonal or other temporary reasons. A major purpose of collecting detailed data on exchange flows in the Philippines was to project imbalances that might have an adverse effect on reserves and to smooth out reserve movements through short-term borrowing. The policy was to be reconsidered once reserves had reached a more appropriate level.

In Korea, the same concern was manifested but the instrument used for "fine-tuning" reserve level and trend was through varying access to short-term trade and banking credits. Since domestic interest rates on commercial borrowing were higher than abroad, any acceptance credits authorized would invariably be taken up. Similarly, commercial banks utilized any refinancing facilities that the authorities allowed as long as the cost of so doing remained below the cost of borrowing from the Central Bank. Any refinancing postponed the effect of import payments on reserves beyond the period of settlement by importers.

In a prior phase of acute reserve stringency when access to euro-currency markets was less easy for the Philippines, similar facilities were activated by authorizing the use of "red clause" credits. These were availed of by exporters to obtain pre-shipment finance (e.g., sugar and lumber exporters) through the discounting of export paper before maturity. In the most recent period, following the increase in oil prices, the authorities enlarged the use of import acceptance credits. These were arranged either by the Central Bank or by the Philippine National Bank to finance crude oil purchase on 180-day acceptance terms so as to postpone the drawdown of reserves. It was recognized that after reaching a certain level, however, oil acceptance credits would acquire a revolving character, with further increases in net outstanding amount being tied to any rise in the value of the underlying transactions.

The large deficits in the current account which confront many of the countries in the East Asia region in the aftermath of energy and other import cost increases have led them to seek large syndicated credits. In the Philippines, for instance, the borrowing plans allow specifically for a buildup in gross reserves to offset the increase in trade acceptance and refinancing liabilities of the commercial banks so as to hold net international reserves, defined as gross official reserves plus net commercial bank reserves, at a stable level to maintain confidence and protect the rollover process.

The Filipino success at arranging large borrowing on fairly short notice is at least partly related to an earlier decision to attract foreign equity participation in their domestic banking industry. This was a byproduct of the effort to improve the equity base of the private banks by requiring them to achieve a minimum equity of P 100 million each within a period of two years. Banks with lower capital and reserves were encouraged to meet the capitalization requirement by offering participations to foreign banks. Since

such participation would allow the foreign banks to acquire leverage equal to the ratio of capital to peso deposits, the authorities felt that every dollar of foreign equity investment should be accompanied by US\$10 of counterpart loans or other investments, US\$5 of which would be on commercial terms of at least five years. The concessional loans can take the form of twelve-year Central Bank Certificates of indebtedness denominated in U.S. dollars at six month London interbank rates of interest, or foreign currency deposits. Loans or investments on commercial terms could include commitments already incurred under correspondent lines of credit or participation in syndicated or other credits. Most of the syndicated loans arranged by the Central Bank were obtained from the same foreign banks that were intending to enter into, or had entered into, participations with local banks, thereby enabling them to meet the 1:10 ratio. Hence, a second line of reserves was mobilized through the mechanism of offering equity participations in the domestic banking system. Whether this is an example that can be emulated by other countries in the region is not a question that can be addressed in any general way. It does illustrate an innovative method of engaging foreign banking funds for the building up of the domestic banking system and simultaneously helping in the management of foreign exchange reserves.

External Lending by Japanese Banks

1. Introduction

The emergence of Japanese banks as major suppliers of credit on international capital markets is a recent phenomenon. For more than two decades following World War II, their external lending activities were limited mainly to providing credits to nonresident buyers of Japanese exports. The growth of their lending operations has thereafter been rapid and has also included the purchase of bonds. Foreign currency loans to nonresidents were followed by similar loans to resident firms in 1972. In the first seven months of 1973 alone, approvals by the Ministry of Finance of medium- and long-term bank loans in foreign currencies to nonresidents reached US\$3 billion and outstanding commitments at the end of August 1973 of medium- and long-term loans and of short-term loans, denominated in foreign currencies, amounted to about US\$5.0 billion and US\$5.6 billion, respectively. In addition, approvals for loans to Japanese firms for direct foreign investments totaled US\$1.4 billion. These amounts constituted a peak as the onset of higher energy costs from October 1973 led to a reversal of policies.

The main factor contributing to the rapid increase in external bank lending up to the third quarter of 1973 was the marked strengthening of the balance of payments. Throughout the 1950s and a large part of the 1960s Japan experienced recurring current account deficits, requiring the authorities to adopt tight demand management policies from time to time and to maintain relatively strong capital controls throughout that period. However, in response to the rapid growth of the world economy, the much higher elasticity of exports than of imports with respect to this growth and the relative stability of Japan's wholesale prices, the current account registered generally rapidly rising surpluses from early 1968 and contributed to the building up of an excessive level of international reserves by the early 1970s. As a result, the authorities progressively relaxed their earlier highly restrictive policy toward nontrade-related capital outflows, especially from around the turn of the 1970s.^{1/}

2. Funding

Since Japan's commercial banks make external loans in yen as well as in foreign currencies, and extend the latter to domestic importers as well

^{1/} An important aspect of this, since it gave banks much easier access to lenders and borrowers abroad, was the easing in 1970 of restrictions on the establishment of foreign offices by most Japanese banks. Until then, the branches of the once government-owned Bank of Tokyo and a few city banks constituted most of Japan's commercial banking network abroad. However, following the modification of restrictions, the foreign network expanded rapidly and comprised more than three hundred offices by early 1973. This development coincided with the growth of international banking in the region; a growing number of foreign banks opened their offices in Japan, and by the summer of 1973 foreign banks had almost forty branches and more than fifty representative offices in Tokyo.

as to foreigners and resident firms investing abroad, it is not possible from available data to identify precisely the sources of funds used by these banks in their external lending operations. However, commercial banks are required to use local currency resources to finance yen-denominated loans, and outside a small quota for each bank, cannot convert yen into foreign currency for their foreign currency-denominated loans. Currently yen-denominated external loans of commercial banks account for less than one per cent of their total use of yen funds, while foreign currency loans to nonresidents and Japanese firms making direct foreign investments comprise the greater part of their total lending abroad. On the other hand, the Japanese EXIM Bank is permitted to, and in practice virtually does, finance all of its external loans, regardless of currency denomination, from yen sources.

From October 1972, commercial banks were able to obtain inshore dollars from the Ministry of Finance, under a dollar deposit scheme with the commercial banks, which was instituted to enable these banks to finance imports and direct foreign investments by Japanese firms without having to borrow in overseas financial markets. Deposits were made for four months and carried interest rates below those prevailing abroad. The share of individual loans which banks could finance from these deposits was initially set at 70 per cent, but was raised to 90 per cent in March 1973. Lending under this scheme increased considerably during the year, but was rapidly reversed in the early part of 1974, inducing the banks to sharply step up their borrowing in both euro-currency markets and in the U.S. market.

Foreign currency funds could also be obtained from local branches of foreign banks or from other domestic banks operating in the Tokyo dollar call market. This market was established in April 1972 and is restricted to Tokyo branches of foreign banks (which account for about half of its turnover), the fourteen city banks, and a few dealers. Loans are made for varying periods and carried spreads over the LIBO rate of 3/16 to 5/16 percentage points. Although the market has grown rapidly, it remains a comparatively minor source of funds.

The main sources of external funds are the euro-currency and Asian-dollar markets and the New York market. Outstanding borrowings from the euro-dollar market increased from US\$1.0 billion at the end of 1967 to US\$7.5 billion at the end of 1973. The growth continued in the first quarter of 1974. Net borrowing from this market followed a similar pattern, rising from US\$1.0 billion at the end of 1967 to US\$4.1 billion at the end of 1973 (Table 1).

