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To: Members of the Executive Board

From: The Secretary

Subject: International Capital Markets - Developments  
and Prospects, 1988 - Background Information

The attached paper provides background information for the report on "International Capital Markets - Developments and Prospects, 1988" (SM/88/270, 12/15/88), which has been scheduled for discussion at an Executive Board seminar on Friday, January 6, 1989.

Mr. Valdivieso (ext. 7355) is available to answer technical or factual questions relating to this paper prior to the Board seminar.

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INTERNATIONAL MONETARY FUND

International Capital Markets - Developments and  
Prospects, 1988, Background Information

Prepared by the Exchange and Trade Relations Department  
and the Research Department

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December 28, 1988

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## I. Introduction

This paper provides background information for the report on "International Capital Markets--Developments and Prospects, 1988" (SM/88/270, 12/15/88). Section II of this paper discusses the broad developments in international financial intermediation since the start of 1987, noting the decline in cross-border banking flows in 1988 and the recovery in international bond markets. The paper relates these developments to underlying macroeconomic conditions, as well as the fundamental trends towards deeper linkages between different national and financial product markets. Capital market flows to developing countries declined in the first part of 1988, as discussed in Section III. This reflects the desire of many banks to reduce their exposure to troubled debtor countries, an action that has had a beneficial effect on stock prices. This section discusses the attitudes of the commercial banking community to the various items on the "menu," including new lending and various debt-reduction techniques.

The worldwide stock market break of October 1987 was the most striking single development on international capital markets during the period under review, and prompted both market participants and national authorities to look again at the risks inherent in national and international financial market activities. The series of reports prepared by national authorities on the October 1987 developments in their own markets are reviewed and compared in Section IV of the paper.

Innovations in financial markets, the liberalization of these markets, and their increasing integration have led to a more competitive international financial system, but one where systemic risks are perhaps greater, and certainly less well understood. Section V of the paper looks at the actions of the supervisory authorities to improve the competitive structure and contain the level of risk on these markets through the introduction of higher risk-based capital adequacy standards for banks and to coordinate the supervision of securities markets. Further steps to liberalize markets and develop new instruments, as well as the response of financial institutions to these developments, are considered in this section.

The final section of the paper, Section VI, looks at two recent initiatives to reduce barriers to the cross-border provision of the financial services, the U.S.-Canada Free Trade Agreement and the creation of a single European market for 1992. These initiatives have presented banks and securities houses with both competitive opportunities and threats to their established markets, and are another important factor in the strategic planning of international banks.

## II. Recent Developments in International Capital Markets 1/

### 1. Overview

During 1987-88, developments in international capital flows were closely linked to the persistence of large external imbalances among the major industrial countries, a reduction in the current account deficit of developing countries from the levels of 1982-86, and a continuing process of international financial markets liberalization. The evolution of external imbalances took place in an environment of considerable financial uncertainties associated with an upturn of interest rates in late 1987, renewed concern about inflation in major industrialized countries, increased volatility of exchange rates, and sizeable foreign exchange market intervention by some major industrialized countries aimed at stabilizing the value of the U.S. dollar. In addition, financial uncertainties were also exacerbated by the worldwide stock market crisis of October 1987.

In 1987, these macroeconomic developments and financial uncertainties stimulated both the sharp expansion of international bank activity and the accompanying slowdown in the Eurobond markets. The uncertainties created by the upturn of long-term interest rates after the first quarter of 1987 reduced market participants' preferences for fixed rate bond issues, especially those of long-term maturity; but this was not offset by greater use of floating rate notes because that market was faced with liquidity problems. As a result of this weakness in bond markets, intermediation through the banking sector increased, reflecting a shift in investors' preferences for the more liquid, shorter term instruments offered by banks. Changes in bank claims (mostly lending) also became an important source of funding for leveraged buyouts, mergers and acquisitions. The weakness in the bond market was accentuated, especially in the equity-related bond sector, by the crisis in the equity market in October 1987.

These developments were reversed during the first three quarters of 1988. Issues of new bonds recovered strongly in an environment of relatively more stable exchange and interest rates, as well as increased utilization of financial instruments that better reflected changing economic conditions. Despite higher interest rates during 1988, issues of fixed interest rate bonds with shorter maturities and improved liquidity features expanded. New issues of floating rate notes (FRN) also increased during the first three quarters of 1988, although much of this new activity was concentrated in issues of FRNs denominated in sterling by U.K. institutions. Moreover, the partial recovery in the issuance of equity-related bonds has mainly reflected the activities of Japanese borrowers. In contrast to the expansion in bond market activity, total international bank claims declined during the first half of 1988, in part reflecting a renewed interest by investors in the international

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1/ This section was mainly prepared by Liliana Rojas-Suarez.

bond market. In addition, a reduction in the scale of foreign exchange market intervention by the major industrialized countries also affected deposits with banks.

## 2. The macroeconomic environment

### a. External and fiscal imbalances in major country groups

Large external imbalances among the major industrial countries persisted during 1987-88, while the overall current account deficit of developing countries, which was at a near balance in 1987, is estimated to have increased in 1988. The aggregate identified current account deficit of industrial countries, which increased from US\$168 billion in 1986 to US\$190 billion in 1987, is estimated to have fallen slightly to US\$184 billion during 1988 (Table 1). The widening of this deficit in 1987 occurred despite of a decline in the combined identified fiscal deficit of the seven major countries, which fell for the first time since 1984. Estimates for 1988 suggest a further decline in aggregate fiscal deficits, albeit at a lower rate.

The current account deficit of the United States increased from US\$139 billion in 1986 to US\$154 billion in 1987, and represented 81 percent of the total deficit of the industrialized world. In contrast, the current account surpluses of Japan and Germany continued to increase in 1987 and reached US\$87 billion and US\$45 billion, respectively. Some moderation of these imbalances was evident in 1988. During the first half of 1988, for example, the current account deficit of the United States fell to an estimated annual rate of US\$133 billion and the German current account surplus declined to an estimated annual rate of US\$30 billion. Moreover, the Japanese current account surplus declined to an annual rate of US\$77 billion in the first ten months of 1988. Some observers have suggested that these large imbalances have persisted in part because of the existence of long and variable lags in the response of the current account imbalances to movements in exchange rates.

In contrast to the expanding external imbalances in the United States and Japan in 1987, their central government fiscal deficits declined. In the United States, the federal budget deficit fell sharply in FY 1987 by 1 1/2 percentage points of GNP. This outcome was partly the result of increased economic growth, but it was also influenced by a temporary increase in revenues arising from certain features of the 1987 tax reform. The budget outcome for FY 1988 resulted in a slight further decrease in the U.S. federal deficit in relation to GDP from 3.4 percent in FY 1987 to 3.2 percent in FY 1988. The Japanese central government deficit also declined in 1987 because the increase in revenues arising from strong output growth, more than offset increased government expenditure that resulted from the implementation, in May 1987 of a package designed to stimulate aggregate demand. In contrast to developments in the United States and Japan, the fiscal deficit of the territorial authorities in Germany increased from 2.5 percent of GDP in 1986 to

2.8 percent of GDP in 1987, partly reflecting a decrease in tax revenues arising from a slowdown in economic growth and a decline in the Bundesbank's profits. Projections for 1988 point to a further increase in the deficit to 3.4 percent of GNP.

