World Financial Markets

Morgan Guaranty Trust Company of New York

March 22, 1973

Foreign-exchange market developments

Confidence in the exchange-rate structure remained fragile in the wake of the Paris meetings of finance ministers and central bank governors. Trading volume was moderate, as the exchange markets were in a state of uneasy calm and market participants adopted a wait-and-see attitude. There was some uncertainty about the actual steps taken and caution about additional actions that may yet be announced. Also, eyes were focused on the forthcoming meetings of the deputies and finance ministers of the Group of 20.

Nevertheless, the dollar was somewhat stronger and well above its low of early March. On a trade-weighted average basis, the dollar's depreciation from Smithsonian central rates *vis-à-vis* fourteen major currencies declined to 6.40% on March 22 from a high point of 7.67% on March 2 and 6.84% on March 16. Based on parities existing prior to June 1970, the dollar's devaluation was some 17% against the currencies of fourteen major countries and about 13% with respect to the world as a whole.

The recent firming of the dollar, as reflected in the March 22 average, was mainly against the European currencies. This was related principally to the introduction of new exchange controls. For example, France reinstated the prohibition against increases in banks' net liabilities to nonresidents, this time with a base date of February 28. The authorities also moved to prohibit the payment of interest on franc-denominated nonresident deposits held with French banks and to raise to 100% the required minimum reserves against such deposits, which may well force the banks to quote a negative rate of interest. German banks, subjected to a similar 100% reserve requirement, in fact charge a negative interest rate even though this is not mandatory. The Dutch central bank moved directly to achieve this result by requiring that, effective March 26, Dutch commercial banks charge a commission of ¼% per week (over 12% per annum) — with a possibility of an increase to 2% weekly — on nonresident guilder balances in excess of those held on average in the first two weeks of February. Belgium and Sweden adopted similar regulations.

Effective March 21, the Spanish monetary authorities split formerly-convertible peseta holdings into two new accounts with drastically cur-

Table 1

Cost differential to U.S. banks between Euro-dollars and domestic sources of funds [a]

Euro-dollar cost higher (+) or lower (–) in basis points

1973 periods ended [b]	*Short Euro-dollars vs. Fed. funds*	*3-month Euro-dollars versus domestic CDs* [c]
Jan 31	–11	+14
Feb 7	+10	+57
14	+162	+46
21	+241	+80
28	+402	+131
Mar 7	+343	+162
8	+250	+148
9	+212	+148
12	+75	+73
13	–25	+55
14	+113	+25
15	+56	+52
16	+75	+59
19	+75	+40
20	+100	+65
21	+113	+53

a assumes no reserve requirements on Euro-dollar borrowing

b based on weekly averages of daily rates through March 7, daily rates thereafter

c cost of domestic CDs adusted for 5% reserve requirements and FDIC assessment

tailed convertibility, for the purpose of stopping external borrowing for conversion into pesetas. Both accounts earn no interest and are subject to 100% reserve requirements.

Some nonresident depositors' efforts to avoid the negative interest rates being charged in several countries — by selling spot and buying forward — helped to cause very high forward exchange rates for the European currencies concerned.

One factor that prevented the dollar from improving further was the continued unfavorable spread between U.S. and Euro-dollar deposit rates. As shown in Table 1, there was a considerable narrowing of the margin between rates for both very short and three-month maturities. In fact, on occasion in the week beginning March 12, some Euro rates were below U.S. market rates. This may have encouraged U.S. banks to increase Euro-dollar redeposits from their overseas branches, as these rose by nearly $500 million in the two weeks to March 14. However, in more recent days spreads again widened, mainly because of a decline in the Federal funds rate as the U.S. money market awaited the response of the Committee on Interest and Dividends to the latest prime rate increase by a number of banks, and a sharp rise in Euro-dollar interest rates related to month- and quarter-end liquidity requirements.

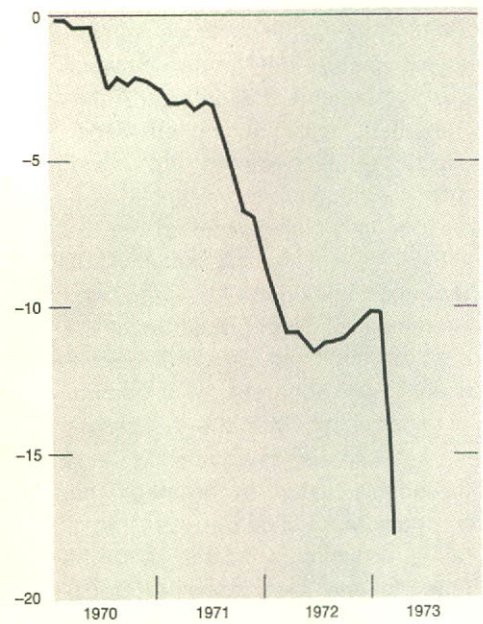
There should be appreciable scope for reflows of interest-sensitive funds, once the effective cost of obtaining funds in the United States rises above the effective cost of borrowing in the Euro-dollar market. A very substantial part — perhaps as much as half — of the estimated $12-billion official-settlements deficit recorded so far in 1973 was caused by the outflow of short-term interest-sensitive funds. As indicated in the March 16 Paris *communiqué*, inducements to money reflows to the United States may be forthcoming. The U.S. authorities are considering measures such as a significant reduction in the 20% reserve requirement on U.S. banks' Euro-dollar borrowings from their overseas branches and the elimination of withholding tax on interest and dividends paid to foreign holders of U.S. securities. In view of the increasing monetary tightness in the United States and the fact that money-market rates are above the Regulation Q interest-rate ceilings for CDs with maturities of ninety days or more, such steps could induce an appreciable reflow of short-term funds.

Apart from the foregoing factors, the foreign-exchange markets were dominated by numerous remaining uncertainties about the "joint float" of certain European currencies *vis-à-vis* the dollar. The joint float amounts to a maintenance of central rates — following a period of independent floating — and narrow, 2¼% maximum margins of fluctuation among the currencies of Germany, France, the Netherlands, Belgium-Luxembourg and Denmark, none of which are maintaining a fixed trading relationship with respect to the dollar. The Swedish krona, Norwegian krone, and Finnish markka, while not EEC currencies, also will be kept within the narrow band.

The currencies of the United Kingdom, Ireland and Italy continue to float independently, rather than within the reconstituted EEC snake. Special political and economic problems apparently still are too great to permit inclusion of the pound and the lira in the snake at this time. The 3% revaluation of the German mark was designed to alleviate centrifugal forces operating on the snake. However, even with less than complete EEC member participation there remains the potential for strains between the strongest and the weakest currencies in the group.

Effective dollar exchange rate vis-à-vis 14 major currencies

*percentage change from pre-June 1970 parities, weighted according to bilateral trade**



*based on monthly average of daily rates through 1972

Under these circumstances, it may be asked how much joint there is in the float and how much float in the joint. That is, how much strain can the snake tolerate and what are the consequent limits of its flexibility in regard to the dollar? Intervention to maintain participant EEC currencies within their 2¼% band is being conducted in those currencies, while intervention in dollars is permitted in order to influence the relationship of the snake to the dollar. For example, during the first few days after official exchange markets reopened the mark was at the bottom of the snake and the Belgian franc, as well as the Swedish krona, at the ceiling. The German authorities sold francs and krona — which they presumably borrowed — to maintain the narrow band. Accordingly, Germany will on the settlement date (probably at the end of April) be required to transfer reserves to Belgium and Sweden.

The mark's position at the bottom of the snake was quite acceptable to the German authorities, who probably would prefer to lose reserves in order to reduce domestic liquidity, rather than to see the mark decline. Sweden and Belgium, on the other hand, may not have welcomed this reserve gain, as the former took additional measures to limit capital inflows.

Another question about the snake is the extent to which consistently strong-currency countries now are committed to support weak currencies. It is clear that, while progressively reduced margins of fluctuation and — ultimately — a common EEC currency remain the objective, further adjustments in the central rates of Community currencies are not ruled out in the event that fundamental payments disequilibrium should become apparent.

Perhaps the greatest uncertainty surrounds the new relationship between the dollar and the snake — the amount of float in either direction that will be tolerated. The old, 4½% Smithsonian tunnel has been discarded, but what has taken its place? A joint float is an intermediate stage, or compromise between essentially free floating — with intervention only to maintain orderly markets as in Canada and England — and fixed rates — with mandatory intervention at the Smithsonian margins — so that there still is room for some intervention. As the Paris *communiqué* stated dryly, each nation ". . . will be prepared to intervene at its initiative in its own market, when necessary and desirable, acting in a flexible manner in the light of market conditions . . ." In view of the absence of firm commitments, the question is when will Europe intervene and when will the United States intervene, and in what amounts?

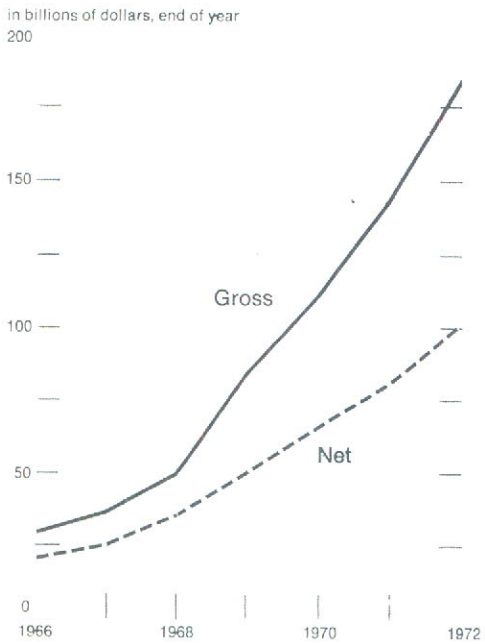
It may be that the Europeans would prefer to intervene, by selling dollars, when the dollar is strong, so as to diminish their official dollar holdings and facilitate the management of domestic liquidity. But they also may be prepared to buy dollars, to limit any upward pressure on the currencies in the snake. Alternatively, U.S. authorities may buy foreign currencies when the dollar is strong or sell foreign currencies when it is weak. Since the United States at present owns only a very limited amount of foreign currencies, intervention on anything more than a very modest scale will require borrowing under the "swap lines." To be sure, it seems likely — at least for the time being — that U.S. intervention will be only moderate, and designed mainly to maintain orderly markets.

So-called currency swap — or reciprocal currency — arrangements are in effect mutual lines of credit between the United States on one hand and fourteen foreign countries, plus the Bank for International Set-

Chart 2

Estimated size of the Euro-currency market

based on the foreign-currency liabilities of banks in Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom, the Bahamas, Canada, Japan, and Singapore



tlements, on the other hand. At present, such lines aggregate $11.73 billion, but the Paris *communiqué* indicated that some of the bilateral lines might shortly be increased. When the United States takes the initiative in activating a swap line, it acquires foreign exchange which it can add to U.S. reserves or utilize immediately for exchange-market intervention. The other party to the currency swap obtains, in return, dollars which have been sold forward to the Federal Reserve Banks — i.e., on which the exchange risk is covered. Upon maturity of the credit, normally after three months, the U.S. authorities are required to honor the swap (forward) contract by providing the foreign currency in the amount initially supplied or, in some cases, by renewing the arrangement or financing the obligation in another fashion.

At times when the dollar is weak, foreign countries may well prefer that U.S. authorities take on much of the responsibility, for two reasons. First, there is a desire to shift to the United States some of the exchange risk and cost of intervention, through the mechanism described above. The second reason why other countries desire U.S. action is the presumed psychological impact on the exchange markets of evidence that the United States is likely to support the dollar more vigorously than in the past.