Table 1. European Reporting Banks' Assets and Liabilities in U.S. Dollars Vis-à-Vis Japan, 1967-73

(In millions of U.S. dollars)

	Assets	Liabilities	Net Assets
1967	1,030	70	960
1968	1,690	90	1,600
1969	1,480	390	1,090
1970	2,320	550	1,770
1971	3,090	870	2,220
1972: June	4,010	980	3,030
December	4,510	1,440	3,070
1973: June	5,170	2,690	2,480
December	7,510	3,370	4,140

Source: BIS, Annual Reports.

Published data are not available on funding through the Asian-dollar market; however, it is believed to be marginally greater than the out-standings in the Tokyo-dollar call market, i.e., in the range of US\$0.4 billion to US\$0.5 billion. Japanese banks make little distinction between the London and Singapore markets because interest rates and other conditions of borrowing in the two are generally the same. Most of this borrowing is done against ninety-day or six-month promissory notes, although Japanese banks have engaged in certificate of deposit borrowing with initial maturities of up to five years.

Commercial banks also obtain funds in the domestic money markets of countries which are recipients of Japanese bank loans. Many head offices require that overseas branches and affiliates raise locally a proportion (generally about 25 per cent) of the funds for loans they write, particularly when the loan is denominated in the local currency, as a hedge against exchange rate movements. However, the total amount of money raised in these markets is reportedly small, compared with funding in the Tokyo-dollar call market.

The EXIM Bank, which provides the greater part of buyers' credits, receives about one quarter of its funds in the form of capital subscriptions through the Government's Investment Special Account and borrows virtually all of the remainder from the Government's Trust Fund Bureau (Table 2).

Table 2. Outstanding Liabilities of the EXIM Bank, 1967-73

(In billions of yen)

	Capital	Reserves	Borrowings	Total
1967	256	7	589	852
1968	309	8	724	1,041
1969	372	8	876	1,256
1970	445	8	1,078	1,531
1971	510	10	1,251	1,771
1972	574	15	1,315	1,904
1973 ^{1/}	639	21	1,579	2,239

Source: Bank of Japan, Economic Statistics Monthly.

^{1/} End of November.

3. Lending

Regulations concerning external bank lending vary with the maturity, currency denomination, and recipient of the loans. There are no restrictions on foreign currency loans to nonresidents with initial maturities of less than one year. From October 20, 1972 all such loans with maturities of one year or more require approval from the Ministry of Finance. The approval system was reintroduced to (1) restrict the granting of buyers' credits, at a time when the continuing large current account surplus was giving rise to considerable and growing criticism abroad; (2) ensure conformity with current international banking practices, following complaints, from European banks in particular, about the use by Japanese banks of short-term euro-currency borrowings to finance fixed-interest, long-term loans abroad; and (3) protect domestic depositors.

Published data on the geographical distribution of external loans are available only for those made comparatively recently, and with medium- and long-term maturities. Of total approvals of foreign currency loans of US\$3 billion to nonresidents in the first seven months of 1973, for instance, almost US\$1.4 billion was lent to borrowers in Europe (particularly the United Kingdom and Italy) and North America. Approvals to Southeast Asian countries, chiefly Indonesia and the Philippines, amounted to only US\$0.2 billion (Table 3). Cumulative commitments from the beginning of 1971 to the end of August 1973 of foreign currency loans to nonresidents totaled a little over US\$5 billion, of which about US\$2.8 billion was to developing countries outside Europe. The major recipient area was Latin America with US\$1.5 billion, followed by Africa with US\$0.7 billion and the Middle East and Asia with US\$0.3 billion and US\$0.2 billion, respectively.

The main end-users of external loans of Japanese banks are the purchasers of Japanese exports and foreign and Japanese firms abroad. Most buyers' credits are granted by affiliates in borrowing countries, largely with funds provided by head offices of banks in Japan and increased sharply in the early 1970s (Table 4). A large part of nontrade lending to foreigners has been to international and national finance and development institutions for on-lending to firms abroad; however, many loans have also been made directly to foreign firms, particularly those in the petroleum and automobile industries. Loans to resident firms investing abroad have been used chiefly for the establishment of mining operations in the Middle East, Australia, Indonesia, the Philippines, and Brazil; manufacturing plants in neighboring Asian countries; and distribution and service networks for Japan's exports in the United States and Europe.

A large part of bank credit, especially for trade, is extended through correspondent lines of credit or against promissory notes. Publicly and privately placed bond issues have become increasingly popular in recent years, with the latter being more common because margins are lower and there is no precondition as in the case of public issues in the Tokyo market that other issues have been made abroad. Almost 70 financial institutions, in addition to the city banks, have purchased foreign bonds.

Most trade loans and an increasing number of nontrade loans are made in conjunction with other banks. The EXIM Bank provides joint finance with commercial banks for buyers' credits, supplying about 80 per cent of the former, except in the case of ships where its share is limited to 55 per cent. It also supports direct foreign investment, taking a share of about 60 per cent. The EXIM Bank has also participated in joint and parallel financing with the World Bank especially in Latin America. Prior to July 1972, commercial banks made many partial purchases of foreign bond issues; however, from that date they have been permitted to buy the whole of a foreign issuer's offering if the full amount were sold privately in Japan. Banks prefer complete to partial issues because these permit them to establish direct contact with potential customers, and most placements from the summer of 1972 have taken this form. The share of Japanese banks

Table 3. Geographical Distribution of Japanese Banks' Foreign Currency Lendings with Maturities of One Year and Over^{1/}

(In millions of U.S. dollars)

	1973							Total
	Jan.	Feb.	Mar.	Apr.	May	June	July	
North America and West Europe	32	237	25	394	180	32	491	1,392
East Europe	16	7	45	1	28	8	25	130
Latin America	46	43	99	102	77	99	129	594
Southeast Asia	64	5	15	18	7	81	27	217
Middle East	3	15	1	26	130	--	148	323
Africa	4	2	129	70	47	49	82	383
Oceania	--	--	--	--	--	<u>1</u>	--	<u>1</u>
Total	165	308	313	611	470	270	902	3,038

Source: Data supplied by Japanese authorities.

^{1/} Validation basis.

Table 4. Buyers' Credits^{1/} Provided by Japanese Banks FY 1969-FY 1972^{2/}

(In millions of yen)

	1969	1970	1971	1972
EXIM Bank	6,150	6,238	12,655	46,734
Commercial banks	<u>963</u>	<u>209</u>	<u>1,345</u>	<u>11,530</u>
Total	7,113	6,447	14,000	58,269

Source: Data supplied by Japanese authorities.

^{1/} Commitment basis.

^{2/} Year commencing April.

in syndicated loans is usually higher when they are managing than when they are simply participating in the syndicate, although sometimes a participant bank may seek a particularly large share in order to gain a foothold in a new market.

The terms on which banks make external loans depend partly on the end-use and type of these loans. For export credits financed by the EXIM Bank in conjunction with the World Bank, interest rates averaged a little under 7 per cent, maturities were generally less than 10 years,^{1/} and repayments were generally made in half-yearly installments commencing six months after delivery or after an agreed grace period. Interest rates on credits provided jointly by the EXIM Bank and commercial banks are determined to a large extent by the cost at which the buyer could obtain similar credits abroad. For example, in the summer of 1973 the international rate for guaranteed export credits was 6.5-7.0 per cent, while the rates on the EXIM Bank and commercial bank components of Japanese credits were about 5 per cent and 8.5 per cent, respectively. Since the EXIM Bank was providing about 80 per cent of individual buyers' credits at this time, the average cost of these to borrowers was about 6 per cent. The share provided by the EXIM Bank was somewhat lower in earlier years.

The share of fixed-interest loans made by commercial banks declined in 1973, reflecting both the sharp rise in euro-dollar rates and guidelines established by the Ministry of Finance, but at the end of July 1973 still accounted for about 40 per cent of outstanding commitments of syndicated loans. The remaining loans were tied to either the LIBO rate or the New York Bankers' Acceptance rate, depending on where the loans were funded. Repayment terms mostly included a grace period with six-monthly payments for the remainder of the period covered by the loan. Loans with "balloon" repayment schedules were sometimes granted, mainly to governments, but were not popular with lending banks because of the greater risk of borrower default. The option to change the currency denomination at six-month intervals was included in most contracts, but was rarely exercised, at least by borrowers in developing countries.