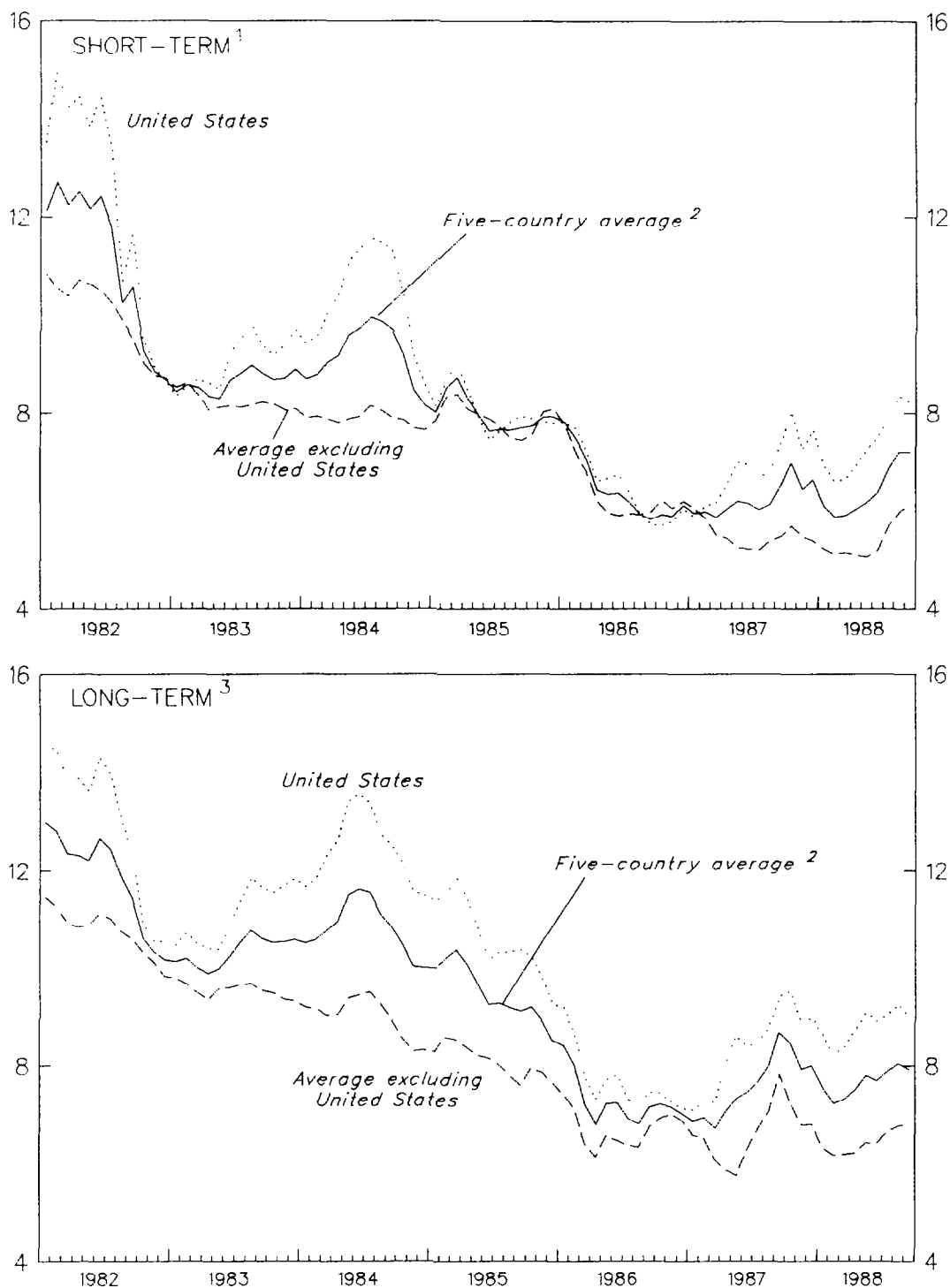
The overall current account balance of developing countries moved from a deficit of US\$41 billion in 1986 to a small surplus of US\$0.3 billion in 1987. This result was mainly due to an oil-led improvement in the terms of trade and a significant increase in the volume of exports. The overall current account balance of developing countries during 1987 encompassed diverse experiences for major country groups. While the current account position of capital-importing countries registered a surplus of US\$1 billion in 1987 compared to a deficit of US\$25 billion in 1986, countries with recent debt-servicing problems reduced their current account deficits from US\$23 billion in 1986 to US\$15 billion in 1987. For this latter group, nondebt-creating flows (e.g., foreign direct investment) plus long-term borrowing from official creditors totaled US\$39 billion in 1987 and, as a result, their foreign reserves rose by US\$6 billion. Staff projections point to an overall current account deficit of US\$18 billion for developing countries in 1988. The current account position for countries with debt problems is projected to deteriorate further and to be financed mainly by direct investment and long-term borrowing from official creditors.

b. Other factors influencing the financial markets environment

In addition to the persistence of external and fiscal imbalances in the major industrial countries, the financial environment in 1987-88 was influenced by several other factors. Interest rates, which had been falling during much of the 1980s, began to rise in 1987 (Chart 1). At the beginning of 1987, long-term interest rates in the United States, Japan, Canada, and Italy were at their lowest levels since the late 1970s. However, interest rates began to rise in most of the major industrialized countries in late 1987, and this increase continued during the first three quarters of 1988. For example, the London Interbank Offered Rate (LIBOR) on six-month U.S. dollar deposits increased from 6.4 percent in the first quarter of 1987 to 8.7 percent in September 1988. There was also an increase in the volatility of both short- and long-term interest rates (Table 2).

Some observers argued that the increased level and volatility of long-term interest rates, especially in the United States and Japan, reflected changing expectations regarding the stability of exchange rates among the major currencies. In particular, the depreciation of the dollar in the first half of 1987 was followed by an increase in the premium in dollar interest rates over interest rates on instruments denominated in Japanese yen or deutsche marks, and in a reduction in the discount on dollar interest rates over interest rates on instruments denominated in pound sterling and French francs. These trends continued during the first three quarters of 1988 (Table 3).

CHART 1  
FIVE MAJOR INDUSTRIAL COUNTRIES  
NOMINAL INTEREST RATES, JANUARY 1982–SEPTEMBER 1988  
(In percent)



Sources: International Monetary Fund, *World Economic Outlook*; and Fund staff estimates.

<sup>1</sup> Monthly averages of daily rates on money market instruments of about 90 days' maturity.

<sup>2</sup> France, the Federal Republic of Germany, Japan, the United Kingdom, and the United States; using three-year moving average, GNP-based weights.

<sup>3</sup> Monthly averages of daily or weekly yields on government bonds, with maturities ranging from 7 years for Japan and 20 years for the United Kingdom and the United States.





The depreciation of the U.S. dollar vis-à-vis other major currencies and the increased volatility of exchange rates during most of 1987, occurred despite large-scale official exchange market intervention. At the beginning of 1988, the U.S. dollar started to recover against other major currencies, and in the second quarter of 1988, exchange rate movements among the three major currencies became relatively less volatile. Subsequently, the U.S. dollar appreciated further, in part reflecting the strong performance of the U.S. economy, but it has been under renewed pressures since early November 1988.

Concern about inflation, stimulated in some countries by exchange rate movements, also affected the financial environment and has often been cited as one reason for the emergence of a more steeply sloping yield curve in the U.S. in the second half of 1987. Yield curves in most other industrial countries also became more steep, reflecting a generalized concern about future inflation. This concern moderated somewhat in the period immediately following the stock market break of October 1987 because of fears about a possible reduction in the level of economic activity. In the process, yield curves flattened somewhat. Nonetheless, as it became evident that the stock market break was not going to have such an effect, concern about inflation reemerged, fostered by a growing perception that output was approaching capacity limits.

### 3. Major trends in industrial countries

The financing of large current account imbalances among the major industrial countries in 1987-88 entailed large net capital flows among countries. At the same time, the continuing liberalization of major financial markets as well as concerns about inflation, exchange rate, and interest rate developments stimulated an expansion in the amount of gross international financial flows. In this section, the net capital flows are discussed in terms of the financing of the current account imbalances of the three major industrial countries; whereas the gross flows are examined in terms of developments in bank lending and securities flows.

#### a. Current account financing of selected major industrial countries

Since 1985, the relative importance of official and private capital flows in the financing of the current account imbalances of the three major industrial countries has varied considerably. Official capital flows, resulting principally from exchange market interventions, played a more important role in 1987-88 than in the preceding 2 years.

In the United States, net official liabilities to foreign monetary institutions, which increased by US\$50 billion in 1987, accounted for about one third of the current account deficit in 1987 (Table 4). In the first half of 1988, such flows represented 54 percent of a reduced

current account deficit. Among net private capital flows, net short-term capital represented 70 percent of net inflows through the capital account in 1987. In the first half of 1988, however, long-term private capital inflows and official transactions were sufficient to finance the current account deficit since there was a net outflow of short-term capital.

In Japan, net foreign exchange reserves increased by US\$39 billion in 1987 and corresponded to 45 percent of the current account surplus; in 1986, such reserve accumulation had accounted for only 18 percent of the current account surplus. During the first half of 1988, foreign exchange reserves expanded more slowly at an estimated annual rate of US\$12 billion or about 16 percent of the Japanese current account surplus. Moreover, inflows of short-term capital increased sharply, mainly reflecting an increase in foreign borrowing by Japanese banks. In 1987 and the first half of 1988, Japan therefore continued to be a net lender of long-term capital and a net borrower of short-term capital.