Assessment

The immediate objective of the measures decided upon in Paris last week is to restore confidence in the international monetary system, halt the dollar outflow, and — hopefully — bring about a reflux of capital to the United States. What now are the prospects for a reflow of short-term funds and a diminution of the $73 billion in U.S. liabilities to official foreigners? The experience of 1972 and the deterioration of market credulity in recent months suggest that any such reflow may be gradual and modest. Evidence of progress toward reform of the monetary system could prove a favorable factor, as might a further narrowing or reversal of the differential between Euro-dollar and U.S. interest rates. But capital flows now are very sensitive to the functioning of the adjustment mechanism. In the final analysis, a convincing turnaround in the U.S. current-account balance will be required to induce a large and sustained reflow of funds. Under the best of circumstances this is unlikely to be apparent for a number of months, so that the exchange-markets' patience again will be thoroughly tested. In the meantime, a considerable degree of uncertainty is likely to persist, and the markets may be somewhat preoccupied with adjusting to the new environment of numerous floating exchange rates, additional exchange controls, and less-predictable official intervention.

Euro-currency market developments

The Euro-currency market continued to expand at a rapid pace last year. The estimated net size of the Euro-currency market increased by about 25%, to more than $100 billion at the end of 1972, from an estimated $80 billion at the end of 1971 (see chart 2). The U.S. dollar component (i.e. Euro-dollars) increased to an estimated $80 billion at the end of 1972 from about $65 billion at the end of the previous year. Strong demand placed on the Euro-currency market in connection with recent foreign-exchange market turmoil has led to a further expansion of the market so far this year.

The estimates given here are on a net basis, in that they exclude interbank deposits. These estimates are based on data on the gross foreign-currency liabilities of banks in nine major European countries, Canada, the Bahamas, Panama, Japan, and Singapore. Most Euro-currency transactions pass through banks located in these countries. The gross foreign-currency liabilities of banks in these countries increased to about $185 billion at the end of 1972, from $143 billion at the end of 1971. Their gross U.S. dollar liabilities increased by approximately $35 billion, to $145 billion at the end of 1972, while their gross liabilities in other currencies, particularly German marks and Swiss francs, increased by roughly $7 billion, to about $40 billion. The continued growth of nondollar deposits in the market was encouraged by restrictions — such as prohibitions of interest payments or on acquisitions of domestic money-market instruments, or even negative interest rates in the case of Switzerland — imposed by a number of European countries on nonresident holdings of their domestic currencies.

The term Euro-currency as used in this context — i.e., dollars and other currencies deposited in banks located outside the countries of the respective currencies — is increasingly a misnomer in that the banks are not necessarily located in Europe. Close to 21% of the gross foreign-currency liabilities outstanding at the end of 1972 were in banks outside of Europe, compared with about 18% two years earlier.

Europe still is the largest center for Euro-currency banking — for taking of deposits and making loans in foreign currencies. Banks in nine major European countries (Belgium, France, Germany, Italy, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom) reported gross foreign-currency liabilities of nearly $148 billion at the end of 1972. Banks in the United Kingdom alone accounted for $82 billion, or 55%, of the European total, indicating that London remains the leading Euro-currency market center.

However, there has been a rapid growth, particularly during the past few years, in the Euro-currency business of banks located outside of Europe. Banks in Canada have carried on a sizable Euro-currency business since the early 1960s, and by the end of 1972 their total foreign currency liabilities amounted to nearly $10 billion. Since 1969, a growing Euro-currency business has been conducted through banks in the Bahamas. The Bahamas branches of U.S. banks had Euro-currency liabilities totaling $12 billion at the end of October 1972. In recent years, other centers of Euro-currency activity have developed, notably in Japan and Singapore. Banks in Japan had nearly $7.5 billion of foreign-currency liabilities to nonresidents at the end of 1972, plus approximately $5.5 billion of foreign-currency deposits from the Japanese government and its agencies. And, by the end of 1972, foreign-currency deposits in banks in Singapore reached approximately $3 billion.

The growth and proliferation of Euro-currency centers outside of Europe reflect the importance of proximity — in physical terms as well as in relation to time zones — between banks and their customers for purposes of developing new business and as relates to competition among banks. This trend also reflects efforts by banks to find localities where the regulatory, tax, and political climates are most conducive to the profitable expansion of their Euro-currency business. The authorities in some countries have adopted measures specifically de-

signed to encourage banks to engage in Euro-currency activities.

Some of the newer centers of Euro-currency business are likely to continue expanding at a fairly rapid pace, and there may well be a further proliferation in the future. Japanese banks, for example, are aggressively expanding their international lending activity, aided by the emergence of Japan as a sizable capital exporter. The Singapore market, which is discussed in a subsequent section, also is likely to expand further, given regional demands for financial services, and general confidence in the country's economic, social, and political stability. On a much smaller scale, Panama, which also is discussed in a subsequent section, has emerged as a regional Euro-currency center in recent years.

A major source of deposit growth in the Euro-currency market has been central banks and governments. Last year, they placed an additional $10 billion or so in the Euro-currency market, bringing their total deposits at yearend to between $25 billion and $30 billion, or more than 25% of the market's net size. While the central banks of the Group of Ten countries plus Switzerland agreed in mid-1971 not to add directly to their holdings of dollars in the Euro-currency market, the central banks and governments of other countries invested in the Euro-currency market a substantial portion of the approximate $13-billion increase in their foreign-exchange reserves last year. The central banks and governments of these countries, which include some industrial countries as well as a substantial number of developing and oil-producing countries, were apparently attracted by the generally higher rates of return obtainable in the Euro-currency market relative to those available in the United States and other national money markets.

In addition to funds directly deposited in the Euro-currency market by central banks, the latter from time to time have indirectly channeled funds into the market. Last year, for example, Japanese authorities deposited an additional $3 billion of dollars — bringing the total to $5.5 billion, as noted earlier—with the country's exchange banks, which in turn used the dollars either to reduce their foreign-currency borrowings abroad, or to increae their foreign-currency loans and other assets abroad. Earlier, U.K. authorities had swapped dollars from their reserves. These official swap assets, which reached about $2.3 billion at the end of 1971, were taken back into official reserves during 1972. Thus all together, funds directly or indirectly placed in the market by central banks and governments accounted for more than half of the increase in the net size of the market last year.

The increase in central bank deposits in the Euro-currency market has added to the rapid growth of official international liquidity. This is because dollars deposited in the Euro-currency market by a central bank are likely to be re-lent and in a subsequent transaction to be exchanged for another currency, with the same or another central bank ending up with the dollars again. Accordingly, the problem of excessive growth in international liquidity resulting from the large U.S. balance-of-payments deficit has been exacerbated by the additional international liquidity that is created when central banks deposit their reserves in the Euro-currency market.

There were some shifts in the pattern of lending activity last year. Particularly notable was the large increase in Euro-currency lending to the developing countries, many of which borrowed in the market for the first time. The amount of publicly-announced new Euro-currency

bank credit facilities for developing countries more than doubled from $1,350 million in 1971 to $2,800 million in 1972. More than 40% of all publicly-announced credits last year went to developing countries, compared with approximately 10% and 35% shares in 1970 and 1971, respectively. Of course, there were many other Euro-currency bank credits to these and other areas that were not publicly announced.

Eastern European borrowers also tapped the Euro-currency market on a much larger scale last year. For example, new publicly-announced credit facilities made available to borrowers in Eastern Europe increased from about $65 million in 1971 to $475 million in 1972. Last year also witnessed a further increase in lending for major project financing, such as for the exploration and development of North Sea oil and gas fields.

Loan demand from some of the traditionally large borrowers in the market, particularly companies in Europe, was considerably reduced. In part this reflected relatively sluggish economic activity and rapid domestic monetary expansion in several major European countries, especially during the first half of the year. Even though economic activity accelerated toward the end of the year, business capital investment generally lagged. Moreover, in a number of instances, European countries tightened their exchange controls to discourage capital inflows, including foreign borrowing by residents. For example, in Germany the authorities imposed the *Bardepot* — a 50% reserve requirement against foreign borrowings — to discourage domestic companies from borrowing externally. In fact, in 1972 German companies actually reduced their outstanding short-term foreign borrowings by almost $2 billion.

Last year U.K. residents, however, substantially increased their foreign-currency borrowing — by nearly $2 billion in the twelve months ended in mid-January 1973 from banks in the United Kingdom alone. Some of this borrowing was to finance direct and portfolio investment abroad by British companies and institutional investors, and some of it was related to the high cost of borrowing domestically. In the second half of last year, Italian state enterprises again borrowed heavily in the Euro-currency market to offset capital outflows to the market by other Italian residents, and toward the end of the year Italian banks were induced to increase their net foreign-currency liabilities.

There was also a substantial increase in the usage of Euro-dollars in the United States last year. The liabilities of U.S. commercial banks to their own foreign branches remained fairly low due to the 20% reserve requirement on such liabilities above a certain base level. However,the U.S. agencies and branches of foreign banks, which are not subject to any such required reserve, increased their liabilities to their head offices and branches abroad by more than $2½ billion, mostly during the last five months of the year when interest rates for Euro-dollars with very short maturities were lower than Federal funds rates and other U.S. money-market rates.

The Euro-currency market is again the subject of intensive study by monetary authorities, partly as a result of its role as a channel for, but not the ultimate cause of, recent massive short-term capital flows. Officials at the recent monetary meeting in Paris agreed to undertake further studies of "methods of reducing the volatility of these markets." In particular, they proposed to study limitations on the placement of official reserves in the market by the central banks of the IMF member countries, and the pos-

Table 2

Singapore Asian dollar market

year end	number of authorized banks	gross foreign currency liab. in millions of U.S. dollars
1968	1	31
1969	9	123
1970	14	390
1971	19	1 063
1972	25	2 976

sible need for reserve requirements comparable to those in national banking markets.

Regarding the former, officials of the 14 countries participating in the Paris meeting agreed to withdraw "gradually and prudently" their own placements in the Euro market. These amounted to more than $3 billion at the end of last year. Efforts to persuade other countries to limit or withdraw their placements in the market may prove difficult. Moreover, withdrawal of official funds from the Euro-currency market alone would not overcome the problem of transfers of official reserves from one currency to another in response to interest-rate differentials or in anticipation of exchange-rate changes.

The imposition of reserve requirements on banks' foreign-currency liabilities (or assets) would limit the ability of Euro banks to offer attractive deposit and lending rates since it would cause a widening of the spread between deposit and lending rates in order to cover the additional costs implicit in the maintenance of reserve requirements. The United States and Germany presently are the only major countries that impose such requirements. To be effective, reserve requirements not only would have to be large enough to impair the market's attractiveness but would have to be imposed uniformly on banks in all countries and territories. Otherwise, Euro-currency business would shift from one location to another. In practice, it would be exceedingly difficult to get all countries to cooperate. And, a partial implementation would only serve to fragment the Euro-currency market, and drive it to places where it might be less subject to the admonitory supervision of major central banks. Furthermore, the imposition of reserve requirements on Euro banks could result in disintermediation — i.e., direct dealings between principals, with banks acting at most as agents or brokers — or the development of new types of intermediaries. Also, there is no reason to assume that the imposition of reserve requirements on Euro banks would significantly deter short-term capital flows at times of currency uncertainty.

The Singapore Asian dollar market

Singapore has developed into an important regional center for Euro-currency activity in recent years. Although commonly known as the Singapore Asian dollar market, this center in operation closely resembles other Euro-currency market centers. Authorized banks in Singapore, including branches of foreign banks, accept deposits and extend credits in U.S. dollars and other approved foreign currencies.

The Singapore Asian dollar market, established in 1968, has grown rapidly during the past two years. By the end of 1972, gross foreign-currency deposits in Singapore had increased to nearly $3 billion, and the number of banks licensed to conduct such business had risen to 25 (see Table 2).

Why Singapore?