Borrowers rarely volunteer guarantees, although these are sometimes provided by official entities in the borrowing countries. However, banks can obtain insurance from the Ministry of International Trade and Industry (MITI) for buyers' credits when these are tied to project-related Japanese exports, and for loans to finance direct foreign investments of Japanese firms. This insurance covers losses due to economic or political default, including nationalization, but does not extend to losses resulting from exchange rate changes. Premiums charged by MITI depend on its credit-worthiness rating of the host country. Its rating system comprises five categories, with premiums ranging from 0.6 per cent to 3.0 per cent. MITI takes into account a variety of factors in assigning countries to particular

^{1/} There are exceptions such as a credit to Mexico for the construction of a nuclear plant providing for a maturity period of 15 years.

categories, including the balance of payments situation and prospects, the levels of foreign exchange reserves and external debts, the external debt service ratio, and the political situation. At the end of March 1972 the value of outstanding medium- and long-term loans insured with MITI was US\$10.8 billion of which US\$2.4 billion was to buyers in Asia.

Japanese banks measure exposure in terms of firm commitments by head offices and foreign branches, but not of affiliates which, unless wholly owned, operate as independent entities. Loans insured with MITI are also excluded. Contingency commitments are sometimes taken into account, but are assigned relatively low weights. Banks generally do not have precise exposure ceilings for borrowing countries, but follow internal guidelines laid down by their area specialists. Their assessment of countries has become stricter following energy and other cost increases abroad. While their role in international credit markets is expected to continue growing, their operations are likely to be financed through borrowing in euro-currency and other markets to a much greater extent than in the recent past.

The Asian Currency Market (ACM)

1. Introduction

The principal intermediary market for foreign banking funds in the East Asia region is located in Singapore. It is a funnel rather than a source, for savings made elsewhere. The ACM was established in November 1968. Its rapid development was facilitated by Singapore's favorable location, its good communications network, its sophisticated banking system, and its political and economic stability. Some of these features are shared by some other Asian centers, notably Hong Kong and Japan. However, in contrast with the former, Singapore repealed its withholding tax on interest earnings from deposits in convertible currencies (of 50 per cent) in 1968, and unlike Japan, it has no restrictions on the inward or outward remittance of funds to countries in the sterling area. It also has the important advantage over both these places of overlapping working hours with the major financial centers in Europe.

Banks must obtain licenses from the Monetary Authority of Singapore (MAS) in order to operate in the ACM.^{1/} Licenses are given only to well-known and experienced banks, in order to ensure stability in the market. The authorities also require that banks maintain their ACM accounts in separate operating entities, known as Asian Currency Units (ACUs), to facilitate supervision by the Singapore authorities as well as to insulate the domestic economy from the market's effects.

The initiator of the ACM, and the first bank to establish a branch in it, was the Bank of America. It was soon followed by other large foreign banks, which either opened branches or formed joint venture merchant banks, and later by some local banks. By early 1974 there were thirty-one foreign and five Singapore banks operating in the market, as well as several overseas money and foreign exchange brokers.

2. Sources of funds

The distinguishing feature of the activities of banks in the ACM shared by those of their counterparts in Japan and Hong Kong, is the acceptance of deposits denominated in foreign currencies. These deposits more than doubled annually in the market's first four years, to reach almost US\$3.0 billion at the end of 1972. They continued to rise rapidly in the early part of 1973, and amounted to US\$6.3 billion at the end of 1973 (see Table 5). About 92 per cent were denominated in U.S. dollars, with the remainder being mainly in Swiss and French francs, mark, yen, and guilders.

^{1/} The Monetary Authority of Singapore was established in January 1971. Prior to that date, licenses were issued by the Ministry of Finance.

Table 5. Total Deposits of Asian Currency Units, 1968-73^{1/}

(In millions of U.S. dollars)

	1968	1969	1970	1971	1972	1973
March	...	33	176	542	1,283	3,539
June	...	56	266	782	1,619	3,830
September	...	96	348	959	2,259	4,913
December	30	122	387	1,063	2,976	6,300

^{1/} At end of period.

The main regulation on the funding activities of the ACUs concerns the level of deposits. Overall limits are set by MAS, generally in tranches of US\$50 million. To date, ACUs of foreign banks have experienced little difficulty in getting approval for additional tranches. In the case of these ACUs, the main objective of the approval system is to provide MAS with an opportunity to discuss their banking activities with them and to learn their attitudes toward its own policies and practices. For ACUs of Singapore banks, the approval system is used mainly to ensure their financial viability, and additional tranches are granted only if they can maintain their capital (including reserves) to deposits ratio above 7 per cent.

ACUs receive most of their deposits from nonresidents. These include individuals in other Asian countries, including overseas Chinese who formerly deposited their dollar holdings in the euro-dollar market; U.S. and Japanese firms with major overseas branches in Asia; central banks and other official statutory bodies; and some commercial banks. However, deposits are also received from residents, particularly insurance companies and approved provident and pension funds, which, since mid-1972, have been allowed to apply to MAS for permission to deposit up to 10 per cent of their funds with ACUs. Also, from April 1972 resident companies were permitted to borrow in the Asian currency market for export finance, and from July 1973, exchange control regulations were relaxed to enable wider participation in the market by residents. The ACUs received blanket approval from MAS to accept deposits from residents for amounts up to US\$100,000 per person and US\$3 million per firm.

The terms offered on deposits are generally in line with those prevailing in the euro-dollar market, although ACUs do accept deposits for shorter periods and in smaller amounts than do their counterparts

in Europe. For example, the minimum size deposit is US\$25,000 for most banks and US\$5,000 for some, compared with US\$100,000 in Europe. Interest rates were initially slightly above those offered in the euro-dollar market.

From mid-1970, ACUs have been permitted to issue negotiable certificates of deposit in currencies other than the Singapore dollar. The interest rates on these are usually 1/16 percentage point below those on similar term standard time deposits. The demand for the certificates has been very limited, and no active secondary market in them has yet developed, chiefly because ACUs have not imposed penalties on customers making early withdrawals of standard time deposits.

3. Uses of funds

There are now very few regulations on the use of funds by ACUs. Initially, they were required to maintain a 20 per cent liquidity ratio; however, foreign-owned ACUs could easily circumvent the intention of this requirement by making swaps with head offices abroad, and in order to remove the discrimination against Singapore ACUs it was replaced in January 1972, with general guidelines on acceptable liquidity standards. Also, during the market's early years, ACUs were prohibited from making any loans to Singapore-based enterprises. However, in later years these companies could apply for exchange control approval to borrow from ACUs. This regulation was further modified in mid-1972 to permit such loans for financing Singapore's exports. Nevertheless, the Singapore Government prefers the ACUs to engage in "offshore" lending, and in September 1972 made a large reduction in the corporate tax rate applied to interest earnings on loans made abroad.

During the late 1960s the greater part of ACU lending was to the euro-dollar market. However, with the increasing pace of economic development in Asia and the growing familiarity of Asian firms with floating interest rates, this flow declined considerably, and by early 1973 around 80 per cent of new lending was to Asian countries. Within Asia, most of the lending was to Japan, Hong Kong, Indonesia, the Philippines, and Australia. Very little lending was done to New Zealand and Thailand, which have very close connections and large credit lines with banks in the United Kingdom and the United States, respectively; to India and Pakistan because of their exchange regulations and withholding tax regulations; and to Malaysia.

Syndicated lending is becoming increasingly important due to the growing size of loans. The first syndicated loan was made in December 1971, to the Private Investment Company for Asia (PICA) for US\$10 million, and the second was made eight months later to Brunei LNG, for US\$27.5 million.

Because Singapore is mainly a funding center, and direct loans which are made are mostly to prime names, ACUs generally do not find it necessary to do detailed analysis of the creditworthiness of final borrowers, or of the economic viability of final activities financed through the market.