In Germany, the accumulation of net official foreign assets reached US\$30 billion in 1987 and represented 65 percent of the current account surplus, up from 23 percent in 1986. In the first half of 1988, Germany's net official foreign exchange assets declined at an annual rate of US\$14 billion as net private capital outflows exceeded the current account surplus. Net outflows of private capital doubled in the first half of 1988 relative to the corresponding period of 1987 largely reflecting a shift in foreign purchases of domestic securities. This development has been associated in part with changes in exchange rate expectations and in part with investors' concerns about a new German withholding tax on interest income.

Also, reflecting the shift in foreign investors' preferences from long-term securities into more liquid assets that occurred after the stock market break of October 1987, net outflows of short-term capital by German residents (part of which had been used to finance purchases of long-term securities) decreased sharply from US\$44 billion in 1986 to US\$6 billion in 1987. Most of the yearly reduction in net outflows took place during the last two quarters of 1987 when there was a net inflow of short-term capital into Germany. This trend continued during the first half of 1988.

b. Securities and bank lending flows in the U.S. and Japan

The continuing liberalization of financial activities and the persistence of large external imbalances in major industrial countries also influenced both the scale and type of gross capital flows among industrial countries in 1987.

In Japan, total gross long-term outflows of resident funds reached US\$133 billion in 1987 (Table 5). However, these outflows declined somewhat during the first half of 1988 (to \$64 billion) in comparison to

the level in the first half of 1987 (\$77 billion). <sup>1/</sup> Long-term outflows continued to reflect mainly purchases of securities during 1987 but their relative share of total flows has declined from 77 percent in 1986 to 67 percent in 1987 because of a corresponding increase in long-term loans. For the first time during the 1980s, long-term liabilities of Japanese residents to the rest of the world decreased by US\$4 billion in 1987, mainly as a result of reduced Japanese liabilities to residents of the United States. This trend, however, was reversed in the first half of 1988. The regional distribution of long-term capital flows has also shifted significantly in recent years, especially towards countries in the OECD area. <sup>2/</sup> The share of Japanese flows to the OECD area, which had been only 55 percent in 1982, rose to 83 percent in 1987. This trend was dominated by flows to the United States which increased from 13 percent of long-term Japanese gross outflows in 1982 to 38 percent in 1987.

In the United States, gross capital outflows decreased sharply from US\$98 billion in 1986 to US\$85 billion in 1987 (Table 6). This primarily reflected a reduction in the accumulation of U.S. banks' claims abroad, which partly resulted from an increase in the supply of dollar-denominated assets by Japanese banks and by the Euro-market. Increased competition resulted in an increase of only \$7 billion in the stock of U.S. private external assets in the first half of 1988, much smaller than the \$12 billion increase recorded during the first half of 1987. <sup>3/</sup> Foreign acquisition of long-term claims on the United States also decreased sharply from US\$186 billion in 1986 to US\$167 billion in 1987 as foreign purchases of U.S. securities fell from US\$75 billion in 1986 to US\$35 billion in 1987. Most of this decline occurred in the period following the equity market crisis of October, and reflected investors' concerns about future developments in U.S. equity prices and interest rates. Net purchases of U.S. securities recovered in the first half of 1988 to reach \$24 billion, but still remained below the \$29 billion of securities purchased by nonresidents in the first half of 1987.

The regional distribution of U.S. gross capital outflows has changed sharply during the period 1982-87. Since 1982 U.S. capital outflows to Japan have increased significantly, although a third of these flows is still directed toward countries inside the EC. Thus,

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<sup>1/</sup> Data on gross long-term capital flows in the first half of 1988 comes from the Bank of Japan, Balance of Payments Monthly, June 1988.

<sup>2/</sup> National statistics of the regional distribution of capital flows report the OECD area as one country group category. The countries inside the OECD area are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

<sup>3/</sup> Data on gross capital flows in the first half of 1988 comes from the U.S. Department of Commerce, Survey of Current Business, November 1988.

while the proportion of U.S. capital outflows going to countries within the EC increased from 34 percent in 1982 to 36 percent in 1987, that going to Japan rose from 2 percent in 1982 to 28 percent in 1987. Disaggregated data by region are not available for the liability side of the capital account of the balance of payments in the United States. However, data from international capital market flows indicate that in recent years Japan has joined the United Kingdom as one of the major sources of external finance to the U.S.

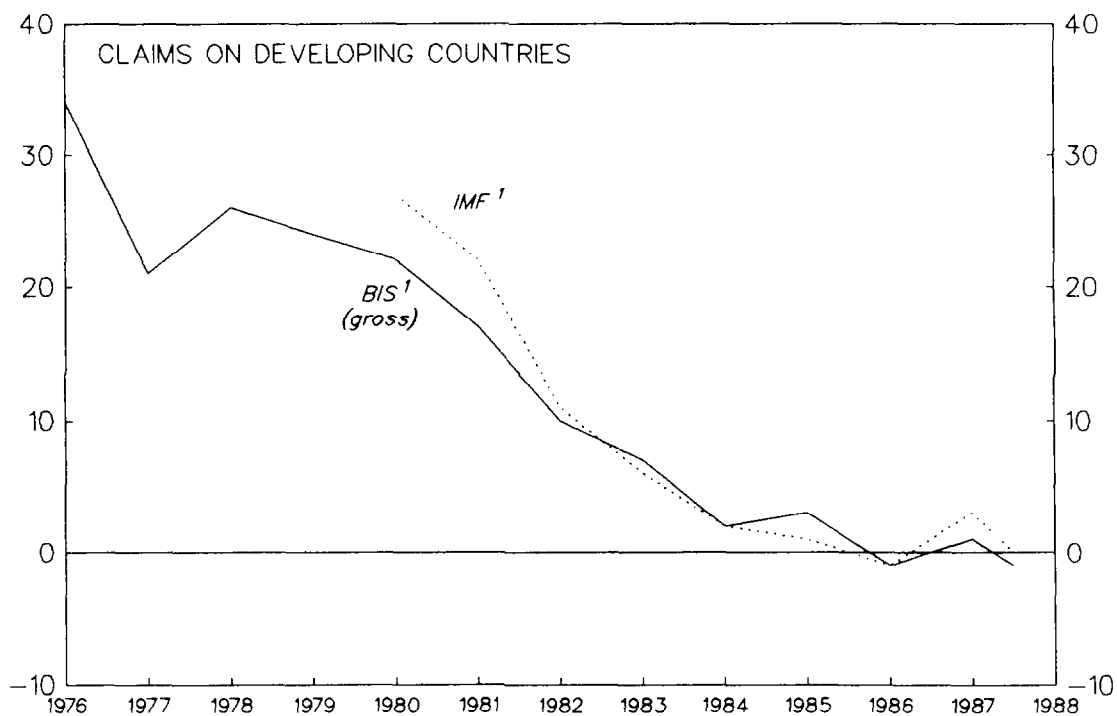
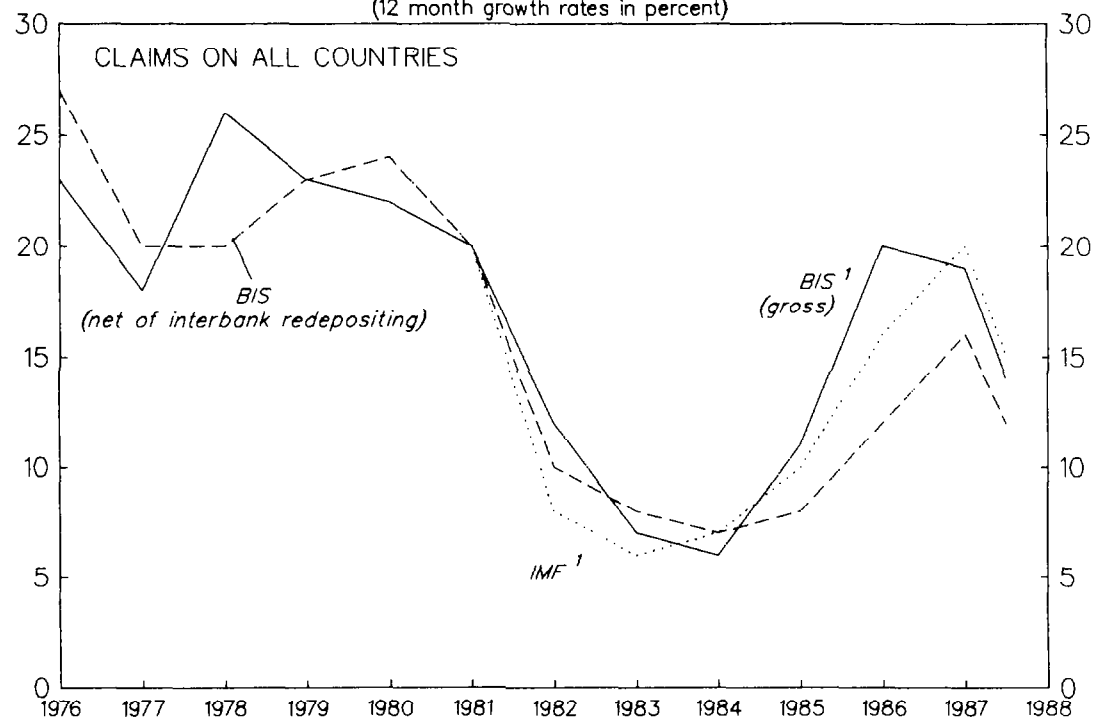
4. Changes in international bank claims (lending),  
bond issues, and hedging instruments