The need for an international financial center in Southeast Asia stems from several factors. Foremost among these is the rapid economic growth achieved during the last decade by a number of countries in the region. The stabilized political and economic situation in Indonesia, as well as that country's openness to foreign investment and its excellent long-term growth prospects, add to the regional demand for sophisticated financial services. Movement toward peace in Vietnam increases

prospects for political detente, and for augmented trade and investment opportunities in the countries of mainland Southeast Asia. The practical dissolution of the sterling area also adds to the need for more financial facilities in the area, since financing from within the sterling area has become less available to those Southeast Asian countries with sterling area ties.

Although the need for financial services in Southeast Asia has increased rapidly, the region is located far from the world's major financial markets. Furthermore, Southeast Asia does not have the long history of strong financial relations with Europe and the United States that certain other areas of the developing world have had. Financial institutions actually located in Southeast Asia, therefore, have a major advantage over those in Europe or the United States in developing local deposit sources, in identifying appropriate borrowers, and in assessing regional political and economic trends.

Singapore's role as a regional financial center is enhanced by the time element. Working hours there begin only 1½ hours after the start of working hours in Tokyo, and 3½ hours after offices open in Sydney. More important, Singapore working hours overlap 1½ hours with London, permitting direct daily contact with European financial markets during regular working hours. The same is not the case for Hong Kong or Tokyo.

The evolution of Singapore as the major Southeast Asian center for Euro-currency activity has a certain historic logic. A long-time focus of *entrepôt* trade, the country is well known for its capacity to provide commercial services, and for the familiarity of its businessmen with the Southeast Asian region. This background makes an important contribution to the country's credibility as an international financial center. It is important to note, however, that Singapore's new role does not entail large-scale use of the Singapore dollar as an international transactions currency. Rather, the Singapore Asian dollar market is primarily an *entrepôt* market which, for the most part, is kept separate from the domestic economic and financial structure.

Also contributing to Singapore's attractiveness as an international financial center is the fact the country enjoys a well-ordered formal political structure, a social system that is not subject to frequent disruption, and good economic management. Prime Minister Lee Kuan Yew's People's Action Party has held power since 1959. It has won parliamentary elections in 1963, 1968 and 1972. Thanks to large public programs aimed at housing, health care and social security, social friction does not pose serious problems. The economy has performed very well. Annual GNP growth has averaged 13.4% since independence in 1965, inflation has been held to an average of 1.6% per year over the same period, and official international reserves have risen steadily to their December 1972 level of $2 billion.

Regulatory framework

The Singapore authorities have established a regulatory framework that is both permissive enough to attract funds from international sources, and yet is sufficiently circumspect to guard against excesses that could undermine public confidence.

The Asian dollar market began in October 1968 when the authorities decided to allow certain banks in Singapore to accept deposits from, and make loans to, nonresidents in non-sterling area foreign currencies. A key prerequisite for the market's further development

was met in late 1969 when the government abolished a 40% withholding tax on interest paid to nonresidents on deposits in approved foreign currencies.

To facilitate supervision by the Singapore authorities, authorized banks were required to establish separate bookkeeping units, called "Asian Currency Units" (ACU's), for their foreign-currency business. In 1970, the government established the Monetary Authority of Singapore (MAS). MAS, which began operations on January 1, 1971, performs all the functions of a central bank except that of currency issue. In particular, it licenses the banks permitted to participate in the Asian dollar market, sets capital and personnel requirements for market participants, and oversees the market's orderly development. MAS has given special attention to the quality of the banks entering the Asian dollar market, and has insisted specifically that they be staffed with qualified personnel.

In 1972 MAS took several important steps to further the market's development. In January, a requirement that banks hold short-term assets equal to 20% of their foreign-currency deposits was abolished. In March, in a move calculated to stimulate the secondary market for deposit instruments, the stamp duty of 1/10% of face value on certificates of deposit and bills of exchange was removed. In October, it was announced that the income tax rate on profits from banks' foreign-currency loans to foreign nonbanks would be reduced from 40% to 10% as of January 1973.

The separation of Singapore's domestic financial market from the Asian dollar market was relaxed somewhat in May 1972 when authorized banks were permitted to make foreign-currency loans to locally incorporated firms, whether owned by residents or nonresidents, against export orders or letters of credit. The separation of the markets was further relaxed in June when insurance companies and approved provident and pension funds were authorized to invest up to 10% of their funds in Asian dollar deposits and approved Asian dollar bonds.

In addition to the establishment of a favorable regulatory framework for the Asian dollar market, the Singapore authorities have also taken some directly stimulatory measures. In December 1971, the Development Bank of Singapore floated a $10-million, 8½%, ten-year bond issue. While the borrower did not particularly need the funds, and while the money was generally recognized as expensive, it was considered desirable to broaden the instruments available for investment, and to establish a precedent for future offerings in the Singapore market. A second bond offering, a $20-million, 7¾%, 15-year issue, was made in November 1972 by the Singapore Government. The reasons for this issue were similar to those for the first, and have already borne fruit; it was announced recently that the Korean Development Bank will offer in Singapore half of its planned $20-million, 12-year bond issue.

The banks and their business

The number of banks licensed to conduct an Asian dollar business, and thus required to establish ACUs, has increased steadily since 1968, reaching 25 by the end of 1972. Five of these were local commercial banks, and 20 were affiliated with, or branches of, foreign financial institutions. Early this year, the Singapore authorities announced that applications soon would be accepted for foreign bank branches licensed to conduct all Asian dollar transactions, but only certain kinds of local Singapore dollar business.

At the end of 1972, more than 90% of the nearly $3 billion of

foreign-currency deposits in Singapore banks was denominated in U.S. dollars. The non-dollar deposits — mostly external sterling, German marks, and Swiss francs — accounted for a much smaller share of the total than is the case in European Euro-currency market centers.

Approximately 30% of total deposits was from nonbank (or commercial) sources. Most of these nonbank deposits came from multinational and regional businesses. Several central banks in the region have deposited funds in the Singapore market, although the amounts are thought to be fairly small. The remaining 70% of the total was interbank deposits, both from other banks in Singapore, and from banks in other Euro-currency market centers. The share of interbank deposits in the total has risen during the last two years, partly because regional loan demand has grown faster than nonbank deposits. In addition, the number of banks participating in the market has nearly doubled in the last two years, and the new participants have had to rely on deposits from banks in other Euro-currency market centers until regional nonbank deposit sources can be developed.

The average maturity of deposits in the Singapore Asian dollar market is believed to be somewhat shorter than in other Euro-market centers. Interest rates on deposits are closely linked to those in London. Minor differences, rarely exceeding ⅛%, do occur. During the morning and early afternoon hours when London is still closed, banks in Singapore generally base their rates on the previous day's closing rates in London. If the sentiment in London changes overnight, a difference will exist between afternoon rates being quoted in Singapore, and opening rates in London. Then, when trading between Singapore and London commences, the difference is quickly ironed out.

Many of the banks active in the Asian dollar market do not have a long history of close relationships with potential borrowers in the region. As a result, some of the funds gathered in the region have been redeposited in banks in London. With the passage of time, however, increased familiarity of banks with the region, and increased understanding of the market by regional borrowers, have made possible an increased share of commercial loans in the banks' total foreign-currency assets. As of late 1972, that proportion was on the order of one-fifth. This fraction, however, understates the amount of commercial lending out of Singapore, in that several of the major banks having other branches in the region provide funds from Singapore for commercial loans booked elsewhere.

Until mid-1971, the Singapore Asian dollar market was a net lender of funds to Euro-currency centers in Europe. As a result, the charge was often heard in Southeast Asia that the market provided a conduit for funds to flow from the developing countries of the region to the industrialized world. This criticism may have had some validity during 1969 and 1970, when interest rates in Europe were very high and when regional sources of deposits were developed more rapidly than regional loan opportunities. By mid-1971, however, declining interest rates in Europe, an improved investment climate in some Southeast Asian countries, and banks' increased knowledge about loan potential in the region, had resulted in a reversal of the picture, with Singapore becoming a net taker of funds from Europe. Of course, patterns of sources and uses of funds vary widely from bank to bank, with deposits from, and loans to, regional nonbanks being more highly

developed by banks long established in Southeast Asia than in the case of new arrivals.

Banks with well-established relationships with multinational firms are now making medium-term loans from Singapore on a regular basis. Thus far there have been two major publicly-announced syndicated bank credits. The Private Investment Corporation for Asia received a $10-million, four-year loan in December 1971, at a rate of ¾% over the six-month Singapore interbank offered (SIBO) rate. In May 1972, a $27.5-million, seven-year syndicated loan was made to Brunei LNG — a consortium of Shell, Japanese, and Government of Brunei interests — at a rate of 1% over SIBO. In addition, Singapore banks increasingly may be expected to take part in major syndications arranged elsewhere.

To allay concern that interest rates in the Singapore Asian dollar market might not be competitive, rates for the Private Investment Corporation of Asia loan were based on the rates of six reference banks, three in London and three in Singapore. The rates are determined by averaging the interbank rates of the three Singapore reference banks, unless the average rate quoted by the three London reference banks is more than ¼% below SIBO. In actual fact, however, the Asian dollar rates have remained very close to Euro-dollar rates in London. The general consensus, therefore, is that such a safeguard is not necessary for the future.

The Singapore Asian dollar market seems at this point reasonably well established. As more local non-bank sources of funds are developed, and as more lending opportunities within the Southeast Asian region are uncovered, the market's existence will become increasingly secure. Not to be underestimated, furthermore, as a factor contributing to the market's permanence, is the major commitment in funds, facilities and personnel that a large number of leading international banks have made to the Singapore Asian dollar market.

For the future, the precise pattern of the market's development will depend on trends in overall international liquidity, on the pace of economic growth in the Southeast Asian region, and on financial developments in Hong Kong and Tokyo, two potentially competing Asian dollar centers. The Singapore Asian dollar market has already demonstrated its usefulness, however, and Singapore's future role as an important regional financial center seems assured.

The Panama dollar market

Panama also has emerged as a regional center for Euro-currency activity, although on a much smaller scale than Singapore. The situation in Panama is somewhat unique in that since the early 1900s the U.S. dollar has been the major transactions currency in the domestic economy. In recent years, banks in Panama have attracted a substantial amount of deposits from foreign sources, especially from elsewhere in Latin America, and they have made a sizable amount of loans to foreigners. Moreover, since Panama is the place of incorporation for a number of offshore operating and financing subsidiaries of foreign corporations, some of the banks' domestic business has the character of Euro-currency transactions.

The development of Panama as a regional financial center is strongly supported by the government. Banks are subject to very few regulations, and exchange controls are virtually nonexistent, a situation that con-

trasts sharply with that in most other Latin American countries. Bank reform legislation in 1970 led to the creation of a National Banking Commission and to the imposition of minimum reserve requirements, but in practice these have not significantly altered the situation. Interest paid to foreigners on deposits in banks in Panama is not subject to withholding taxes, and the 1970 reform also exempted interest income on foreign loans from taxation. There are now three types of bank licenses, and the paid-in capital required for banks licensed to operate only offshore is one-quarter of that required for banks licensed to operate both domestically and externally.

Today there are 44 banks in Panama, of which 31 are affiliated with foreign financial institutions. As of mid-1972 these banks had total deposits of $1.3 billion, an increase of nearly $1 billion from the end of 1967. Much of this deposit growth has been due to the increase in deposits from foreigners, which reached nearly $800 million at the end of June 1972, compared with less than $100 million at the end of 1967.

About 70% of the foreign deposits was from foreign banks, partly reflecting the funds supplied by foreign banks to their branches and affiliates in Panama for lending. Nonbank foreign depositors include wealthy individuals from other parts of Latin America as well as multinational corporations operating in Latin America.

The interest rates paid on deposits by banks in Panama generally parallel those in other Eurocurrency market centers, although they reportedly vary somewhat from bank to bank. In particular, it is believed that some of the smaller banks, especially those not affiliated with a major U.S. or European bank, offer rates on deposits that are higher than those paid in, say, London or Nassau.