Regulatory Framework^{1/}

This Appendix describes the regulations affecting the uptake of banking credits in three developing countries in the East Asia region and interplay between capital inflow and the regulatory framework.

The basic stance of all countries surveyed in the region to capital from abroad has been open. Only recently has the inflow of certain types of banking capital been perceived as having certain adverse side-effects requiring official control or offsetting action.

1. External debt control regulations

Controls on foreign borrowing typically distinguish between short-term transactions, usually with initial maturities of one year and less, and transactions with longer maturities. Frequently, the two types of transactions are subject to different regulations and their implementation entrusted to separate supervisory institutions. Banking credits are usually treated in the shorter-term category, and their monitoring left to the central bank.

a. Indonesia

In Indonesia the decrees regulating foreign borrowing by nonbanks apply only to credits with an initial maturity of one year or more, counted from the signing of the loan agreement. The regulations apply explicitly to transactions of shorter maturities, but which are revolving in character so that they will exceed one year. In addition, certain banking regulations apply to short-term foreign currency bank loans.

The broad principles for government regulation of the contracting of foreign debt are set out in a Presidential Decision of 1971:

- "a. foreign credits to be limited to a certain amount will be controlled by Bank Indonesia;
- b. foreign credit receipts, both in the context of foreign investment and in other contexts, have to be reported to Bank Indonesia;
- c. the reporting mentioned in b. above refers to receipts, as well as disbursements and payment of installments and interest."

The Indonesian regulations also define foreign credits as:

- "a. all loans which cause obligation to repay to foreign countries either in foreign currency or in rupiah;

^{1/} This description covers the situation up to the end of 1973.

- b. all domestic loans which may cause obligation to repay to a foreign country, in rupiah, both on the basis of credit agreement, and on the basis of the issuance of debentures, notes, acceptances, guarantees, as well as other forms of loans and payment obligations which are normally used, including 'charter purchase,' 'lease purchase,' 'deferred payment purchase arrangement,' etc."

State and regional enterprises must obtain the approval of the Ministry of Finance for their foreign borrowings and periodically report the implementation of these loans to the Ministry and to Bank Indonesia. Private enterprises are not required to obtain such approval. However, they are required to submit reports on the implementation of their loans to the Ministry of Finance and Bank Indonesia, according to procedures determined by the Ministry.

Investments under the Foreign and/or Private Investment Laws, having government participation, must obtain the permission of the Ministry of Finance for their foreign borrowings. Investments of wholly private enterprises must obtain such approval and must submit periodic reports to the Ministry and to Bank Indonesia. Furthermore, state, regional, and private enterprises are allowed to accept foreign credits only if they do not entail accompanying guarantees by the Government or its agents. State and regional enterprises, including the state-owned banks, are prohibited from extending guarantees.

The procedures for the administration of these regulations provide that state and regional banking institutions must first apply to Bank Indonesia, which is responsible for reviewing the applications, prior to submission to the Ministry of Finance. Periodic reports, beginning on the effective date of the loan agreement, and every three months thereafter must be made to Bank Indonesia and to the Ministry by all state, regional and private enterprises. Bank Indonesia is charged with the administration and verification of these reports.

Foreign borrowing by the banking system is regulated by Bank Indonesia through quantitative ceilings on each authorized exchange bank in respect of their borrowings, whether in the form of loans or deposits, denominated in foreign currencies from banks abroad. The ceiling on bank borrowings also covers credit extended by a foreign bank to a resident bank under a correspondent line of credit agreement. The ceilings are related to the overall ceiling in the stand-by arrangement with the Fund, and the relative size of the bank's activities. Interbank rupiah deposits are not subject to ceilings on the grounds that the bank bringing in funds from abroad would be subject to the ceiling at the initial stage, as long as the funds came from another bank. There is no limitation on foreign currency loans or deposits from residents and nonresidents other than banks. The banks, however, are required to report to Bank Indonesia such deposits, including the identity of the depositor. The purpose for this reporting is to make possible for the authorities to determine that the depositor is not, in fact, a bank.

Banks are prohibited from issuing guarantees in foreign exchange as well as issuing rupiah guarantees to nonresidents. The former provision specifically states that such prohibition is intended to include any guarantee of collateral denominated in foreign currency for the interest of a third party.

There is no requirement with respect to the foreign exchange positions of commercial banks.

Bank Indonesia discontinued its forward cover facility after August 15, 1971, and there is no private forward exchange market. At present the central bank provides a swap facility at a charge of 1/2 per cent per month for a maximum of six months. This facility was introduced in December 1971.

b. Korea

In Korea, foreign credits are classified into two groups: (1) transactions with original maturities of up to three years, and (2) over three years. Banking credits are regarded as short term even if the maturities exceed three years, unless used for financing investment projects. The controls on short-term borrowing are based on the Foreign Exchange Control Law, and its major tool is the Foreign Exchange Budget. The budget exercise is carried out by the Ministry of Finance, which is the approving authority for short-term credits. Correspondent lines of credits, overdrafts and mail transfer credits between domestic banks and banks abroad are the only transactions where the Ministry of Finance has delegated approval. The Bank of Korea has in turn delegated approval to the foreign exchange banks.

Transactions with maturities over three years are classified as direct investment and long-term borrowing and regulated under the Foreign Capital Inducement Law. The approval of such transactions is given by the Foreign Capital Inducement Deliberations Committee, and the supervisory authority is the Economic Planning Board.

The Korean authorities distinguish between three types of short-term credits:

- (1) Trade credits, comprising documents against acceptance (D/A), and usance credits;
- (2) Advance receipts under "red clause" letters of credit; and
- (3) Other short-term borrowings, comprising refinance, overdrafts, and bank loans.

(1) While D/A credits are classified by use, usance credits are classified by commodity. The authorities do not regard documents against payment as credit, since they are similar to letters of credit on a sight basis.

D/A credits carry maturities up to one year and commercial banks are authorized to approve such credits with maturities up to 90 days, while credits with longer maturities require approval by the Ministry of Finance. The Foreign Exchange Budget sets a ceiling on gross approval of D/A credits, an outline for the management of which is set up by the Ministry of Finance in consultation with the Ministry of Commerce and Industry. D/A credits are divided into three categories, each with a subceiling:

- (a) D/A for general use can be used by general traders for imports of any commodity listed on an "automatic approval list" up to a maximum of 10 per cent of the traders' export record of the previous year;
- (b) D/A for special purposes are limited to a list of specified imports, presently comprising nine commodities, including lumber, steel scrap, paper, pulp, pesticides, old ships, etc. This category was established to facilitate imports of certain commodities for which shortages were anticipated; and
- (c) D/A for leading exporters are reserved for imports by export-oriented enterprises up to a maximum of 10 per cent of the export record of the current year. The allocation of such credit approvals is administered by the Ministry of Commerce and Industry, and the maturity period is 270 days.

The granting of approval of D/A credits is related to the advance import deposit requirement. While such deposits are required at 100 per cent of the value of imports, the third category of D/A imports requires a deposit of only 10 per cent, while for other D/A imports the standard rate is 40 per cent, but with differentiation among commodities. The authorities, however, do not regard the import deposit requirement as much of a burden, since the importer is permitted to borrow up to 80 per cent of the deposit from the commercial banks, and since deposits are released on arrival of the bill of lading the importer carries the cost only during the period from the opening of letters of credit to the receipt of the bill of lading, a period that probably averages 20-30 days.

Shippers' usance credits are primarily used to finance the imports of certain materials such as petroleum, raw cotton, grains, etc. Usance credits have maturities up to one year, except for cotton imports, where the maturity can be up to three years. In the past, grain imports were effected under 35 months' usance credits. Approval for usance credits is given by the Korea Exchange Bank. Interest rates for usance credits follow closely the U.S. prime rate. Annual ceilings are set on the gross approval of new usance credits.