The most important feature of developments in financial markets during 1987 was the sharp increase in international bank claims which more than offset the contraction of activity in the bond market. Total international bank and bond markets activity increased from US\$613 billion in 1986 to US\$857 billion in 1987 (Table 7). This increase, however, was entirely the result of an increase in cross-border bank claims from US\$526 billion in 1986 to US\$801 billion in 1987, since net new issues of bonds minus bonds purchased by banks decreased from US\$87 billion in 1986 to US\$56 billion in 1987. These developments were reversed during the first half of 1988, when, notwithstanding a strong recovery in net bond issues, total international bank and bond market activity contracted sharply. Major developments in other segments of the financial market in the first three quarters of 1988 included a resurgence of new Eurocommercial paper programs, and a moderate increase in lending through multiple component facilities amidst a declining trend in more traditional back-up facilities. In addition, interest and exchange rate hedging instruments have expanded rapidly to reach an outstanding amount of US\$1.1 trillion in swaps by end-1987.

a. International banking activity

International bank claims on industrial countries, which had expanded from \$417 in 1986 to \$556 billion in 1987, slowed down substantially to \$205 billion during the first half of 1988 compared to \$258 billion in the first half of 1987 (Table 8 and Chart 2). As in previous years, bank lending to industrial countries continued to be dominated by interbank activities. Interbank loans accounted for over 85 percent of bank lending the first half of 1988, while interbank deposits accounted for 86 percent of banks' deposit-taking activities from industrial countries (Table 9). Banks with residence in the United Kingdom, Japan, and the United States maintained a 70 percent share in the total change in cross-border interbank claims on industrial countries, although they lost some ground in the change in interbank liabilities. By contrast, bank head offices' funding of the operations of their branches and subsidiaries located in major financial centers declined in absolute terms in the first half of 1988, with the exception of Japanese and Italian banks which registered minor increases in relation to 1987 (Table 10).

CHART 2  
GROWTH RATE OF INTERNATIONAL BANK CLAIMS,  
1976—FIRST HALF 1988  
(12 month growth rates in percent)



Sources: Bank for International Settlements, *International Banking and Annual Report*; International Monetary Fund, *International Banking Statistics*, *International Financial Statistics*; and Fund staff estimates.

¹ These data do not net out interbank redepositing.



The slowdown in activity in 1988 also extended to nonbanks. Bank claims on nonbank entities in industrial countries which had more than doubled between 1986 and 1987 to reach \$83 billion, amounted to only US\$29 billion in the first half of 1988, one-fourth less than a year earlier (Table 11). Nonbank entities in Japan and the United States, which received over 70 percent of the change in bank claims on nonbanks in 1986-87, obtained less than 40 percent in the first half of 1988. The change in bank liabilities to nonbank entities in industrial countries continued its downward trend. Following a decline of 13 percent to US\$53 billion in 1987, liabilities to nonbanks declined further by 43 percent to US\$17 billion between the first half of 1987 and that of 1988.

The general slowdown in banking activity in the first half of 1988 can be partially explained by renewed interest in the international bond market brought about by somewhat reduced uncertainties regarding the behavior of exchange rates and bond yields, which led investors in 1987 to shift their portfolios toward more liquid assets offered by banks. It has been argued that the uncertainties prevailing in 1987 benefited banking activities not only because banks provided suitable instruments, but also because investors were led to borrow from banks in order to finance purchases of hedging instruments. Other major factors behind the decline in bank lending activity were the reduced scale of foreign exchange market intervention by the major industrialized countries and the fading impact that the opening in 1986 of the Tokyo offshore market has had on interbank flows. Although there is an ongoing effort to continue liberalizing international capital flows, one could argue that the main changes have already been introduced and therefore the impact of further reforms upon banking flows should tend to be less intense than before. <sup>1/</sup>

As far as the country-specific performance in the bank market is concerned, during 1987 and the first half of 1988, residents of Japan remained the most important net borrower in this market, albeit the net amounts borrowed have progressively declined. Interbank activity reflected both a large volume of transactions between banks in Japan and in Hong Kong, and the effects of the opening of the Japan Offshore Market at the end of 1986. Total cross-border bank claims on Japan expanded by 45 percent and reached \$223 billion during 1987, 40 percent of the total change in international bank claims on industrial countries. At the same time, deposits by Japanese residents grew significantly to \$148 billion. Despite a large current account surplus in 1987, Japan was thus a net user of funds from the international banking sector, with a net inflow of \$76 billion. In part, this inflow reflected the investment activities of the nonbanking sector, which borrowed foreign currency in order to finance purchases of international

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<sup>1/</sup> For further elaboration on the role played by these factors in 1987, refer to "International Capital Markets--Developments and Prospects, 1987" (SM/87/194, 8/5/87).



securities. As a result, cross-border bank claims on the Japanese nonbanking sector sharply increased from \$5 billion in 1986 to \$31 billion in 1987. Moreover, in view of uncertainties regarding the value of the U.S. dollar in the second and fourth quarter of 1987, Japanese residents reportedly increased their borrowing in foreign currency in order to hedge returns from their foreign investments.

While bank liabilities to Japan experienced a moderate expansion during the first half of 1988, new international bank lending decreased, mainly as a result of a contraction in bank claims on the nonbanking sector. As a result, the change in net claims on Japan decreased to \$30 billion during the first half of 1988 from \$47 billion in the corresponding period of 1987.

The United States was also a net user of funds from international banks in 1987, a pattern that has been evident since 1983. International bank lending to residents of the United States grew in 1987 by \$16 billion to reach \$110 billion. In contrast, bank liabilities to the United States decreased by \$26 billion to \$56 billion. Nonetheless, the nonbanking sector in the United States still accounted for 42 percent of the total change in liabilities to the nonbanking sector of industrial countries in international banks. During the first half of 1988, banks' net claims on the United States amounted to \$16 billion. Although this net inflow was lower than the \$22 billion net inflow in the first half of 1987, the decline was concentrated on the first quarter of 1988 when U.S. residents reduced their deposits in international banks by \$17 billion and repaid \$13 billion of international bank loans. In addition, mostly because of seasonal patterns, assets and liabilities of banks in the United States declined during the first quarter of 1988. In contrast, international bank lending and borrowing activities with the United States increased in the second quarter of 1988, reflecting an underlying expansionary trend.