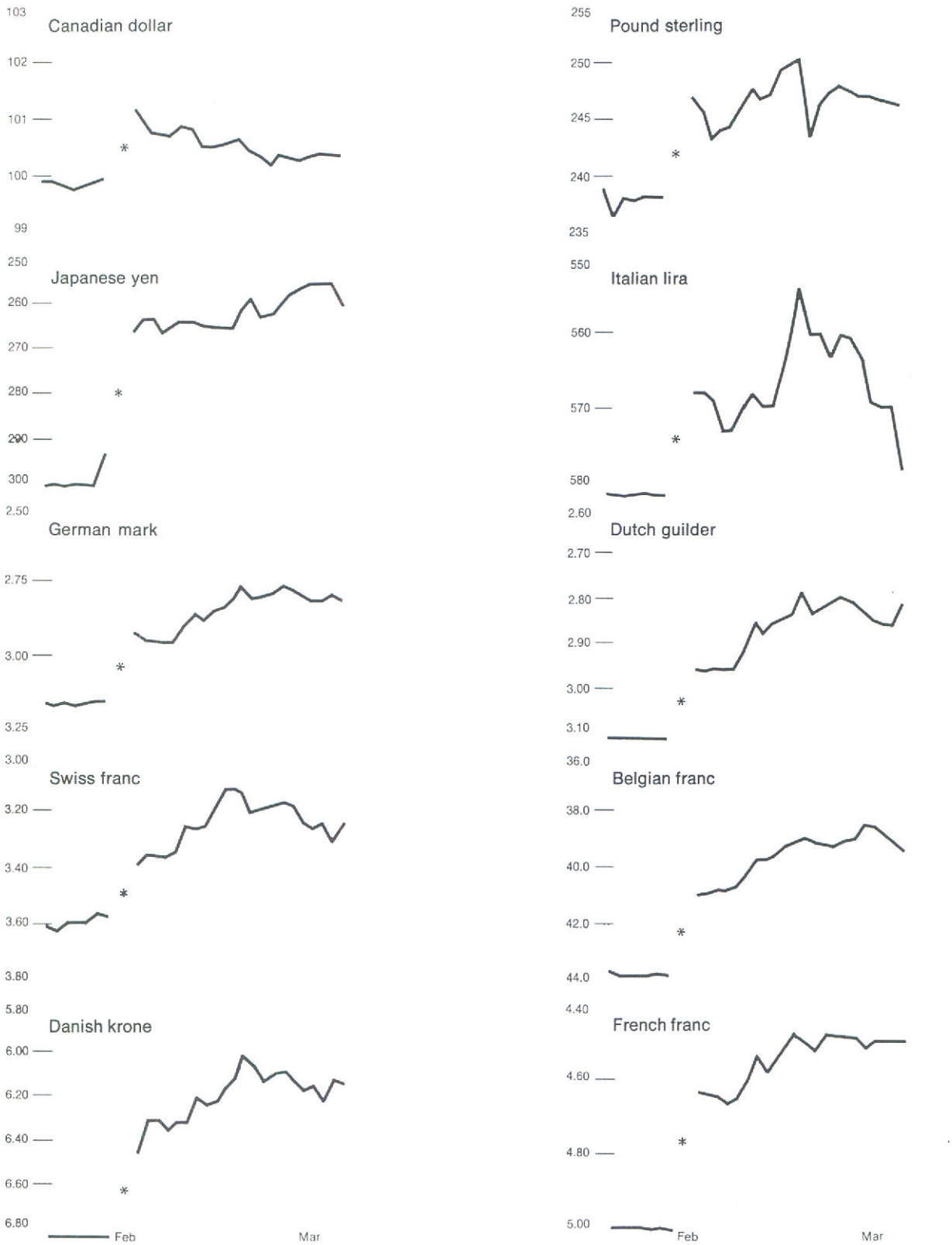
For a number of years the domestic economy, including the government, has been a net borrower of foreign funds. However, by the end of June 1972, U.S. dollar loans to foreigners by banks in Panama rose to an amount equivalent to nearly 60% of the banks' deposits from foreigners. The comparable figure was 30% at the end of 1967 — an indication of the growth of Panama as a regional financial center.

Statistical appendix

for key to data in charts and tables see December 1972 World Financial Markets

Spot exchange rates

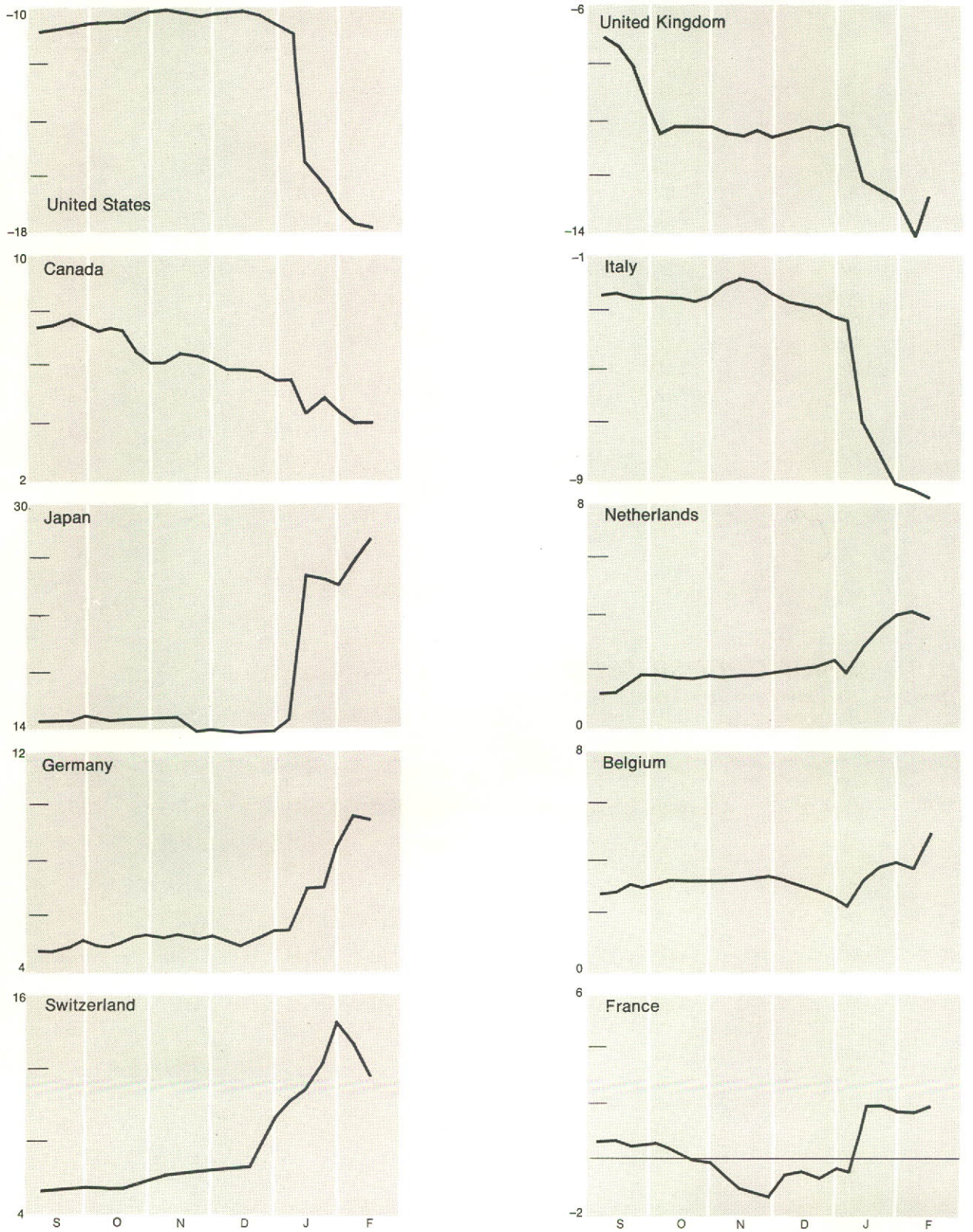
expressed in foreign currency units, except for British pound and Canadian dollar which are expressed in U.S. cents



* *market closed Feb. 12 and 13, 1973*

Effective exchange rates

exchange rate changes vis-à-vis a group of 14 major currencies weighted according to bilateral trade changes from pre-May 1971 parities (pre-June 1970 for Canada), based on weekly averages of daily exchange rates



International bond yields

Long-term issues, at or near end of month

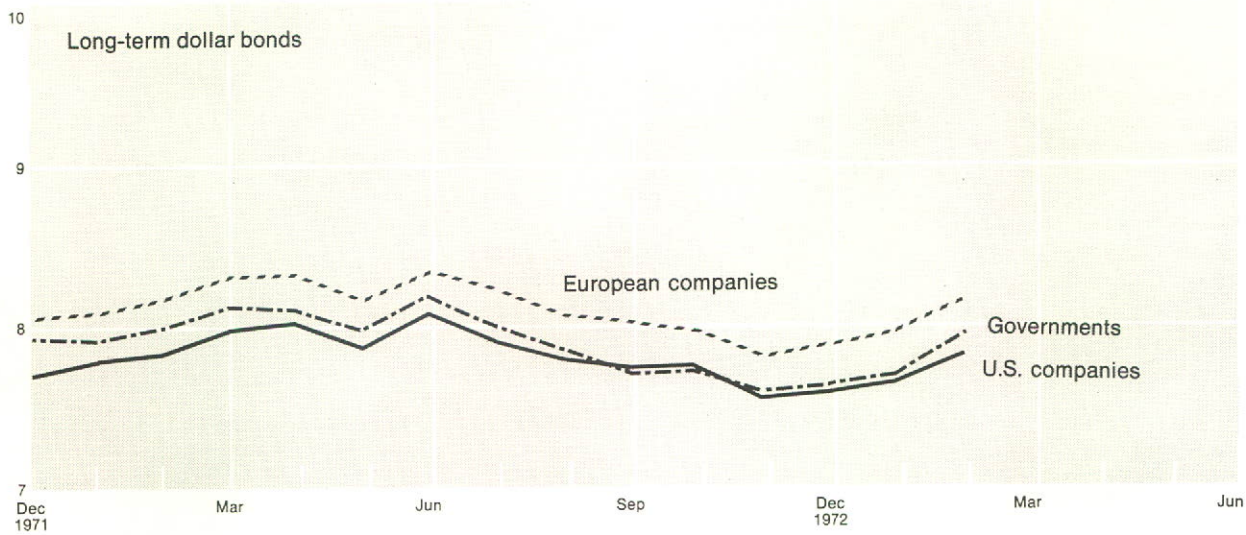
		U.S. companies			European companies		Governments
		U.S. dollar	German mark	Swiss franc	U.S. dollar	German mark	U.S. dollar
1971	*Dec*	7.77	7.51	5.72	8.05	7.75	7.95
1972	*Mar*	7.99	7.09	5.49	8.33	7.51	8.12
	Apr	3.02	7.17	5.53	8.32	7.58	8.11
	May	7.89	6.90	5.49	8.14	7.29	7.98
	Jun	8.10	7.07	5.62	8.36	7.53	8.21
	Jul	7.92	6.94	5.50	8.21	7.27	7.99
	Aug	7.82	6.79	5.55	8.07	7.27	7.85
	Sep	7.76	6.92	5.58	8.03	7.38	7.75
	Oct	7.78	7.13	5.78	7.99	7.51	7.76
	Nov	7.58	7.15	5.95	7.82	7.58	7.58
	Dec	7.62	7.08	5.90	7.91	7.40	7.65
1973	*Jan*	7.66	7.12	5.92	7.97	7.44	7.71
	Feb	7.85	6.91	5.71	8.15	7.27	7.96