(2) Advance export receipts have been used as a device to improve the external reserve position, but high interest rates abroad have deterred a rise in 1973. The scheme is managed by the Ministry of Commerce and Industry. There are three categories of advance export receipts:

- (a) exporters of a few items, notably silk and fish, are required to receive the total amount of the letter of credit in advance, and to export the full consignment within 120 days after receipt;
- (b) exporters of certain other items are required to receive 50 per cent of the amount of the letter of credit in advance, and to export two thirds of the full consignment within 90 days after receipt; and
- (c) exporters receiving less than US\$10,000 are required to export within 30 days after receipt of payment.

(3) Refinance covers the establishment of a line of credit by a Korean bank with a foreign correspondent bank against a banker's acceptance. The maturities are up to 180 days and the interest rate is normally the New York banker's acceptance rate plus a commitment fee of 1 per cent and an acceptance charge of 1 1/2 per cent. The authorities set an annual ceiling on the net increase in the use of such lines of credit.

Overdrafts and mail transfer credits have a maturities of less than 15 days. The approval of such lines of credit has been delegated by the Ministry of Finance to the Bank of Korea, which in turn has passed it on to the foreign exchange banks on the grounds that the regulations on the foreign exchange positions of the banks cover these credits and thus make control over overdraft facilities superfluous.

Bank loans are largely used for modernization of equipment and expansion of plant capacity by export-oriented industries, under the Export Promotion Lending (EPL) program. The Ministry of Finance sets an annual ceiling on approvals of bank loans under this program, as well as each bank's allocation and term requirements. A typical bank loan would have an eight-year maturity with a three-year grace period and a maximum interest rate of 9 1/2 per cent. In spite of the long maturity, such transactions are classified as short-term. The interest rate ceiling has recently led to negative margins for the lending banks.

Korean enterprises are not permitted to borrow directly from banks abroad and such a transaction would have to be routed through a resident bank. Such transactions are also classified as bank loans, and as such are under the authority of the Ministry of Finance, except

where the bank loan would be tied directly to project financing, in which case the Economic Planning Board would be the controlling authority, provided that the maturity is longer than three years. The rates charged on such transactions are typically at a margin of 1 per cent over the U.S. prime rate, or 1-2 per cent over the LIBO rate, depending on the source of funds.

Korean banks and resident branches of foreign banks are permitted to accept foreign currency deposits. The interest rate on such deposits is set at a ceiling of 9 per cent. A few years ago, this was an attractive rate by international standards, and because there was no exchange risk involved, foreign currency deposits were a significant source of funds for Korean banks. However, the considerable rise in interest rates in New York and London has discouraged new deposits during the past year, and their outstanding value has been falling rapidly as existing deposits mature.

Korean residents are not permitted to engage in swap transactions. However, resident branches of foreign banks may engage in swap transactions as long as the outstanding balance for each bank does not exceed a ceiling set by the Ministry of Finance, and at least 75 per cent of the swaps are used for export financing. Branches may apply to the Ministry for approval of swaps which would cause them to exceed the ceilings. The Bank of Korea makes swaps for a maximum term of six months and charges a commission of 1/2 per cent per annum. However, the interest ceiling on lending for export financing is 7 per cent, and the banks may not charge more than 15 1/2 per cent interest on lending for general purpose, which the foreign banks do not regard as adequate compensation with the high international cost of money, and consequently have not used this facility recently.

Banks are not permitted to accumulate an oversold position beyond the amount of the swap limits. This is designed to prevent inward switching for won-lending or for an exchange speculation.

Exporters are permitted to engage in forward exchange transactions, but choose not to do so because of the preferential export financing system. Since importers are not permitted to buy forward exchange, exporters might not be able to sell foreign exchange forward, even if they so wished.

Foreign lenders usually require that loans to Korean enterprises are backed by a government or bank guarantee. All such guarantees in recent years have been provided by the Korea Exchange Bank, which charges 1/2-1/3 per cent per annum to guarantee loans made to private enterprises.

c. Philippines

In the Philippines all inward capital movements with respect to both the public and the private sector must be registered with the Central Bank and have its prior approval. This requirement includes short-term trade credits, banking and other financial credits, suppliers' credits, and official development loans. As an additional control mechanism, sales of foreign exchange by authorized banks for amortization and servicing of foreign loans are permitted only in accordance with the terms of the loan contracts approved by the Central Bank and only if the loan is registered with the Central Bank.

Approval is given on the basis of certain criteria with respect to terms and priorities (see below) and within a legal framework that imposes an overall constraint on total borrowing in the form of a ceiling on the country's annual external debt service ratio. The Government may borrow abroad or guarantee external debt only if the debt service on the total external debt in any fiscal year does not exceed 20 per cent of the average foreign exchange receipts of the immediately preceding three years. For this purpose debt service is defined to include servicing of total debt, including Central Bank obligations, but excluding loans and credits of a shorter term than one year, and revolving credits associated with trade and commercial banking operations. Foreign exchange receipts are defined to include receipts from goods, services, transfers, investments, and credits, including suppliers' credits.

Commercial banks are not permitted to incur foreign obligations except those arising from normal trade transactions and the foreign currency deposit scheme (see below). The Central Bank can, however, approve on a case-by-case basis medium- and long-term financial credits from abroad, such as euro-credits. The regulations do not permit medium- and long-term credits, "that require the execution of promissory notes with shorter maturity periods which shall be subject to periodic renewals under certain conditions." This rule appears to be applicable to certain euro-credits, where the transaction normally is based on revolving six-month promissory notes. Euro-credits now have to either be based on different documentation, clearly identifying the maturity of the transaction, or on the lender making purchases of certificates of deposit, issued by the borrowing bank.

In addition, with respect to cash loans from abroad, the borrower is required to sell the foreign exchange to an authorized bank within three business days after the receipt of the foreign exchange. Such inward remittance of the loan proceeds of cash loans is required, and the borrower must submit documentary proof of such remittance for registration with the Central Bank.

In October 1973 the authorities decided to further strengthen the approval role of the Central Bank in respect to foreign currency borrowing by certain government financial institutions. While they previously were

only required to seek the Central Bank's prior opinion, they will now be required to obtain Central Bank approval prior to entering into actual negotiations. In addition, the Central Bank will be represented in such negotiations with the lenders. This change is a result of the increased use of euro-credits by two public sector financial institutions, the Development Bank of the Philippines and the Philippines National Bank, and the purpose is to ensure a more coordinated approach to such borrowings by the public sector.

In 1970 a foreign currency deposit scheme was introduced. Under this scheme any resident or nonresident may deposit foreign currencies with authorized banks as either demand, savings, or time deposits. The banks are free to set interest rates on such deposits up to a prescribed maximum of 14 per cent per annum. The scheme provides a guarantee for secrecy and banks are permitted to establish numbered accounts. Interest on deposits by nonresidents not engaged in trade or business in the Philippines is exempt from income tax as well as the 15 per cent withholding tax. These deposits can also be used as collateral for loans denominated in pesos as well as in foreign currencies. The banks are, however, required to maintain a 100 per cent currency cover for such deposits, of which at least 15 per cent must be deposited with the Central Bank. The balance can be held as deposits with foreign banks, or as short-term "readily marketable" loans or securities, or as notes and coins on hand, or as swaps with the Central Bank. The latter provides a facility for switching the deposits into pesos.

Eligible for the foreign currency deposit scheme are funds from any source, except those arising out of transactions with surrender requirements according to the exchange control regulations. The commercial banks are, however, not required to inquire into the sources of funds accepted for deposit. Apart from foreigners, a large number of nonresident Filipino nationals are allowed to hold foreign currency deposits as long as the proceeds have arisen from income abroad. A second major source of these deposits is the influx of funds from foreign head offices to resident subsidiaries. In certain cases this facility is used by foreign commercial banks for lending to local banks or enterprises, either in pesos or in foreign currencies.