Among other industrial countries, France reported one of the highest rates of expansion of international banking activity in 1987, since both cross-border bank lending to and deposit-taking from its domestic entities tripled from 1986, partly reflecting the removal of capital controls in that country. International bank lending to borrowers in the United Kingdom totaled US\$66 billion in 1987, although this represented a decline of 6 percent from the amount lent in 1986. While deposit-taking from U.K. residents increased only slightly in 1987, this country was the second (after Switzerland) largest net supplier of funds to international banks. During the first half of 1988, however, there was a net inflow of \$17 billion from international banks into the U.K.

b. International bond market

In contrast to developments in international bank lending during 1987-88, new issues of international bonds fell by 20 percent to \$181 billion in 1987 and expanded by 12 percent to US\$172 billion in the

first three quarters of 1988 (Table 12). The contraction of the market in 1987, which occurred mainly during the second half of the year, reflected a combination of factors, including increases in long-term interest rates which reduced the attractiveness of fixed rate instruments, liquidity problems in the market for floating rate notes, uncertainties regarding the future levels of interest rates and exchange rates, which shifted investors' preferences towards more liquid assets, and the flight to quality (i.e., government securities) during the equity market crisis in October 1987, which affected liquidity in all Eurobond markets.

The revival of bond activity in 1988, however, can be associated with relatively more stable exchange rates and interest rates, and with the ability of borrowers and intermediaries to accommodate investors' changing preferences in the presence of varying economic conditions. For example, issues of fixed interest rate bonds have expanded because borrowers have been able to offer products of shorter maturity and higher liquidity. New issues of floating rate notes also expanded during 1988, but it was mostly concentrated in issues of sterling floaters by U.K. institutions. Moreover, equity-related bonds, which were adversely affected by the stock-market break of October 1987, also recovered during 1988. This recovery, however, has mainly reflected the increased issuance by Japanese borrowers triggered by rising share prices.

During 1987 and the first three quarters of 1988, borrowers from industrial countries accounted for about 86 percent of total issues, while borrowers from developing countries, excluding offshore centers, accounted for only 3 percent of those issues, which compares to a share of 6 percent in 1982. <sup>1/</sup> (Table 13 and Chart 3).

Early repayments of bonds continued at a high rate during 1987 as relatively low interest rates during 1986 and early 1987 encouraged borrowers to refinance debt contracted at higher interest rates during the early 1980s (Table 14). As a result, 63 percent of total early repayments were retirements of fixed interest rate bonds. In the first three quarters of 1988, early repayments expanded further, despite higher interest rates. With rising scheduled amortization payments, the slowdown in the issuance of new bonds translated into a decline of 33 percent in net issues of international bonds (gross issues less early repayments and scheduled amortization payments) to \$110 billion in 1987. During the first three quarters of 1988, net issues of international bonds increased by \$17 billion relative to the comparable period in the previous year. Bonds purchased by banks also declined in 1987 to \$54 billion. Information on total bond purchases by banks during the first three quarters of 1988 is not yet available.

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<sup>1/</sup> For a discussion of major trends in bond market financing to developing countries refer to Section III below.

New bond issues in 1987 moved away from bonds denominated in U.S. dollars toward bonds denominated in Japanese yen, Swiss francs, and pound sterling (Chart 4). The share of U.S. dollar denominated bonds declined sharply from 55 percent in 1986 to 36 percent in 1987 as expectations about the U.S. dollar created concerns about the future yield of dollar-bonds. In addition, liquidity concerns in the market for floating rate notes, which was mainly denominated in U.S. dollars, reduced issuance of these instruments. In contrast, expectations of a further appreciation of the yen led the share of bonds denominated in Japanese yen to increase from 10 percent in 1986 to 15 percent in 1987, despite a decline in long-term interest rates in Japan. High interest rates in the United Kingdom and the appreciation of the sterling were key factors contributing to the increase in the share of pound sterling denominated bonds from 5 percent in 1986 to 8 percent in 1987. During the first three quarters of 1988, the proportion of international bonds denominated in U.S. dollars started to improve and reached 39 percent. This reflected the increased confidence of investors in dollar-denominated assets that followed the decrease in the United States' trade deficit and the appreciation of the U.S. dollar. In addition, the share of bonds denominated in sterling increased to 14 percent from an average of 6 percent in the period 1984-87.

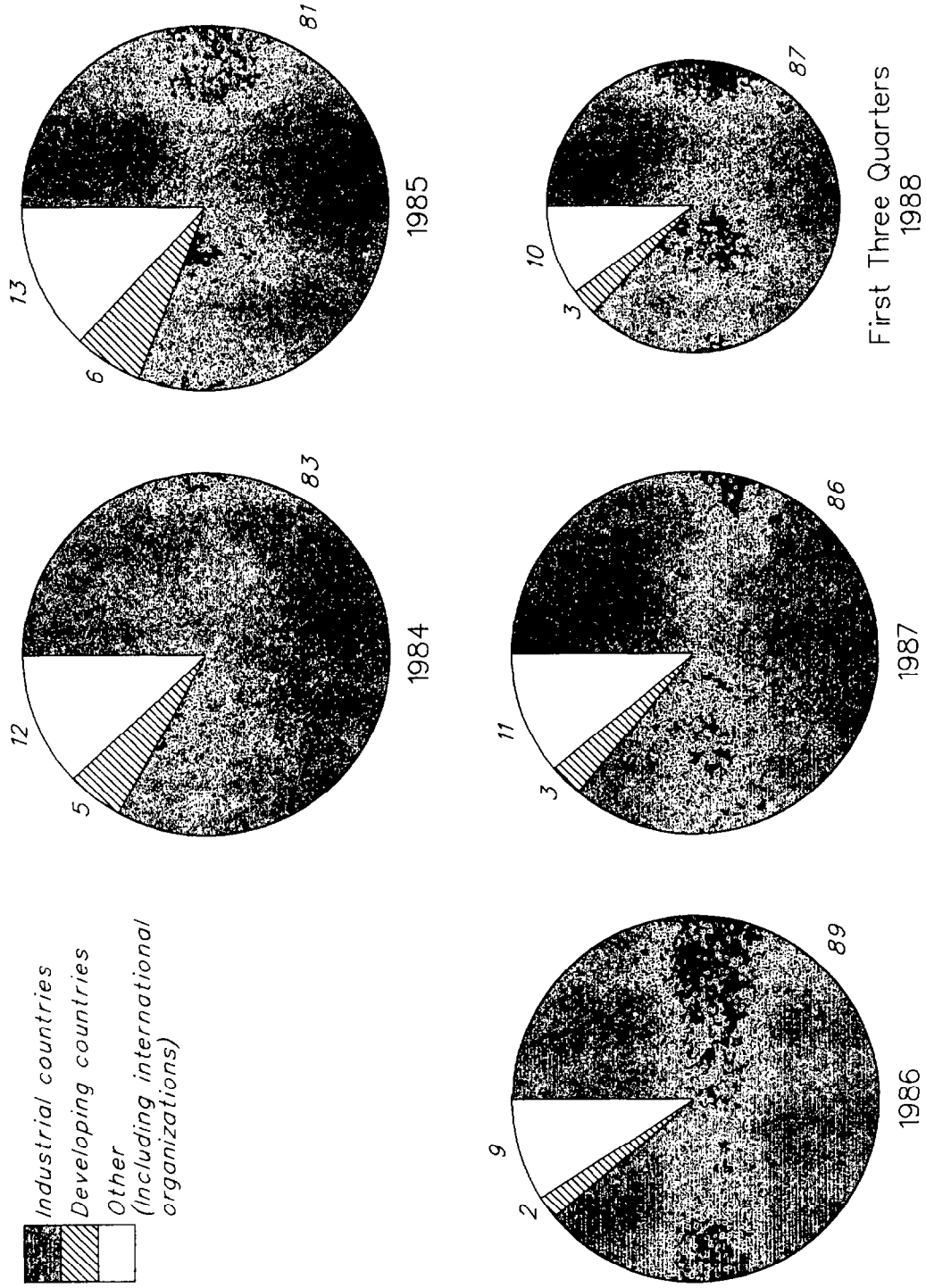
Significant changes in the types of instruments used for new bond issues occurred during the period 1984-87 (Chart 5). While the issuance of fixed interest rate bonds accounted for a growing share of total international bond issues during this period, the relative importance of floating rate notes and equity-related bonds varied sharply (Table 15). Floating rate notes which accounted for about 35 percent of total international bond issues in 1984-85, decreased sharply during 1986-87 to only 7 percent of total issues in 1987. At the same time, issuance of equity-related bonds which accounted for about 9 percent of total international bond issues in 1984-85 rose sharply to reach 24 percent of total issues in 1987. The reduction in the use of floating rate notes reflected liquidity problems that resulted in the collapse of this market and the subsequent spillover into the market for dated floating rate notes in 1987. <sup>1/</sup> In contrast, the expansion of equity-related bonds occurred during the first nine months of 1987 when equity prices were rising sharply on a number of national markets.