Euro-dollar deposit rates

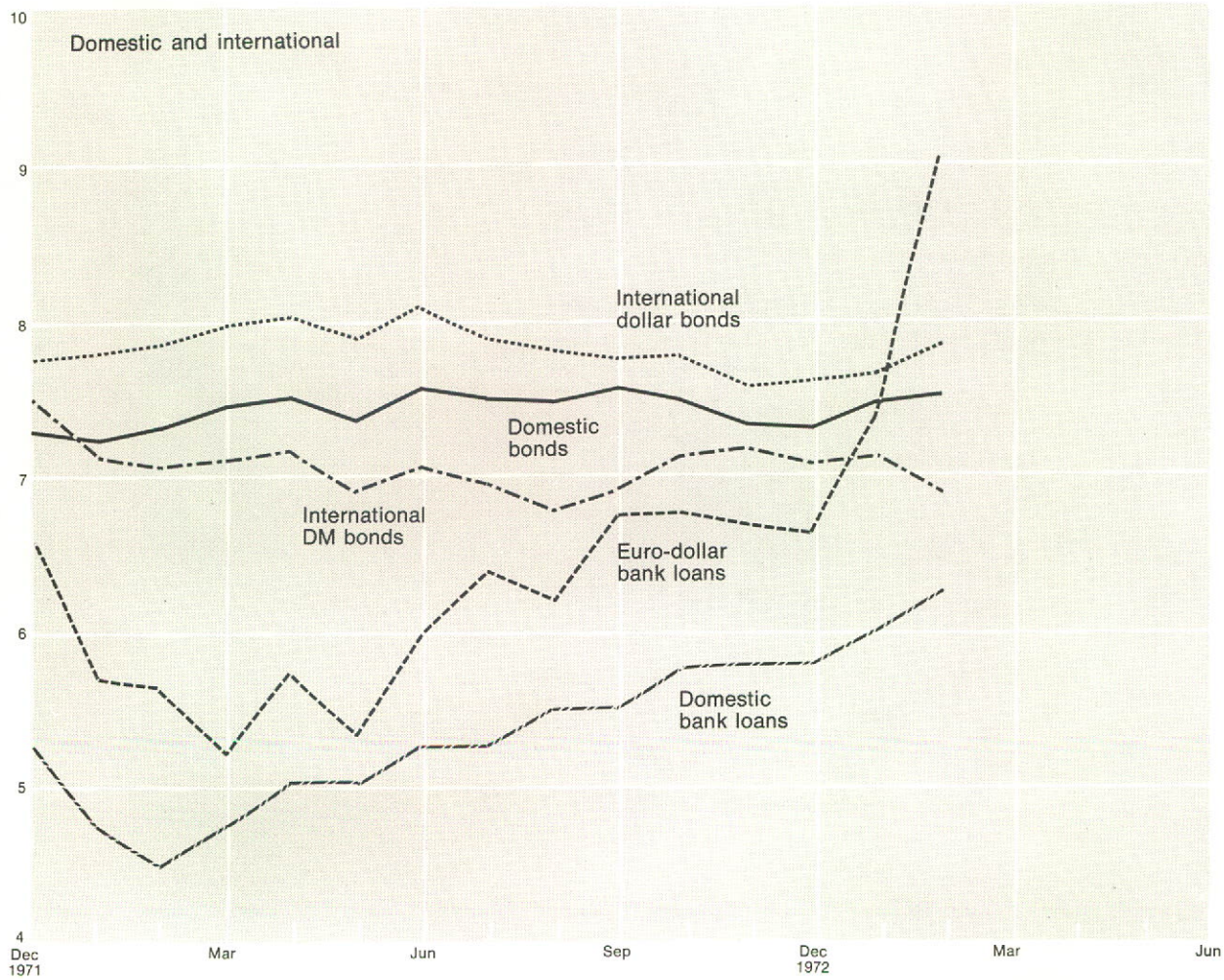
prime banks' bid rates in London, at or near end of month

		Call	7-day notice	One month	Three months	Six months	Twelve months
1970	*Dec*	5.38	5.38	6.19	6.44	6.75	6.75
1971	*Mar*	4.63	4.63	4.81	5.31	5.81	6.25
	Jun	4.63	5.00	5.69	6.50	7.00	7.38
	Sep	5.38	5.63	7.06	7.75	7.75	7.75
	Dec	5.13	5.25	5.75	5.75	5.81	6.00
1972	*Mar*	4.00	4.00	5.00	5.44	5.94	6.38
	Apr	3.88	3.88	4.56	5.00	5.56	6.13
	May	3.88	3.88	4.25	4.56	5.25	5.88
	Jun	4.13	4.13	4.69	5.25	5.69	6.06
	Jul	5.25	5.38	5.50	5.63	6.19	6.25
	Aug	4.50	4.63	5.38	5.44	6.13	6.25
	Sep	4.63	4.63	5.00	6.00	6.13	6.38
	Oct	4.88	4.88	5.00	6.00	6.13	6.50
	Nov	5.13	5.13	5.88	5.94	6.19	6.38
	Dec	5.00	5.13	5.69	5.88	6.19	6.38
1973	*Jan*	6.38	6.63	6.50	6.63	6.75	6.88
	Feb	9.00	9.00	8.50	8.31	8.19	7.94

International bond yields



U.S. companies' borrowing rates



New international bond issues

Issuer (Guarantor) (Euro-bond: E; Foreign bond: F)	Country/state of domicile	Amount, millions	Offer date	Coupon rate a	Maturity	Offer price	Yield b
February 1973							
U.S. Companies							
Sears Overseas Finance N.V. (Sears Roebuck and Company) (F)	N. Antilles	SwF 80	23	6 *a*	1988	100	5.91
International Telephone and Telegraph Corporation (F)	Delaware	FF 200	26	8½ *a*	1988	100	8.33
Cerro International Finance N.V. (Cerro Corporation) (E) c	N. Antilles	$20	n.a.	8	1978	n.a.	n.a.
		$20	n.a.	*	1978	n.a.	n.a.
Chrysler Financial Corporation (E) c	Delaware	$12	n.a.	7½ *a*	1980	n.a.	n.a.
Other companies							
RHM International Finance N.V. (Ranks Hovis McDougall Limited) (E)	N. Antilles	$20	8	8 *a*	1988	99	7.96
Mafina B.V. (Petrofina S.A) (F)	Netherlands	SwF 80	13	6¼ *a*	1988	100½	6.11
BP Canada Limited (E) c	Canada	$25	15	7¾ *a*	1993	n.a.	n.a.
Bass Charrington Limited (E)	U.K.	EUA 30	15	7 *a*	1991	98½	7.03
Trust Houses Group Finance N.V. (Trust Houses Forte Limited) (E) d	Netherlands	$10	26	8 *a*	1985	99½	7.91
State enterprises							
Public Power Corporation (E) d	Greece	$15	6	8 *a*	1988	97½	8.13
Sveriges Investeringsbank A.B. (E)	Sweden	DM 100	13	7 *a*	1988	100	6.88
Oesterreichische Donaukraftwerke A.G. (Republic of Austria) (F)	Austria	DM 80	14	6¾	1988	98½	6.91
Regie Nationale des Usines Renault (E)	France	Leb£ 50	n.a.	7¼ *a*	1985	100	7.12
The Electricity Council (H.M. Treasury) (F) c	U.K.	SwF 200	n.a.	6½ *a*	1978	100	6.40
International organizations							
International Bank for Reconstruction and Development (F) d		Y 10,000	2	6.90	1983	99¼	7.01
European Investment Bank (E)		$75	5	7¼ *a*	1988	98½	7.29
European Coal and Steel Community (F)		SwF 80	7	6¼ *a*	1988	100	6.16
International Bank for Reconstruction and Development (F)		KD 25	12	7	1992	99	6.98

a Coupon interest is payable semiannually unless followed by an "a" which indicates an annual coupon.

b Where coupon interest is payable annually, payment is discounted semiannually for comparability in computation of yield.

c Private placement

d Placed privately in Japan.

* Floats at 1⅛% for 3 years, over the six-month London Euro-dollar interbank rate. The rate will be fixed for the remaining 2 years of the issue.

New international bond issues

Issuer (Guarantor) (Euro-bond: E; Foreign bond: F)	Country/state of domicile	Amount, millions	Offer date	Coupon rate [a]	Maturity	Offer price	Yield [b]
March 1973 — preliminary							
U.S. companies							
Ingersoll-Rand Overseas Company (Ingersoll-Rand Company) (F)	Delaware	SwF 80	6	6 *a*	1988	100	5.91
Other companies							
Amsterdam-Rotterdam Bank N.V. (E) c	Netherlands	Fl 60	2	6¼ *a*	1980	99½	6.34
Vizcaya International N.V. (Banco de Vizcaya) (E)	Netherlands	$40	5	*	1978		
I.C.I. International Finance Limited (Imperial Chemical Industries Limited) (F)	Bermuda	SwF 80	15	6 *a*	1988	100	5.91
State enterprises							
Port Authority of Jamaica (E) d	Jamaica	$14	1	6¾ *a*	1988		
Hydro-Electric Power Commission of Ontario (Province of Ontario) (E)	Canada	DM 100	1	6½ *a*	1988	100	6.40
Quebec Hydro-Electric Commission (Province of Quebec) (E)	Canada	DM 100	2	6½ *a*	1988	99½	6.45
Trans-Austria Gasline Finance Company, Ltd. (E)	Bermuda	ASch 250	9	7 *a*	1988	97¼	7.18
South African Iron and Steel Industrial Corporation (ISCOR) (Republic of South Africa) (E)	S. Africa	DM 100	15	7 *a*	1988		
Governments							
City of Oslo (F)	Norway	SwF 50	6	6¼ *a*	1988	100	6.16
City of Laval (F)	Canada	SwF 8	12	6¾ *a*	1988	100	6.64
International organizations							
Inter-American Development Bank (F)		Y 3,000	1	7 *a*	1983	98¾	7.06
European Coal and Steel Community (E) c		Lux 800		7 *a*	1985	99	7.00

a Coupon interest is payable semiannually unless followed by an "a" which indicates an annual coupon.

b Where coupon interest is payable annually, payment is discounted semiannually for comparability in computation of yield.

c Private placement.

d Placed privately in Japan.

* Floating rate.