The Central Bank provides a swap facility for certain types of transactions. Such swaps are of two kinds: with and without forward cover. Recently, the Central Bank has tended toward providing swaps only as a transfer guarantee, at the rate of exchange applicable at the time the transaction is consummated. Swaps are provided for foreign currency deposits, for pre-export financing, and to a more limited extent for certain other purposes, such as petroleum imports and for export papers. The latter has, however, been largely discontinued. The Central Bank charges 1 1/2 per cent per annum for swaps for one year or less, and a rate of 1 per cent per annum for swaps of longer maturities. While the authorities regard this as an insufficient rate to cover exchange risks, it has been decided to continue to offer swaps at a low rate, but on a

selective basis, rather than to make the facility more expensive and open for a wider variety of transactions. One reason for this decision appears to have been the absence of a forward market. The commercial banks do not provide any forward facilities because of the absence of any Central Bank support.

Recently, the authorities have begun to place various restrictions on the renewal of swaps and have introduced an internal global ceiling on the outstanding amount. They are also trying to lengthen the period of the swaps in order to have better control over the repayment profile of Central Bank liabilities. Initially, almost all swaps had been for periods of less than one year but gradually the terms have been extended to the first three years, and as of August 1973 more than 40 per cent of the swaps outstanding were of longer maturities than three years, and maturities at present range to over five years.

2. Approval criteria

In Indonesia the Central Bank does not permit resident commercial banks to borrow from foreign banks on longer terms than six months. In addition, the commercial banks are not permitted to pay a higher rate of interest on such funds than the rates charged by Bank Indonesia for re-financing credits. However, on the lending side the banks are free to set their own rates, when extending foreign currency loans. With respect to foreign borrowing by resident nonbanks for the purpose of direct investment projects, the Foreign Investment Law requires a minimum grace period of three years. The law also prescribes that the cash flow of the project must provide the borrower with sufficient earning capacity to service the loan. There are, however, no guidelines regarding interest rates, and approval of such transactions is given on a case-by-case basis. While there are no legal provisions regarding loan-equity ratios, the authorities study the financing structure of projects as a part of the approval procedures.

In Korea the authorities prescribe interest rate ceilings on foreign currency deposits by nonresidents. Initially, this ceiling was set at 8 per cent per annum, but was recently raised to 9 per cent. Otherwise, all short-term capital inflow is screened by the Ministry of Finance on a case-by-case basis. With respect to direct investment and long-term borrowing, including foreign currency term borrowing, the approval criteria include feasibility studies of both economic and technical aspects. With respect to interest rates, approval is not given if the spread is more than 1 3/4 per cent over LIBO or U.S. prime rate. However, in the case of transactions over US\$10 million, the limit is 1 1/2 per cent. The authorities can require adjustment of the proposed interest rate of any transaction, when they deem it necessary, as a precondition for permitting a bank to issue the letter of guarantee. Also, the authorities undertake a careful scrutiny of prices of machinery in order to prevent price-padding, and they can require price adjustments as another precondition.

In the Philippines the authorities have set up a comprehensive set of approval criteria for different types of transactions. In all cases the interest rate must not exceed the prime rate in the lending country, or the LIBO rate in the case of euro-currency loans, by more than 2 per cent, except for government borrowing, where the law requires even lower interest rates. The minimum repayment terms vary by purpose and size of transaction from three years and up to 12 years. A minimum grace period is only required for export-oriented industries, where the authorities require a grace period of at least three years. However, a grace period concept is beginning to creep into other types of transactions as well, because of the statutory debt service ceiling. The Central Bank will not allow repayment to take place if this would lead to the ceiling being exceeded, and therefore implicitly prescribe a grace period. The policy is that repayments should not begin until plants begin operating and sales proceeds are collected. As a result, the authorities will also prefer capitalization of interest payments during the grace period.

Approval is not granted if the proposed project expands capacity in an industry designated as overcrowded, or if the applicant firm (or its principal officers and stockholders) is in arrears with a government financial institution or with a commercial bank.

Within these approval criteria the authorities operate a set of priorities. The highest priority is given to export-oriented projects, the next to projects approved by the Board of Investment, the third to nonexport-oriented industries that do not utilize domestic credit resources,^{1/} the fourth to labor-intensive industries, and the fifth to industries leading to geographic dispersion, i.e., industries located outside the metropolitan Manila area.

Prepayment of foreign borrowings is generally not permitted. Charges such as service, commitment, guaranty, and other incidental fees are approved on a case-by-case basis, provided that the amount or the rate of the fee or charge is reasonable. As a rule, domestic firms are also required to put up equity capital equal to one third of their external borrowings. The trend of recent applications to the Central Bank indicates that foreign lenders are relenting both on the question of grace periods and on the interest rates.

3. Statistical reporting requirement

In most countries the statistical reporting of foreign debt obligations is a function of the control and approval system employed. For loan transactions that do not require approval by the authorities, there is nevertheless a reporting requirement, such as for private, nonbanking sector borrowing in Indonesia. In borrowing countries with exchange control, registration is required in order to ensure permission to effect remittance of interest and principal payments, as is the case in the Philippines. It should be noted, however, that the existence of approval and/or reporting procedures does not necessarily mean that the authorities normally process all the data available to them.

^{1/} Domestic credit resources refer to all credit availments of any kind from any governmental or private banking or financial institution, or other private sources in the Philippines.

In Indonesia the availability of data on foreign borrowing is strictly tied to the approval procedures for certain types of loan transactions. At present the Central Bank regularly receives a number of reports which permit compilation of the following data:

- (1) A statement of the long-term debt arising within the framework of the Inter-Governmental Group on Indonesia (IGGI);
- (2) A statement of the foreign exchange denominated assets and liabilities of each of the Indonesian foreign exchange banks;
- (3) A statement of the loan and deposit liabilities of resident foreign exchange banks to other resident and nonresident banks;
- (4) A statement of the debt of state and regional enterprises;
- (5) A partial statement of the foreign debt of investors registered under the Domestic and Foreign Private Investment Laws; and
- (6) A statement of the lending and depositing activities in Indonesia of the head offices and branches of banks having approved representatives in Indonesia.

While the Indonesian regulations contain a reporting requirement also for such private nonbanking sector foreign borrowing that does not require approval by the authorities, the regulations for such reporting procedures have not yet been issued, and no such reporting takes place at the moment. The authorities are, however, in the process of working out these procedures. But the view is that it will be difficult to get the private sector to report in full, since there is no exchange control in Indonesia and the reporting requirement can therefore not be tied to any transfer guarantee.

In contrast to Indonesia, where the control system does not permit complete recording of all capital transactions, the combination of exchange control and approval and reporting requirements in both Korea and the Philippines provides the authorities with essentially complete external debt data.

The Korean approval and control system enables the authorities to undertake a complete recording of all external debt transactions, by both the public and the private sectors. The Philippines has a comprehensive reporting system which permits the Central Bank to produce on a monthly basis a complete set of data on all categories of foreign obligations, both short-term and of longer maturities, including fixed-term as well as revolving credits, of both public and private sectors. The computerized recording system includes output tables with classification of the debt according to maturities, creditor country or institution, industry, guarantee status, and currency of denomination; it also includes a monthly schedule of debt service obligations on disbursed debt.

Cost of Euro-Currency and Alternative Loans^{1/}

1. Introduction

The use of euro-currency loans depends upon the availability and terms of alternative sources of finance. The convenience of using one or the other type of loans cannot be judged directly unless a common method of measurement is applied. In this note the present values of debt service payments are used as a common measure as it provides a stock figure for discounted debt service (DDS) which incorporates the costs and their distribution over time. For this purpose, a rate of discount of 10 per cent is adopted.