During the first three quarters of 1988, the issuance of floating rate notes started to recover and accounted for 9 percent of total issues (as compared to 5 percent during the first half of 1987). This recovery was mainly associated with rising interest rates, which made floating rates more attractive for investors. Issues of equity-related bonds expanded during the first three quarters of 1988 mainly reflecting a recovery from the stock market break of October 1987.

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<sup>1/</sup> For a discussion of the perpetual floating rate market collapse, see, "International Capital Markets: Development and Prospects in 1987" (SM/87/194, 8/5/87).

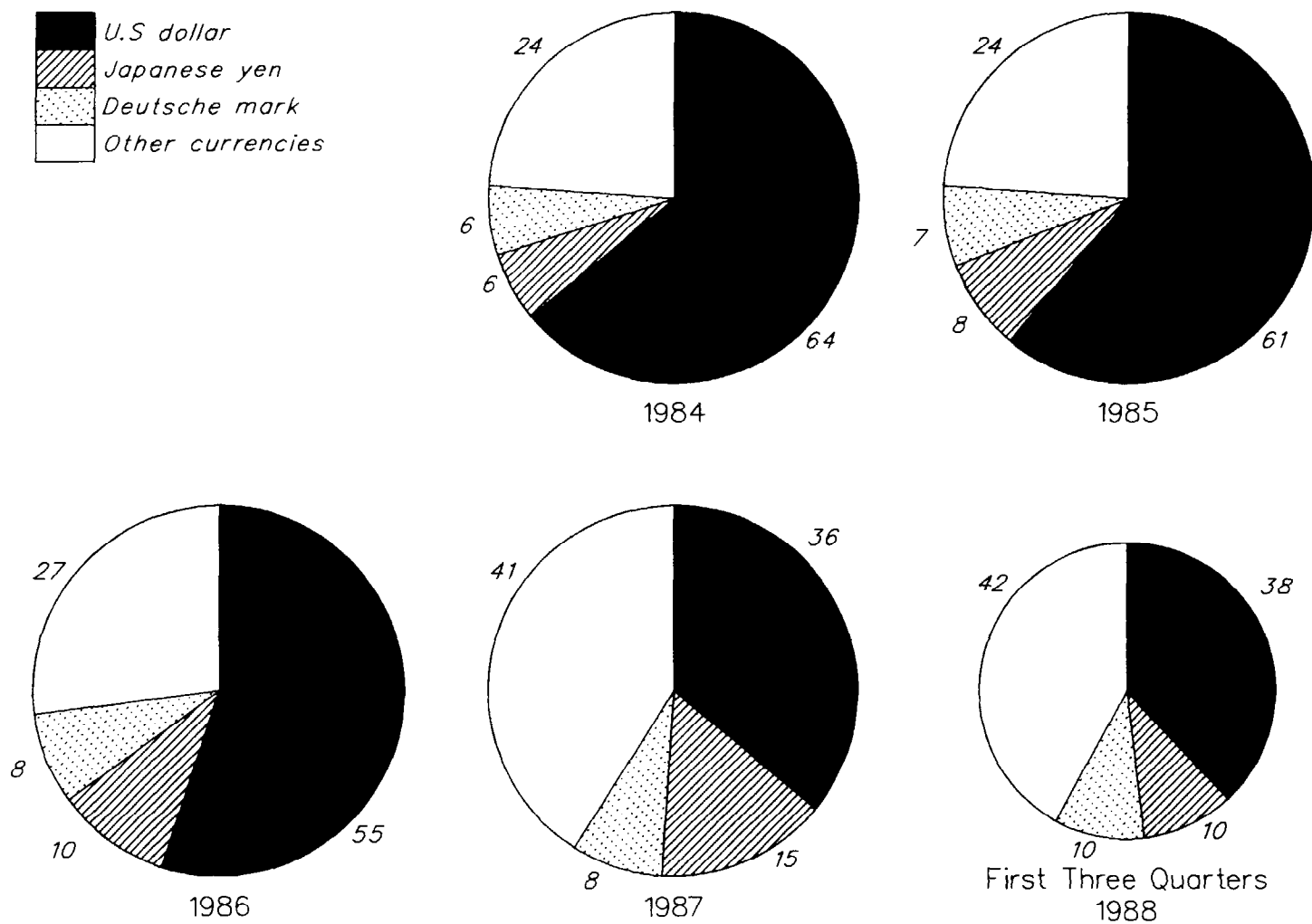
CHART 3  
INTERNATIONAL BOND ISSUES BY GROUPS OF BORROWERS, 1984—THIRD QUARTER 1988  
(In percent)



Source: Organization for Economic Cooperation and Development, *Financial Statistics Monthly*.



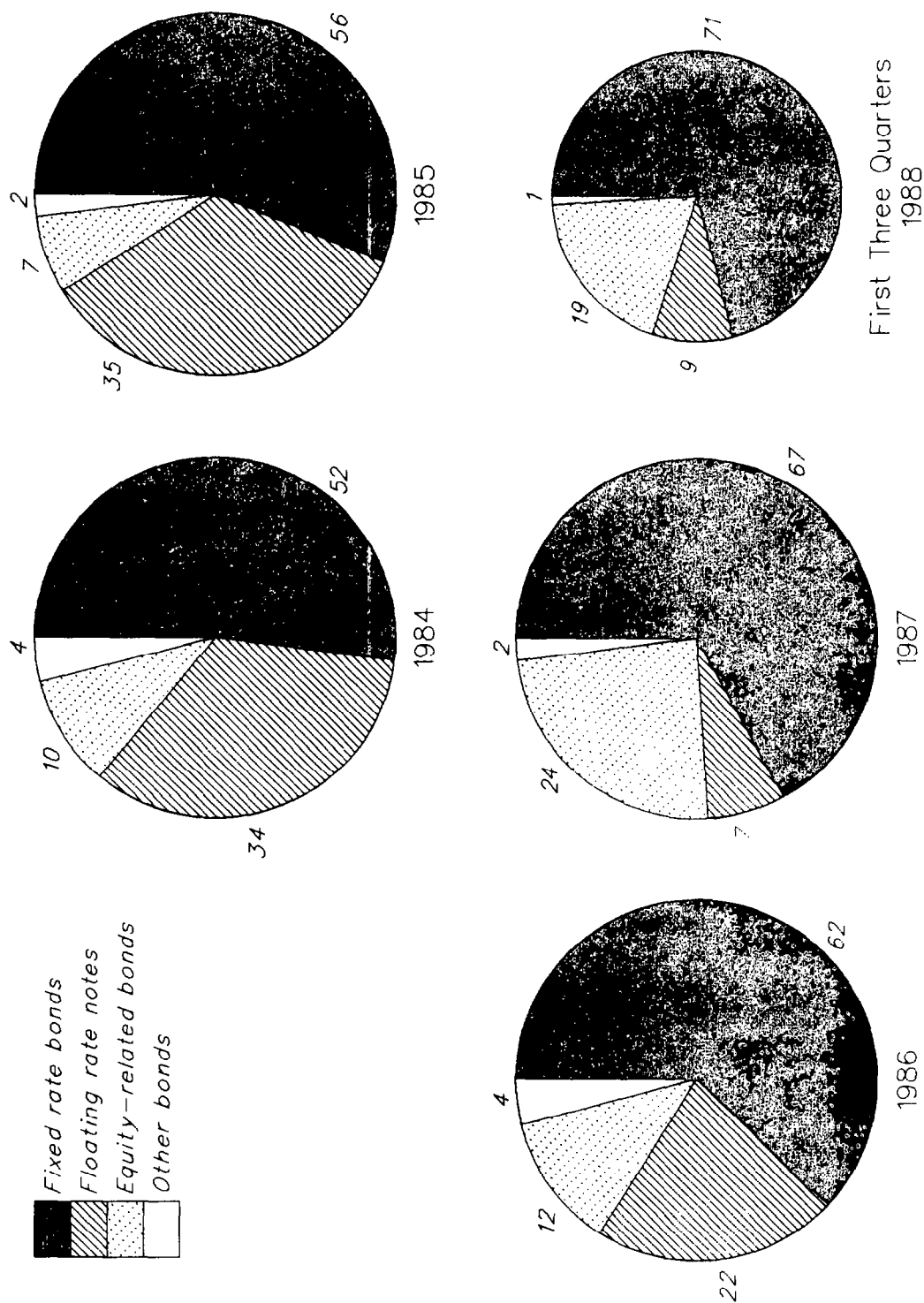
CHART 4  
CURRENCY COMPOSITION OF INTERNATIONAL BOND ISSUES,<sup>1</sup> 1984–THIRD QUARTER 1988  
(In percent)



Source: Organization for Economic Cooperation and Development, *Financial Statistics Monthly*.  
<sup>1</sup>Based on exchange rates prevailing at time of bond issue.