New international bond issues outside the United States

new issues in period indicated, in millions of dollars

						1973			Jan-Mar	
	1968	1969	1970	1971	1972	Jan	Feb	Mar p	1973p	1972
Euro-bonds, total	**3 573**	**3 156**	**2 966**	**3 642**	**6 320**	**1 005**	**280**	**211**	**1 496**	**1 502**
by category of borrower										
U.S. companies	2 096	1 005	741	1 098	1 977	307	52	–	359	427
Other companies	603	817	1 065	1 119	1 759	466	85	61	612	404
State enterprises	349	682	594	848	1 170	145	68	130	343	323
Governments	500	584	351	479	1 019	79	–	–	79	270
International organizations	25	68	215	98	395	8	75	20	103	78
by currency of denomination										
U.S. dollar	2 554	1 723	1 775	2 221	3 893	730	197	54	981	855
German mark	914	1 338	688	786	1 129	168	35	104	307	328
Dutch guilder	–	17	391	298	393	60	–	21	81	123
Other [a]	105	78	112	337	905	47	48	32	127	196
by type of security										
Long-term straight debt	1 108	1 852	1 995	2 633	4 343	583	228	150	961	1 099
Medium-term straight debt	480	173	733	714	642	135	52	61	248	184
Certificates of deposit	75	–	–	–	115	35	–	–	35	25
Convertible	1 910	1 131	238	295	1 220	252	–	–	252	194
Foreign bonds, total	**1 135**	**827**	**378**	**1 538**	**2 060**	**184**	**308**	**80**	**572**	**511**
by category of borrower										
U.S. companies	139	223	55	200	215	36	68	25	129	47
Other companies	56	128	83	212	345	28	23	25	76	106
State enterprises	12	107	16	163	249	–	86	–	86	30
Governments	317	98	53	254	177	2	–	18	20	–
International organizations	611	271	171	709	1 074	118	131	12	261	328
by currency of denomination										
German mark	674	531	89	308	500	93	27	–	120	186
Swiss franc	238	196	193	669	815	59	129	68	256	193
Italian lira	72	24	–	32	163	–	–	–	–	34
British pound	19	–	12	138	–	–	–	–	–	–
Other [b]	132	76	84	391	582	32	152	12	196	98
by type of security										
Long-term straight debt	956	641	345	1 211	1 963	159	249	80	488	458
Medium-term straight debt	179	120	33	297	97	25	59	–	84	53
Convertible	–	66	–	30	–	–	–	–	–	–
International bonds, total	**4 708**	**3 983**	**3 344**	**5 180**	**8 380**	**1 189**	**588**	**291**	**2 068**	**2 013**

[a] *Includes European unit-of-account, European Currency Unit, and currency option issues.*
[b] *Includes £/$ option issues.*
p *Preliminary*

Central bank discount rates

	1969	1970	1971	1972				Current	
	end Dec	end Dec	end Dec	end Mar	end Jun	end Sep	end Dec	Mar 19 1973	Effective since
United States	6.00	5.50	4.50	4.50	4.50	4.50	4.50	5.50	Feb 26, 73
Canada	8.00	6.00	4.75	4.75	4.75	4.75	4.75	4.75	Oct 25, 71
Japan	6.25	6.00	4.75	4.75	4.25	4.25	4.25	4.25	Jun 24, 72
Belgium	7.50	6.50	5.50	4.00	4.00	4.00	5.00	5.00	Dec 21, 72
France	8.00	7.00	6.50	6.00	5.75	5.75	7.50	7.50	Dec 1, 72
Germany	6.00	6.00	4.00	3.00	3.00	3.00	4.50	5.00	Jan 12, 73
Italy	4.00	5.50	4.50	4.50	4.00	4.00	4.00	4.00	Apr 10, 72
Netherlands	6.00	6.00	5.00	4.00	4.00	3.00	4.00	4.00	Nov 6, 72
Denmark	9.00	9.00	7.50	7.00	8.00	8.00	7.00	7.00	Oct 3, 72
Norway	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	Sep 27, 69
Sweden	7.00	7.00	5.00	5.00	5.00	5.00	5.00	5.00	Nov 12, 71
Switzerland	3.75	3.75	3.75	3.75	3.75	3.75	3.75	4.50	Jan 22, 73
United Kingdom	8.00	7.00	5.00	5.00	6.00	3.00	9.00	8.75	Jan 19, 73
South Africa	5.50	5.50	6.50	6.50	6.50	6.00	6.00	6.00	Aug 9, 72

Day-to-day money rates

monthly averages

	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.97	4.90	4.14	4.55	4.80	4.87	5.04	5.06	5.33	5.94	6.58
Canada	7.78	5.14	3.61	3.51	3.48	3.57	3.63	3.71	3.71	3.77	3.93
Japan	8.25	7.75	5.25	4.00	4.00	4.06	4.19	4.07	4.46	4.69	4.92
Belgium	6.07	5.55	4.10	2.42	2.68	2.21	3.44	3.08	3.75	3.46	3.18
France	10.38	7.48	5.30	3.76	3.72	4.04	5.38	6.38	7.38	7.50	7.83
Germany	8.13	7.50	5.88	2.30	4.70	4.88	6.25	5.75	6.75	5.50	2.25
Netherlands	7.11	6.73	4.91	0.86	0.60	0.54	2.61	3.31	3.20	2.78	1.55
Switzerland	4.75	5.50	0.00	0.00	0.25	0.50	1.25	3.00	4.00	4.75	3.00
United Kingdom	7.64	6.66	4.06	5.50	5.72	5.53	6.28	6.97	6.75	7.95	9.88
Australia	4.40	4.90	5.14	4.44	4.43	4.30	3.90	4.29	4.12	3.86	4.24
South Africa	4.21	4.35	5.72	5.32	4.80	4.63	4.76	4.72	4.39	4.10	4.08
Euro-dollars	10.00	6.97	5.26	4.84	4.81	4.59	4.88	4.97	5.14	5.80	8.38

Treasury bill rates

bond-equivalent yields, at or near end of month

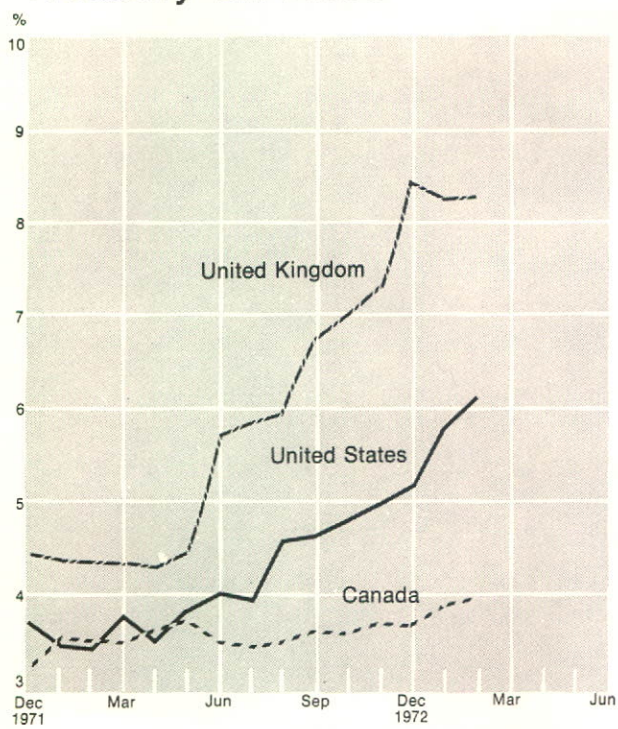
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.28	5.03	3.72	3.95	4.60	4.64	4.80	4.98	5.21	5.81	6.04
Canada	7.81	4.44	3.21	3.46	3.50	3.62	3.57	3.68	3.65	3.90	3.99
Japan	5.94	5.81	5.17	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
Belgium	8.50	6.95	4.80	3.50	3.65	4.20	3.85	4.30	4.80	5.20	5.20
France	10.18	7.73	5.68	4.72	5.11	n.i.	6.30	6.64	7.30	n.i.	n.i.
Germany	5.83	5.83	3.28	2.77	2.77	2.77	3.28	4.30	4.30	4.81	4.81
Italy	5.70	6.57	5.41	5.35	5.53	5.41	5.36	6.50	6.00	6.09	6.20
Netherlands	6.25	6.25	5.00	0.88	0.75	1.63	3.50	4.25	4.25	3.75	2.75
Sweden	8.69	8.42	3.79	4.04	4.04	3.79	3.79	3.02	2.77	2.77	3.03
United Kingdom	7.80	6.95	4.46	5.84	5.96	6.74	7.00	7.28	8.48	8.28	8.29
Australia	4.79	5.65	5.08	4.13	4.13	4.01	3.93	3.93	3.85	3.85	3.85
South Africa	4.42	4.55	6.04	5.39	4.54	5.02	4.98	4.88	4.42	4.24	4.31

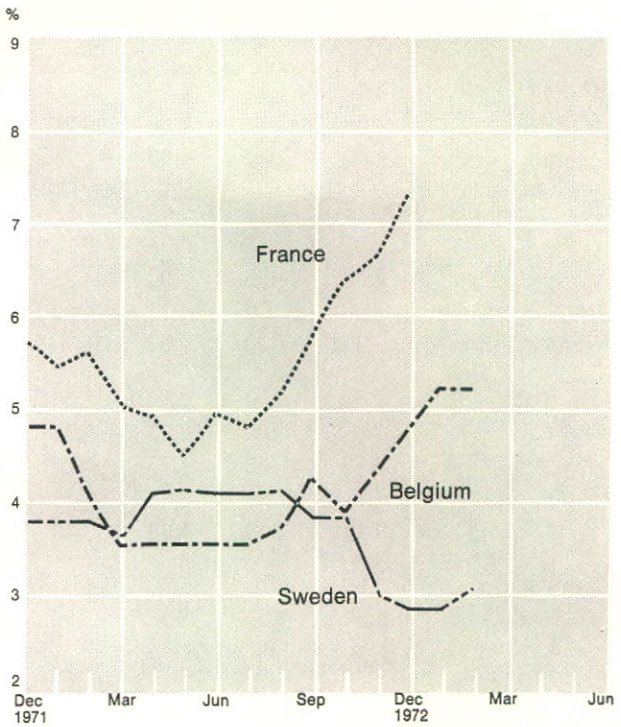
Representative money-market rates

bond-equivalent yields, at or near end of month

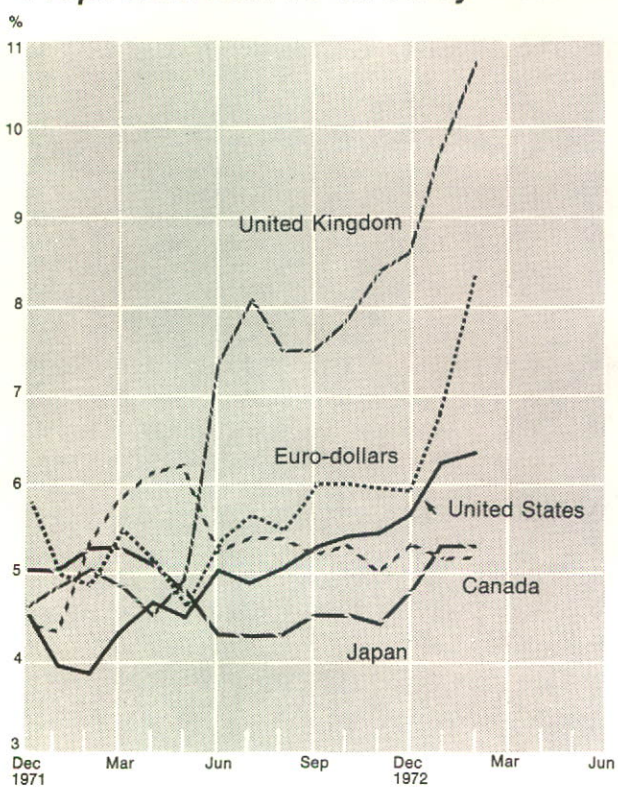
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	9.46	6.05	4.49	4.87	5.01	5.27	5.39	5.39	5.65	6.18	6.31
Canada	9.34	6.09	4.42	5.31	5.31	5.19	5.31	4.94	5.31	5.13	5.13
Japan	8.25	8.00	5.00	4.25	4.25	4.50	4.50	4.38	4.88	5.25	5.25
Belgium	8.75	7.25	5.15	3.90	4.05	4.05	4.25	4.45	4.85	5.50	5.50
France	10.88	7.25	5.75	4.63	4.63	5.25	6.63	7.63	8.00	7.75	8.00
Germany	9.13	8.25	5.50	4.50	5.00	6.38	7.25	8.63	7.75	8.25	8.25
Italy	5.00	7.38	5.50	5.25	5.25	5.25	5.38	5.50	6.00	6.38	6.13
Netherlands	9.00	7.38	5.63	1.13	0.88	2.13	4.13	4.63	4.75	4.50	3.25
United Kingdom	9.13	7.00	4.63	8.25	7.50	7.50	7.88	8.38	8.63	9.75	10.75
Australia	5.75	6.00	6.50	5.50	5.50	5.50	5.50	4.75	4.75	4.75	4.75
South Africa	5.47	7.44	8.68	6.30	5.37	5.68	5.47	5.58	5.47	5.27	5.68
Euro-dollars	10.13	6.44	5.75	5.63	5.44	6.00	6.00	5.94	5.88	6.63	8.31