The DDS for a single loan is directly related to the interest rate paid, and inversely related to the maturity and grace periods of the commitment. It can be observed that for constant maturity and grace periods, DDS increases as interest rates increase. For given interest rates and grace periods, present values are higher for shorter maturities; the same is true if grace periods are reduced. In addition, the DDS is affected by the currency in which it is denominated. An appreciating currency relative to the numeraire currency (in this note, the U.S. dollar) is reflected by an increase in the future payments and correspondingly in their present value. The converse is true in the case of depreciating exchange rates.^{2/}

Variable interest rates (the euro-currency case) introduce an element of uncertainty which requires the use of expected values rather than actual interest rates. The information on the expected value has to be supplemented by information on the probable range of fluctuations of the rate. A large variance may reduce the incentive to use a fluctuating interest loan, even if the expected rate is lower than a fixed-rate loan. Variable exchange rates enter into the calculus in a similar way. A priori, there is no obvious choice in the presence of uncertainty. Broadly speaking, the debtor is expected to substitute higher average costs for expected larger variance, i.e., the higher the expected interest rate on a loan, the lower the degree of variance the borrower will be ready to accept.

For comparing values of different loans, it is useful to start with a "standard" one and to express alternative loans in terms of an "effective" interest rate. An interest rate can be found which when applied

^{1/} Prepared by Mr. C. Loser (ETR).

^{2/} As an illustration, the DDS for a one dollar loan with a maturity of ten years, no grace period, and an interest rate of 7 per cent is 0.88. When a rate of currency appreciation of one per cent per year is assumed, the value increases to 0.91 and to 0.95 in the case of an annual 2 per cent increase. A yearly depreciation of 2 per cent under these terms results in a DDS of 0.83.

to a loan with the same maturity and grace period as the standard one, gives a DDS value equal to the DDS on the loan to be compared. The following example illustrates this concept.

If the standard loan has a 7 per cent interest rate, ten years' maturity, and a three-year grace period, its DDS is 0.87. If the loan to be compared has a 3 per cent interest rate, seven years' maturity, and one year's grace, its DDS is 0.76. The comparison can then be made directly on the basis of present values. Alternatively, it can be estimated that a loan with the same maturity (ten years) and grace period (three years) as the standard loan and an interest rate of 5 per cent has a DDS of 0.76, which is equal to the second loan discussed. Thus, it can be said that the second loan has an "effective" interest rate of 5 per cent compared to the standard 7 per cent loan with the same terms. The same type of reasoning can be applied when changes in the exchange rate are introduced.

To summarize, it can be observed that there is: (1) the possibility of comparing different loans by using the present value of the future stream of costs or alternatively the "effective" interest rate; and (2) the presence of uncertainty in the values of interest and exchange rates requires the introduction of expected values and degree of variance in the analysis. The existence of forward exchange markets reduces the problem of variability at the beginning of each renewal period for revolving loans but the cost of forward cover is reflected in a higher effective interest rate.

2. Ex post relative cost of alternative loans

In this section, the discussion centers on the behavior of interest rates in the euro-dollar market compared to an alternative non-dollar loan, specifically a DM alternative. Information on euro-currency market interest rates for the period 1967-73 is used for six-month intervals together with exchange rates for the deutsche mark for the same period. Using these data, the present values of four types of loans are compared. All loans represent a disbursement of US\$1. The interest and exchange rates cover the period from June 1967 to December 1973.^{1/} Interest is paid semiannually and the principal is amortized at the end of the final period. The loans are as follows:

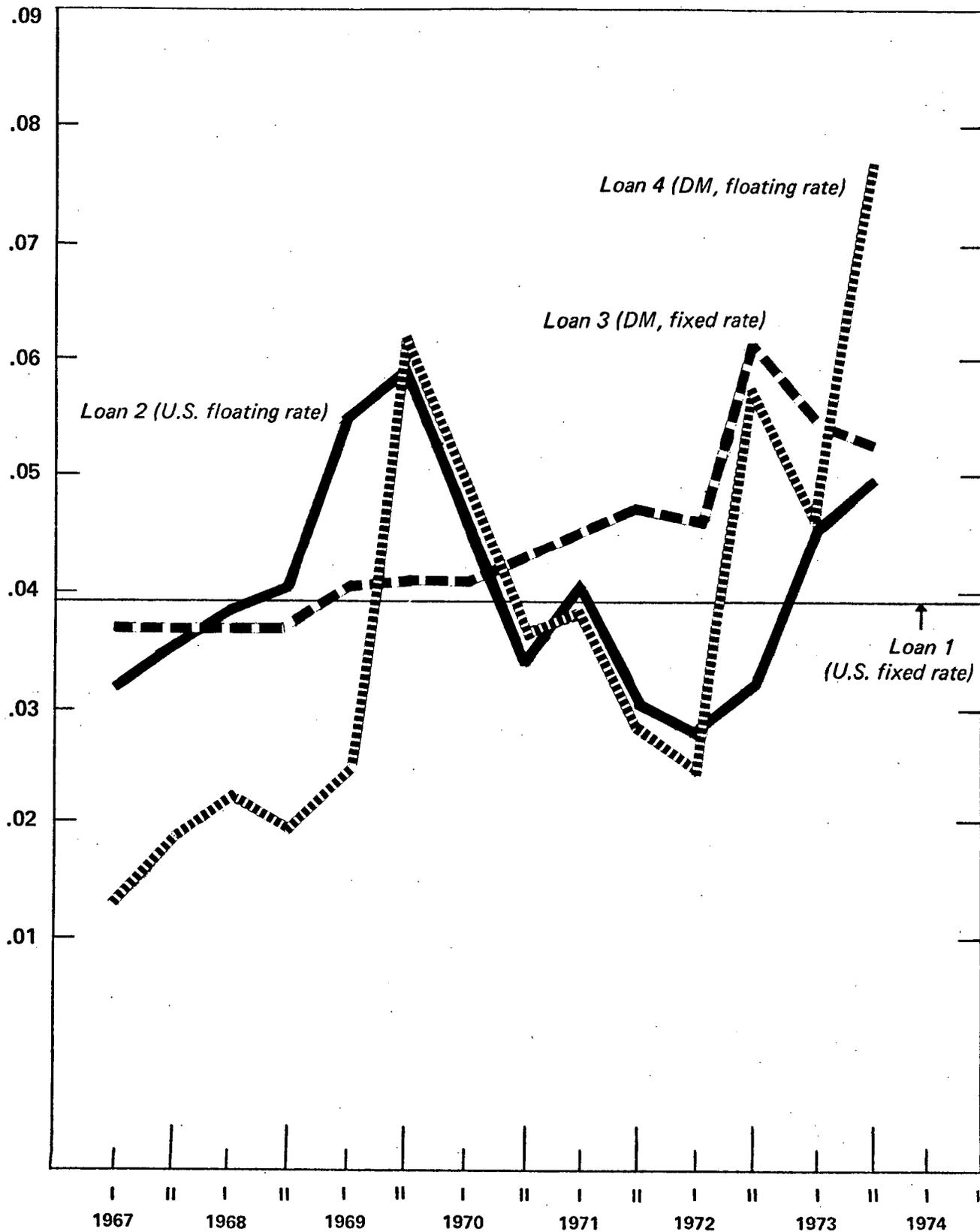
a. Loan 1.

A fixed-interest rate US\$ loan. The average six-month euro-dollar deposit rate for the period under analysis, 7.87 per cent, is applied.

^{1/} No consideration is given in the case to risk premia for these loans; they are introduced in the next section.

CHART I
INTEREST PAYMENTS FOR ALTERNATIVE LOANS (1967-73)

Semi-annual interest payments



b. Loan 2.

A floating interest rate US\$ loan. Euro-currency interest rate for six-month deposits is applied.

c. Loan 3. A floating interest rate loan denominated in deutsche mark. As euro-deutsche mark interest rates are not available for the entire period, these rates are estimated to be equal to the interest rate for euro-dollar loans minus the forward premium for deutsche mark in similar periods. No forward cover is assumed.^{1/} The cost of the loan takes explicitly into account the possibly lower interest rates for an appreciating currency, i.e., the deutsche mark in that period.

d. Loan 4. A fixed-interest rate loan denominated in deutsche mark. The interest rate is equal to the average of the calculated interest rates for euro-deutsche mark loans, 7.37 per cent.