CHART 5  
INTERNATIONAL BOND ISSUES BY MAJOR INSTRUMENTS, 1984—THIRD QUARTER 1988  
(In percent)



Source: Organization for Economic Cooperation and Development, *Financial Market Trends*.





Fixed interest rate bonds issues declined by 14 percent in 1987 to \$121 billion, after a sustained increase during 1983-86 (Table 16). This decline was partly the result of increasing interest rates. Fixed-rate bonds denominated in U.S. dollars experienced the sharpest decline, amounting to \$31 billion in 1987, less than half the value of new issues in 1986, reflecting investors' concerns regarding the future value of the U.S. dollar. New bond issues in yen (\$23 billion), Swiss francs (\$17 billion), and deutsche marks (\$13 billion) remained practically unchanged from their levels in 1986, but bond issues in sterling almost doubled to \$9 billion in 1987. New offerings by borrowers from the United States, Canada, and Denmark strongly declined, while those from Germany and the United Kingdom increased.

The volume of fixed-rate bonds issued recovered during 1988, increasing from \$99 billion during the first three quarters of 1987 to \$122 billion in the corresponding period of 1988. As noted earlier, this recovery occurred notwithstanding the continued increase in interest rates and has mainly reflected the ability of borrowers to improve the quality of the instruments in terms of their liquidity features and to offer products with shorter maturities.

In 1987, new issues for floating rate notes experienced the sharpest decline among all the instruments in the international bond market. New issues totaled only \$13 billion in comparison to \$59 billion and \$51 billion in 1985 and 1986, respectively (Table 17). Only \$4.6 billion were raised through new U.S. dollar issues in 1987, and general concerns about liquidity in the floating rate note market also led to reduced issuance of notes denominated in sterling, deutsche marks, and ECUs. These liquidity concerns were of such importance to investors that the contraction in the market for floating rate notes occurred in spite of rising interest rates.

In the first three quarters of 1988, new issues of floating rate notes partially recovered for a total of \$15 billion in comparison to only \$7 billion during the first three quarters of 1987. This recovery was partially supported by rising and more volatile interest rates. In addition, the limited supply of new issues resulted in an improvement in the prices of outstanding perpetual notes. The recovery of the floating rate notes has been concentrated in sterling issues by U.K. institutions, while issues by other borrowers have remained depressed. The floating rate note market activity has faced increasing competition from euro-commercial paper and from fixed-rate notes swaps.

Despite the equity market break in October 1987, the issuance of equity-related bonds (convertibles and bonds with equity warrants attached) expanded sharply during 1987 to \$43 billion, due to a large issuance in the first three quarters of the year (Table 18). While new issues of equity-related bonds during the first three quarters of 1987 more than doubled those issued in the same period in 1986, there was little activity during the weeks following the stock market break. Subsequently this segment of the bond market recovered. During the

first three quarters of 1988, new equity-related bond issues totaled \$33 billion, marginally below the level of the first three quarters of 1987. Borrowers from Japan, who issued 65 percent of all international equity-related bonds in 1987, raised their participation to 88 percent during the first three quarters of 1988. Issuance by all other major industrial country borrowers declined in relation to the preceding year. While many industrial countries were active borrowers in the market for convertibles in 1987, only Japanese firms maintained an unchanged level of borrowing in this segment of the market during the first three quarters of 1988. Most other countries reduced their offerings during this period.

c. International short- and medium-term  
financing facilities

After a rapid expansion during 1983-86, newly arranged medium-term financing facilities contracted slightly (by 3 percent) during 1987 to \$87 billion (Table 19). The slower pace of activity reflected developments in the market for non-underwritten facilities, particularly Euro-commercial paper (ECP) programs, which declined from \$59 billion in 1986 to \$56 billion in 1987. By contrast, back-up facilities, whose most important components include note issuance facilities, bankers' acceptances and commercial paper backups, increased by 6 percent to \$31 billion in 1987. During the first three quarters of 1988, arrangements of new Eurocommercial paper programs accelerated and reached \$49 billion in comparison to \$40 billion in the preceding year, while the market for total back-up facilities contracted by 14 percent relative to the first three quarters of 1987, notwithstanding an increase in lending through multiple component facilities.

The expansion of multiple component facilities has led these instruments to account for 68 percent of total new issues of back-up facilities during the first three quarters of 1988 compared to only 27 percent in 1984. Multiple component facilities allow borrowers to select among various types of borrowing instruments so as to achieve the lowest cost of borrowing. In contrast, the use of more traditional back-up facilities decreased during most of 1984-88. U.S. corporations were the most important users of back-up facilities in 1987, accounting for 27 percent of total use in that year, but that proportion declined to 13 percent during the first three quarters of 1988. Borrowers from the United Kingdom also participated actively in this market, arranging facilities totaling \$7.5 billion in 1987 (24 percent of total usage), their share in the market continued to increase reaching 38 percent during the first three quarters of 1988.

The Eurocommercial paper market has grown substantially since it was established in 1985. It reached its peak in 1986 when programs totaling \$59 billion were arranged. Activity declined in 1987 but rose again in the first three quarters in 1988 when programs reached \$49 billion, 20 percent higher than in the preceding year. Market participants expect wider use of this instrument since commercial paper has the

potential of raising short-term funds at a lower cost than that implied by traditional bank advances. The range of borrowers in this market has diversified since 1985. For example, Japanese borrowers which accounted for only 0.8 percent of new arrangements of ECPs in 1985, represented 8 percent of new programs in the first three quarters of 1988. Borrowers from the United Kingdom, especially building societies, have increased their share from 6 percent in 1985 to 15 percent in the first three quarters of 1988. Borrowers from the United States (which included major corporations as well as major financial institutions) have continued to make extensive use of ECP arrangements, but their participation has not been as dynamic as that of borrowers from other countries. Most ECP programs are denominated in U.S. dollars, but there is a growing trend to use the ECU, the Australian dollar, the New Zealand dollar, and the Japanese yen.

d. Hedging markets

The increased volatility of interest rates and exchange rates experienced during the 1970s and 1980s stimulated the search for new instruments and techniques to transform and reallocate financial risks. The search was facilitated by ongoing financial liberalization and innovation and the relaxation of capital controls in major industrial countries. As a result, the use of interest rate and currency hedging instruments has expanded sharply. A key development that contributed to this expansion was the appearance of exchange-traded contracts as opposed to over-the-counter contracts (OTC). In comparison to OTC instruments, exchange-traded contracts have the advantage that by offering standardized terms, their associated secondary markets are relatively liquid. In addition, since the exchange acts as counterparty in all contracts, and since margin requirements must be maintained on a daily basis, exchange-traded instruments entail less credit risk than customized OTC instruments.

Trading activity in exchanges around the world has expanded not only in terms of contract volume, but also in the number and variety of instruments offered <sup>1/</sup> (Table 20).

Trading in Eurodollar interest rate future contracts, for example, has expanded rapidly since its introduction in 1981 on the Chicago Mercantile Exchange (CME). In 1987, the average monthly trading volume in Eurodollar interest rate futures at CME rose by 88 percent to 1.7 million contracts, representing a face value of \$1,700 billion (Table 21). In addition, outstanding open interest <sup>2/</sup> at the end of 1987 totaled 292,326 contracts, over a third higher than in 1986. The expansion continued in the first three quarters of 1988, when average

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<sup>1/</sup> Specific innovations on hedging instruments are discussed in Section V.

<sup>2/</sup> Open interest is the total number of contracts not offset by an opposite transaction nor fulfilled by delivery.

monthly trading volume grew by 5 percent relative to the corresponding period in 1987. The London International Financial Futures Exchange (LIFFE) and the Singapore Mercantile Exchange (SIMEX) also expanded their trading activities in Eurodollar interest rate future contracts in 1987, but the volumes traded on those exchanges were still modest in comparison with those on the CME.