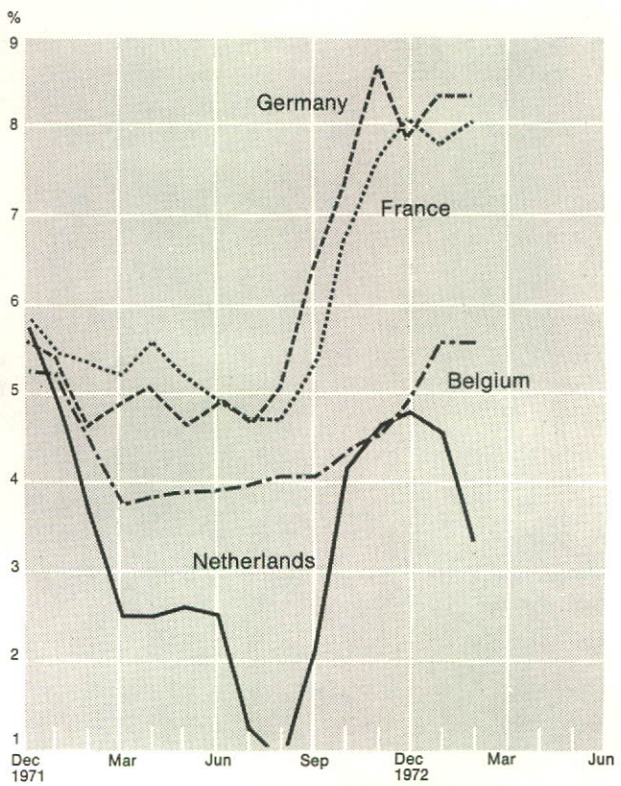
Treasury bill rates





Representative money-market rates





Commercial bank deposit rates

at or near end of month

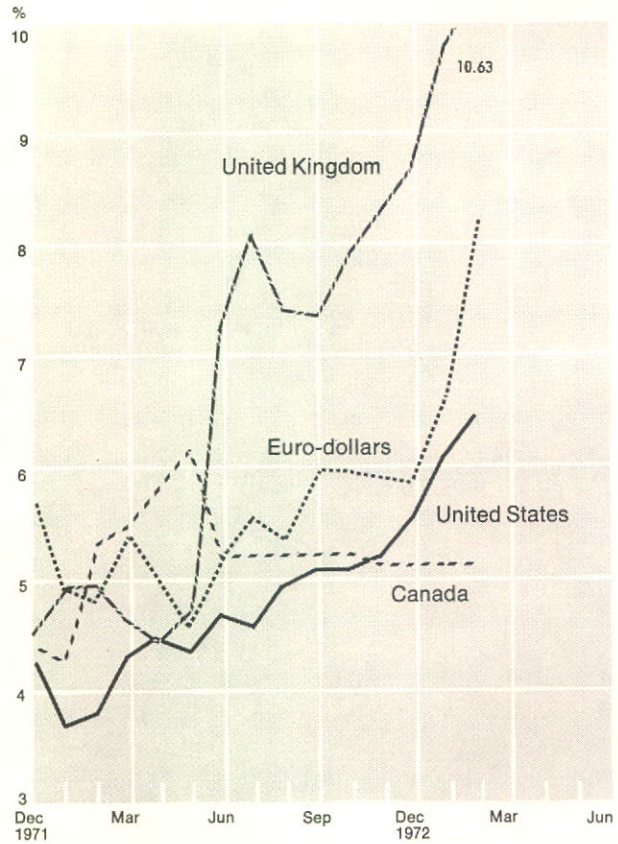
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	6.00	5.63	4.25	4.63	5.00	5.13	5.13	5.25	5.63	6.13	6.50
Canada	7.50	5.50	4.40	5.25	5.25	5.25	5.25	5.13	5.13	5.13	5.13
Japan	4.00	4.00	4.00	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
Belgium	9.25	7.00	5.63	4.50	4.12	4.50	5.63	5.31	5.75	6.00	5.38
France	3.00	6.50	6.75	5.25	5.25	5.25	6.00	6.75	6.75	6.75	7.00
Germany	8.63	7.50	5.00	4.25	4.75	5.75	6.75	7.75	7.25	7.75	7.50
Italy	7.50	6.00	4.75	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Netherlands	9.00	7.00	5.50	1.00	0.75	2.00	4.25	4.25	4.75	4.63	3.75
Denmark	7.00	8.00	6.50	7.00	7.00	7.00	6.00	6.00	6.00	6.00	6.00
Norway	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Sweden	6.75	6.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75	4.75
Switzerland	5.00	5.25	1.50	2.00	1.50	1.50	2.50	4.00	4.00	4.00	4.00
United Kingdom	9.13	7.00	4.50	8.13	7.44	7.38	7.94	8.38	8.81	9.88	10.63
Australia	5.00	5.50	5.50	4.50	4.25	4.00	4.00	4.00	3.90	4.00	4.60
South Africa	5.50	6.00	6.75	6.00	5.00	5.00	5.25	5.25	5.25	5.00	5.00
Euro-dollars	10.13	6.44	5.75	5.63	5.44	6.00	6.00	5.94	5.88	6.63	8.31

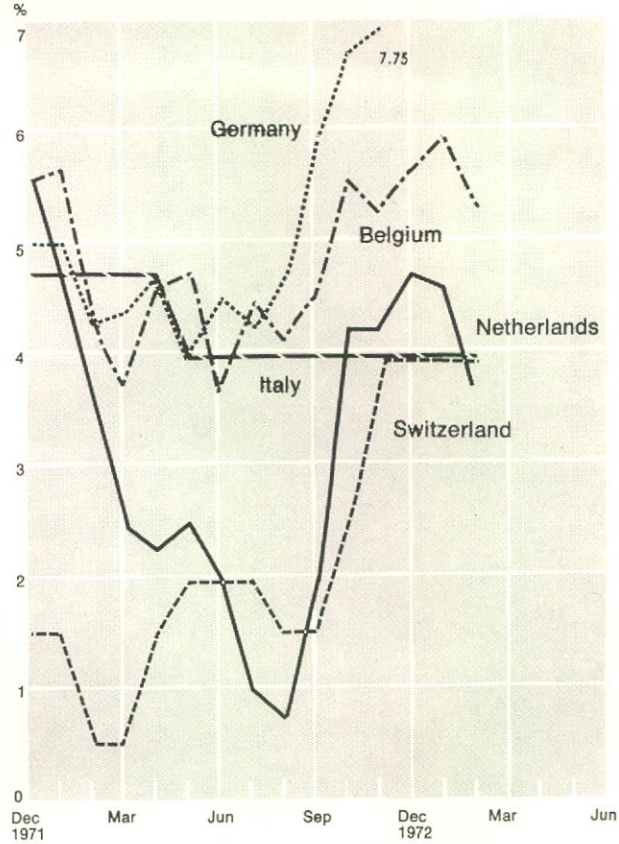
Commercial bank lending rates to prime borrowers

at or near end of month

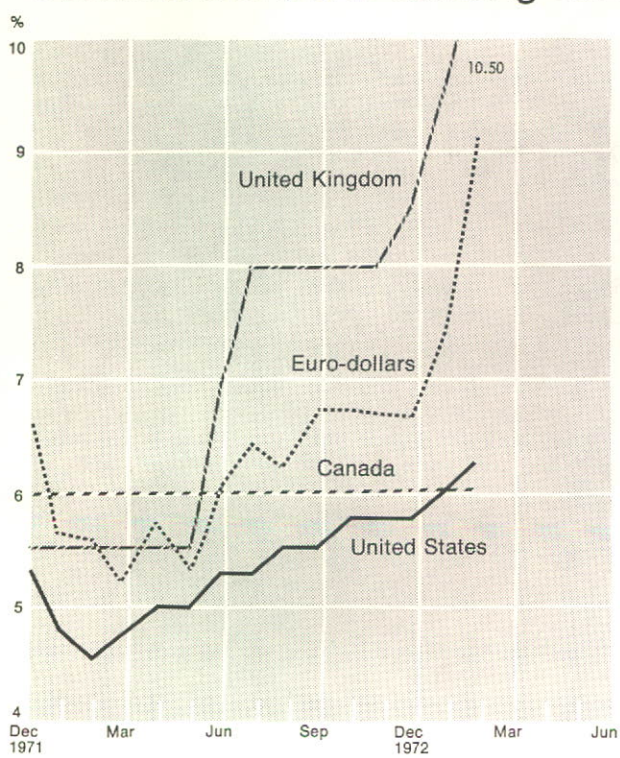
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.50	6.75	5.25	5.25	5.50	5.50	5.75	5.75	5.75	6.00	6.25
Canada	8.50	7.50	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Japan	7.37	7.46	7.10	6.61	6.48	6.40	6.39	6.35	6.33	6.31	6.31
Belgium	10.00	8.50	7.50	5.50	5.50	5.50	6.00	6.00	6.25	6.50	6.50
France	10.35	9.65	8.65	8.15	8.15	8.35	8.35	9.15	9.15	9.15	9.15
Germany	9.00	9.00	7.25	6.25	6.25	6.25	7.50	8.00	8.50	8.50	8.25
Italy	8.25	10.25	8.25	7.25	7.25	7.25	7.25	7.00	7.00	7.00	7.00
Netherlands	8.50	8.50	7.00	6.00	6.00	5.00	5.00	6.00	6.00	6.00	6.00
Denmark	10.50	11.00	9.50	10.00	10.00	10.00	9.00	9.00	9.00	9.00	9.50
Norway	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50
Sweden	9.50	10.00	8.00	7.75	7.75	7.75	7.75	7.75	7.75	7.75	7.75
Switzerland	6.50	7.00	7.00	6.75	6.75	6.75	6.75	6.75	7.00	7.00	7.00
United Kingdom	9.00	8.00	5.50	8.00	8.00	8.00	8.00	8.00	8.50	9.50	10.50
Australia	7.25	7.75	7.75	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25
South Africa	8.00	8.50	9.00	9.00	8.50	8.50	9.00	8.50	8.50	8.50	8.50
Euro-dollars	11.01	7.32	6.63	6.38	6.19	6.75	6.75	6.69	6.63	7.38	9.06