The flow of payments every six months (excluding the repayment of principal) is shown in Chart 1, with the dollar-denominated fixed-interest rate loan used as a standard. The floating interest rate dollar loan repayments fluctuate around the stream of the fixed-rate loan, while the payments for the fixed-interest deutsche mark loan increase as a consequence of the deutsche mark revaluation over the period. The fluctuating interest-deutsche mark loan is affected by changes in parity and in interest rates; the payments in general follow the trend of the dollar loan but increase over time as the deutsche mark increases in value. The present value for each of the alternative loans at the beginning of the period is shown in Table 6 together with the effective interest rate. The effective interest rate is stated in terms of Loan 1, a fixed-interest rate with seven years' maturity. It can be observed readily that Loans 1 and 2 are very similar and have the lowest cost of the loan alternatives while Loan 4 is the most expensive. However, different distributions of the interest rates over time may result in different present values, for similar average interest rates; this problem is ignored. It appears that the fluctuation in interest rates per se does not substantially affect the cost of borrowing; the level of the average rate for the period is more important in this respect. The denomination of the loan in terms of an appreciating currency, i.e., the deutsche mark, increases the effective interest rate unless it is assumed that forward cover fully offsets the interest rate differential.

^{1/} Under the explained interest rate assumption, the cost of a forward covered euro-deutsche mark loan will be equal to that of a euro-dollar loan. Differences will occur only if the forward exchange rate does not completely cover the differential between interest rates for the two types of loans.

Table 6. DDS and "Effective" Interest Rates
for Various US\$1 Loans

Loan	DDS	Effective Interest Rate
Loan 1 (U.S. dollars, fixed-interest rate)	0.894	7.82
Loan 2 (U.S. dollars, floating interest rate)	0.893	7.80
Loan 3 (deutsche mark, floating interest rate)	1.070	11.48
Loan 4 (deutsche mark, fixed-interest rate)	1.145	12.97

3. Ex ante relative cost of alternative loans

A comparison of the costs and benefits of alternative future loans requires that explicit account be taken of uncertainty in the case of floating interest rate loans, the different maturities and alternative expected rates of change in exchange rates, and the effect these changes have on DDS and effective interest rates. It was mentioned earlier that a "high" variance of the interest (or exchange) rate would increase risk and, consequently, ex ante costs for a loan subject to those conditions. The increased cost cannot be computed directly, but the expected variance gives a clue as to whether the increase is significant; this is shown in the following discussion. Various loans are presented in order to illustrate the points, and differ somewhat from those presented in the previous section.

a. The standard loan is assumed to be an IBRD-type with 7.25 per cent interest, 15 years' maturity, 5 years of grace, and denominated in U.S. dollars. No uncertainty exists in this loan.

b. The next alternative is a euro-dollar loan with a floating interest rate. The expected value of the rate is set equal to the average six-month euro-currency deposit rate for the period 1969-73; with an increase of one per cent in the interest rate to account for a margin over LIBO the variance for the rate in the same period is computed. The interest rate is equivalent to an annual 9.25 per cent and the

variance, 4.34.^{1/} Several maturities are covered: (1) a 15-year loan with five years' grace (similar to the standard loan); (2) a 10-year loan with five years of grace; and (3) a 5-year loan with a single repayment. All are assumed to have similar interest rates.

c. A fixed-interest rate loan but assuming alternative rates of appreciation and depreciation. The interest rate is assumed to be 8.25 as in case b. and assuming a subtraction of a one per cent point in the interest rate for each percentage point of expected appreciation of the currency in which the loan is denominated. The converse is assumed in the case of an expected depreciation. This reflects the negative correlation existing between the expected rate of change in the exchange rate and the rate of interest.^{2/}

In the case of the floating interest loan b., the expected variance is included by computing an upper and a lower limit for the interest rate. These are set equal to the average interest rate plus and minus one standard deviation (σ), which provides an assumed measure of possible fluctuations in the costs of the loan in terms of the DDS and effective interest. Expected values are not necessarily equal to the historical average and variance, as is assumed here, and will depend on the expectations in the various exchange markets. Nonetheless, this method gives a first approximation to the problem.^{3/}

The statistics for the various cases are summarized in Table 7, DDS, interest rate, effective interest rate (using a 15-year, 5-year grace period loan as the standard), and grant element per dollar of loan. It can be observed that the values for the euro-dollar loans show a considerable dispersion with respect to the average rate. The judgment on how that dispersion affects future costs determines the convenience of these loans compared to the fixed-interest loan. The effect of declining maturities is also shown in the table. The fall in maturity to ten and five years increases the costs, as measured by the DDS and effective interest rate, except when the interest rate exceeds the discount rate. The expectation of currency appreciation leads to an increase in the DDS and the effective interest rate; the converse is true for an expected depreciation of the currency in which the loan is denominated. When the interest rate is adjusted to account for the possible change in exchange rates, the difference in the values for DDS and effective interest rate, compared to the standard loans, are substantially reduced. This

^{1/} In a more complex and sophisticated analysis, one could think of a behavioristic equation for the interest rate and compute the expected interest rate and its variance, according to regression analysis. As an intermediate step, the method can be applied to the trend.

^{2/} The example approximates the negative correlation by assuming a one per cent point change in the interest rate to compensate a one per cent expected change in the exchange rate, with opposite signs, to provide the same DDS. The actual relation is slightly different.

^{3/} In case the distribution of the observations is not normal, its shape has to be taken into account, besides the average and the variance.

Table 7. Costs for Alternative Types of Loans

	Maturity	Grace Period	Interest Rate (Per cent)	Effective Interest Rate (Per cent)	Present Value of Payments (Dollars)	Grant Element (Dollars)
IBRD loans	15	5	7.25	7.25	0.83	0.17
Euro-dollar loans						
Loan 1	15	5				
Average rate			9.25	9.25	0.95	0.05
Average plus standard deviation			11.33	11.33	1.08	-0.08
Average minus standard deviation			7.17	7.17	0.83	0.17
Loan 2	10	5				
Average rate			9.25	9.37	0.96	0.04
Average plus standard deviation			11.33	11.13	1.07	-0.07
Average minus standard deviation			7.17	7.58	0.85	0.15
Loan 3	5	4				
Average rate			9.25	9.55	0.97	0.03
Average plus standard deviation			10.33	10.81	1.05	-0.05
Average minus standard deviation			7.17	8.27	0.89	0.11
Denominated in foreign currency						
Appreciating currency	15	5				
One per cent, no interest adjustment			9.25	10.19	1.01	-0.01
One per cent, with interest adjustment			8.25	9.15	0.95	0.05
Two per cent, no interest adjustment			9.25	11.21	1.07	-0.07
Two per cent, with interest adjustment			7.25	9.04	0.94	0.06
Depreciating currency	15	5				
One per cent, no interest adjustment			9.25	8.21	0.90	0.10
One per cent, with interest adjustment			10.25	9.27	0.96	0.04
Two per cent, no interest adjustment			9.25	7.56	0.84	0.16
Two per cent, with interest adjustment			11.25	9.41	0.96	0.04

1/ Effective interest rate in terms of a 15-year loan with 5 years' grace.

likely behavior of the interest rate and the possibility of forward cover decrease the attractiveness of loans denominated in the numeraire currency (U.S. dollars).

The results of this section confirm the findings based on past experience. The main new element is the presence of an expected variance in some of the variables that leads to a range of possible costs rather than a single value. This variance has to be compared, together with the expected value, with the DDS (or effective interest rate) of a fixed-rate loan. Changes in the exchange rate affect the costs of the loans substantially and make loans denominated in other currencies more or less attractive; but this is not the case when interest rates reflect the possible changes in exchange rates. The element of uncertainty in the key variables reduces the clarity of decisions, particularly when it is recognized that the historical evidence gives no basis for predicting developments in the credit and exchange markets.