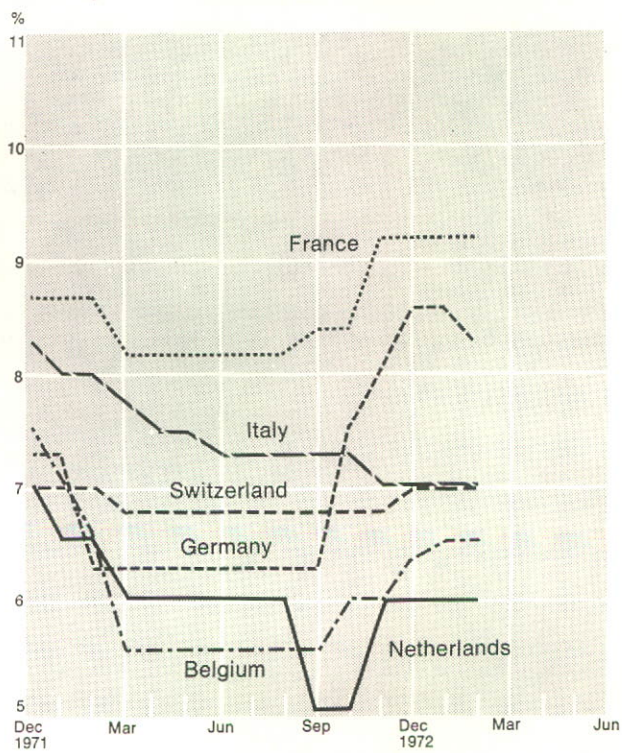
Commercial bank deposit rates





Commercial bank lending rates to prime borrowers





Domestic government bond yields

long-term issues, at or near end of month

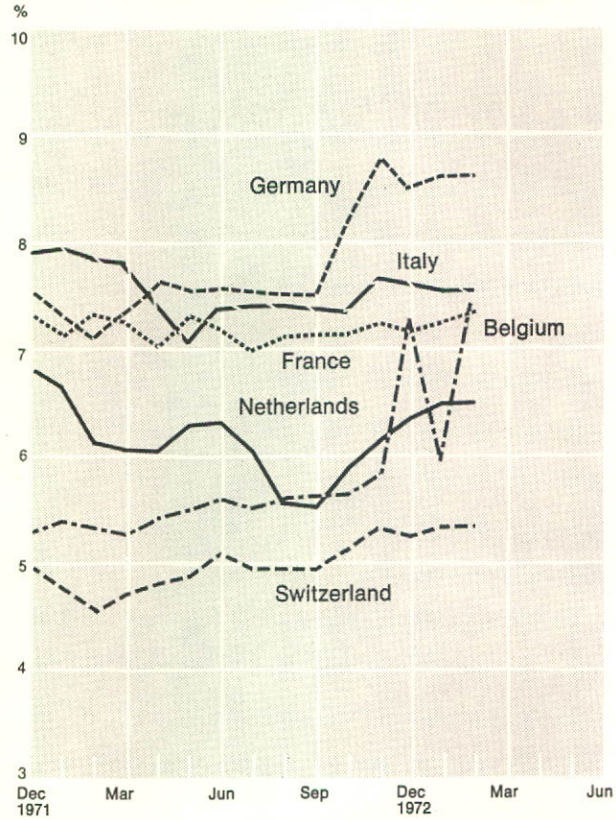
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	6.92	6.42	5.92	5.92	5.89	6.02	5.76	5.74	5.95	6.85	6.88
Canada	8.33	6.99	6.56	7.46	7.44	7.45	7.30	7.08	7.12	7.16	7.21
Japan	7.14	7.21	7.20	6.35	6.51	6.49	6.41	6.39	6.39	6.41	6.56
Belgium	5.77	5.49	5.33	5.58	5.61	5.65	5.70	5.85	7.32	5.95	7.44
France	6.78	7.64	7.34	6.99	7.18	7.19	7.15	7.22	7.18	7.35	7.37
Germany	7.38	7.84	7.54	7.55	7.53	7.47	8.36	8.70	8.48	8.66	8.66
Italy	7.30	8.90	7.93	7.42	7.44	7.38	7.32	7.65	7.57	7.52	7.54
Netherlands	7.50	7.16	6.83	6.07	5.63	5.60	5.87	6.16	6.40	6.51	6.52
Denmark	10.73	11.34	10.81	10.10	10.07	10.40	9.46	10.03	10.47	10.88	11.05
Norway	6.30	6.41	6.37	6.23	6.23	6.24	6.14	6.15	6.13	6.10	6.18
Sweden	7.27	7.32	7.14	7.29	7.33	7.34	7.34	7.36	7.34	7.35	7.36
Switzerland	5.34	5.70	4.99	4.95	4.96	4.98	5.08	5.33	5.25	5.34	5.34
United Kingdom	9.80	8.03	8.45	9.45	9.62	9.57	9.61	9.75	9.81	9.75	9.87
Australia	6.00	7.00	6.50	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
South Africa	6.42	7.75	8.50	8.20	8.25	8.13	8.13	8.13	8.13	8.13	8.13

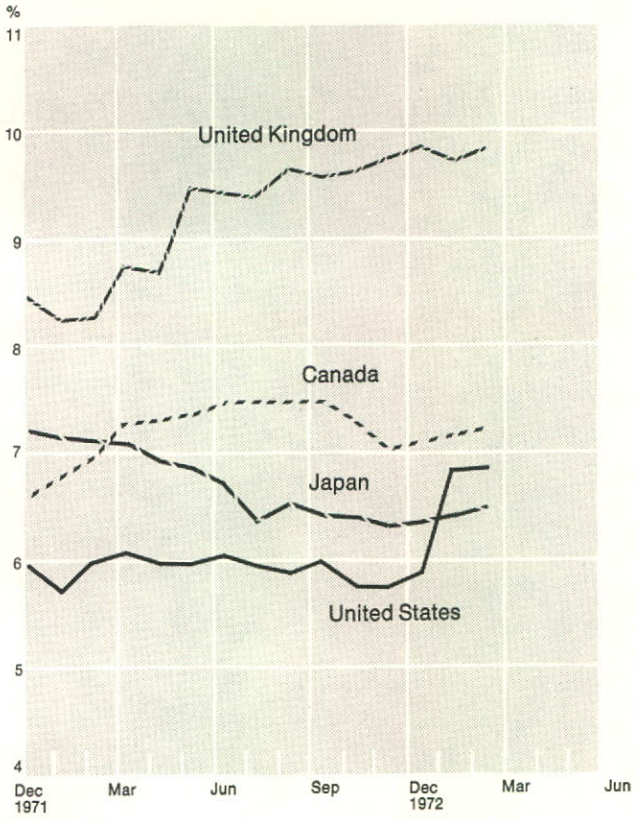
Domestic corporate bond yields

long-term issues, at or near end of month

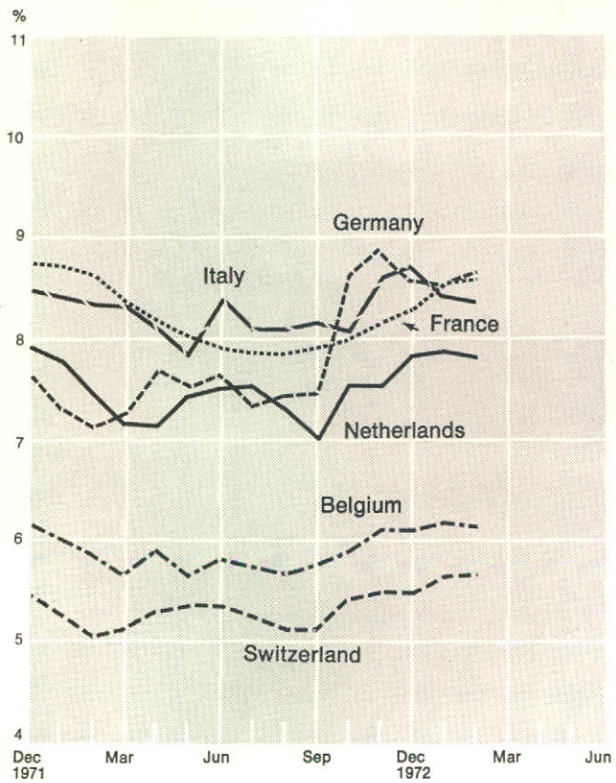
	1969	1970	1971	1972						1973	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	8.95	7.90	7.30	7.50	7.50	7.58	7.47	7.33	7.33	7.48	7.50
Canada	9.29	8.83	8.24	8.34	8.39	8.46	8.41	8.25	8.15	8.18	8.20
Japan	9.07	9.20	7.38	6.52	6.38	6.67	6.65	6.63	6.75	7.08	7.41
Belgium	6.96	6.92	6.12	5.68	5.64	5.76	5.90	6.09	6.09	6.17	6.15
France	8.71	8.83	8.69	7.83	7.82	7.94	7.99	8.10	8.30	8.54	8.59
Germany	7.60	7.77	7.59	7.29	7.36	7.40	8.66	8.77	8.58	8.50	8.62
Italy	8.51	9.74	8.46	8.03	8.02	8.14	8.01	8.62	8.67	8.41	8.34
Netherlands	8.54	7.88	7.91	7.51	7.32	7.00	7.53	7.53	7.81	7.84	7.80
Norway	7.42	6.81	6.77	6.32	6.34	6.34	6.35	6.36	6.29	6.29	6.30
Sweden	8.57	7.48	7.22	7.25	7.25	7.26	7.26	7.28	7.28	7.23	7.23
Switzerland	5.58	6.09	5.42	5.20	5.13	5.12	5.34	5.49	5.47	5.61	5.62
United Kingdom	10.70	10.84	9.19	10.00	10.11	10.33	10.35	10.30	10.40	10.31	10.26
Australia	8.25	9.25	8.50	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.25
South Africa	7.75	9.25	9.75	9.25	9.00	8.80	8.80	8.80	8.80	8.80	8.80

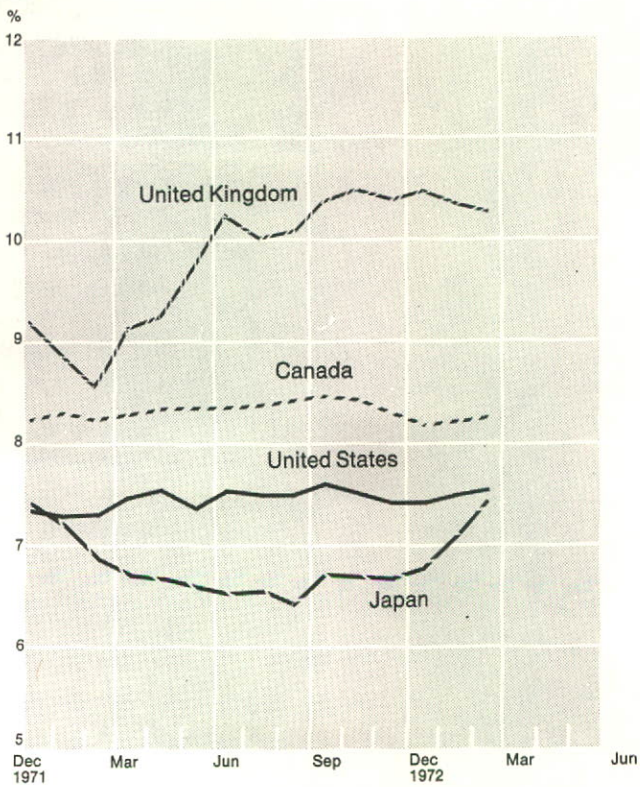
Domestic government bond yields





Domestic corporate bond yields





Morgan Guaranty Trust Company of New York

23 Wall Street, New York, N.Y. 10015

Midtown offices

Fifth Avenue at 44th Street, New York, N.Y. 10036
Madison Avenue at 58th Street, New York, N.Y. 10022
Rockefeller Plaza at 50th Street, New York, N.Y. 10020
Park Avenue at 48th Street, New York, N.Y. 10017

Banking offices abroad

London: 33 Lombard Street, EC3P 3BH
and 31 Berkeley Square, W1X 6EA
Paris: 14, Place Vendôme and 123, Avenue Charles de Gaulle, 92-Neuilly
Brussels: Avenue des Arts 27; 1040 Brussels
Antwerp: Frankrijklei 82; 2000 Antwerp
Frankfurt am Main: Bockenheimer Landstrasse 8
Düsseldorf: Berliner Allee 43
Munich: Von-der-Tann-Strasse 13
Zurich: Stockerstrasse 38
Milan: Banca Morgan Vonwiller S.p.A., Via Armorari, 14
Rome: Banca Morgan Vonwiller S.p.A., Via Boncompagni, 27
Tokyo: New Yurakucho Building, 11, 1-chome, Yuraku-cho, Chiyoda-ku
Nassau: Norfolk House, Frederick Street, c/o P.O. Box N-3935

Representative offices

Madrid: Calle del Barquillo, 8
Beirut: Beirut Riyad Building, Rue Royad Solh, P.O. Box 5752
Sydney: 60 Martin Place
Hong Kong: 36 New Henry House, 10 Ice House Street
São Paulo: Rua Direita 250-12º
Caracas: Edificio Luz Eléctrica, Avenida Urdaneta

Morgan Guaranty Investment Services S.A., 7 rue des Alpes, 1201 Geneva

Morgan Guaranty International Bank of San Francisco
400 Montgomery Street, San Francisco, California 94104

Member, Federal Deposit Insurance Corporation

Printed in U.S.A.