Trading of Eurodollar options contracts, which started in 1985 at CME and LIFFE, also expanded sharply in 1987. On the CME, for example, these contracts increased by 46 percent to an average of 214,163 contracts per month. <sup>1/</sup> Average monthly trading volume of Eurodollar options on the CME decreased somewhat during the first three quarters of 1988. Similarly, trading activity in the Eurodollar option contract at LIFFE expanded by 67 percent in 1987. In contrast to the growing use of the SIMEX Eurodollar futures contract, the SIMEX Eurodollar option has shown a limited activity in the first three quarters of 1988, when monthly trading volume reached an average of only 983 contracts. Some observers have attributed this performance to overly high premiums.

Interest rate futures and options contracts of public sector issues have also traded actively on the major exchanges. For example, the volume of futures contracts on U.S. Treasury bonds traded on LIFFE increased from a monthly average of 23,628 contracts in 1984 to 127,360 contracts in 1987, and expanded even further during the first three quarters of 1988 to a monthly average of over 172,735 contracts. Options contracts on this bond, which started trading on LIFFE in 1986, reached a monthly average of 6,241 contracts in the first three quarters of 1988, 47 percent higher than in a comparable period in 1987. LIFFE also started a future contracts on Japanese government bonds in August 1987. After a strong beginning, the market stabilized to a monthly average of about 11,000 contracts per month. Trading of futures contracts on 90-day U.S. Treasury bills has also been large at CME, but the average volume of activity declined during the period 1982-88, moving from an average monthly volume of 549,904 contracts in 1982 to an average of only 115,376 during the first three quarters of 1988. Options contracts on U.S. Treasury bills have followed the same pattern, declining from an average monthly volume of 5,314 contracts in 1986 to an average of only 527 contracts during the first three quarters of 1988.

Trading in currency futures has also increased during 1982-88. Most of this activity has been concentrated in the United States, especially on the CME. Trading in Japanese yen futures experienced the highest growth rate among currency futures in 1987-88. <sup>2/</sup> In 1987, trading volume in these futures on the CME grew by 35 percent to an average of 446,546 contracts per month. This expansion continued in the

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<sup>1/</sup> Each contract is written on one Eurodollar futures with a face value of \$1 million.

<sup>2/</sup> Japanese yen futures have a face value of ¥ 12,500,000.

first three quarters of 1988 when the volume of trade in Japanese yen futures contracts rose to a monthly average of 526,407. Trading in currency options began in 1982 on the Philadelphia Stock Exchange (PHLX), which has remained the most active exchange for currency options. Monthly trading volumes on Japanese yen and deutsche marks experienced the highest rate of expansion in 1987, growing by 30 percent and 71 percent respectively. While trading volumes in deutsche mark options declined somewhat during the first three quarters of 1988, the average monthly volume on Japanese yen option contracts traded at PHLX grew by 40 percent relative to the first three quarters of 1987.

An important OTC hedging instrument, which emerged in significant volume in the early 1980s has been the medium-term swap. Swap transactions have been used to arbitrage differences in borrowing costs across financial markets and to reallocate the interest rate and exchange risks contained in medium-term financial transactions. <sup>1/</sup> Interest rate and currency swaps have been among the fastest growing financial instruments of the 1980s; by the end of 1987, the total amount of outstanding swap transactions reached US\$1.1 trillion (Table 22). Interest rate swaps (which constitute agreements between two parties to exchange fixed against floating rate payments, both measured on the same notional principal amount and the same maturity) accounted for 80 percent of total outstanding swap transaction in 1987, and the bulk of these transactions (79 percent) was carried out in U.S. dollars. Currency swaps accounted for 20 percent of total outstanding swaps in 1987 and totaled US\$219 billion. Swaps involving the U.S. dollar and the Japanese yen accounted for 62 percent of total currency swap agreements. In a recent survey organized by the International Swap Dealers Association (ISDA), the swap market reported a very low incidence of losses. Out of 71 major firms from the United States, the United Kingdom, Japan, Germany, France, Canada, Australia, the Netherlands, New Zealand, Sweden, and Switzerland, only 11 firms experienced any losses in 1987, a reflection of the general creditworthiness of counterparties engaged in swaps.

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<sup>1/</sup> Creditworthiness considerations however directly limit access to swaps. Creditworthy borrowers in industrial countries often use the interest rate swap market to convert their floating interest rate debt into the equivalent of fixed interest rate debt. However, since an interest rate swap involves an exchange of debt-servicing obligations (the fixed interest rate borrower agrees to service the obligations of floating interest rate borrower and vice versa), a swap is an effective hedging instrument only if each counterparty fulfills its debt-servicing obligations. Most borrowers, therefore will engage in a swap only when credit risk is perceived as low. As a result, indebted developing countries with debt-servicing difficulties have not had access to this market.

### III. Capital Market Financing to Developing Countries <sup>1/</sup>

#### 1. Financing flows and bank exposure

##### a. Overview

Bank and bond market lending to developing countries experienced a reversal in the first half of 1988, with net repayments of US\$9 billion compared to an inflow of US\$8 billion during the first half of 1987 (Table 7). The decline was fully accounted for by a substantial reduction in cross-border bank claims.

Following a recovery from a decline in banks claims of US\$3.0 billion in 1986 to an increase of US\$18.4 billion in 1987, bank claims on developing countries weakened again during the first half of 1988, resulting in a reduction in claims of US\$10.8 billion (Tables 23 and 24). Bank claims on developing countries without debt servicing problems continued to rise, however. These countries accounted for virtually all of the change in bank claims on developing countries registered in 1987; during the first half of 1988 bank claims on this group of countries declined only marginally. By contrast, bank claims on countries with recent debt servicing problems increased marginally in 1987 and accounted for all of the decline observed in the first half of 1988.

Following an increase of US\$1.7 billion during the first half of 1987, bank claims on the fifteen heavily indebted countries declined by US\$9 billion in the first six months of 1988. While this development partially reflected a slowdown in disbursements of new financing under concerted lending arrangements, the downward trend was mainly due to significant repayments by debtors as well as by deliberate decisions on the part of banks to reduce their exposures to these countries.

The data source for the mentioned bank lending figures is the Fund's International Banking Statistics (IBS) which derives these flows from changes in the stocks of bank claims on developing countries adjusted for variations in the exchange rate. These data do not only reflect actual cash flows between banks and developing countries. A number of factors, such as "write offs," certain sales of developing country debt, the accumulation of interest arrears on bank debt, and debt conversions affect the balance sheets of banks without involving financing flows with a debtor. In light of a broader use of the menu approach in the debt strategy and the large increase in interest arrears to banks in 1987, the interpretation of changes in bank claims as lending has become increasingly difficult.

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<sup>1/</sup> This section was prepared mainly by Luis M. Valdivieso.

To derive a cash flow number, an attempt was made to adjust the IBS data for some factors for which information is available. However, the information on these adjustments is incomplete and the results should therefore be interpreted cautiously. "Write-offs" and sales of claims from banks to nonbanks reduce bank claims on developing countries without involving a cash payment of principal by the debtor. If arrears accumulate, their capitalization increases bank claims on the debtor country without a cash disbursement. Adjustments to account for debt conversions are less straightforward. If the operation is in connection with a debt-for-equity swap, the adjustment to derive a pure cash flow number should be for the amount of debt extinguished at face value because there is no direct repayment from the debtor to banks. 1/ If the underlying operation is a debt exchange, at the end of which banks hold a new claim with a lower face value than the original claim, the adjustment to derive a cash flow number should only comprise the implied discount. With these different adjustments, the cash flow from banks to the 15 heavily indebted middle income countries amounted to about US\$7 billion between 1985 and end-June 1988. This compares to an IBS derived reduction in bank claims of about US\$12 billion over the same period (Table 25).

The declining trend observed in bank claims during the first half of 1988 was probably ameliorated later in the year since disbursements under concerted lending increased substantially in the fourth quarter of 1988, mainly on account of US\$4.0 billion in disbursements by Brazil (Table 26). In addition, new long-term bank commitments to developing countries reached US\$16.1 billion in the first three quarters of 1988, compared to US\$14.6 billion in the same period of the preceding year (Chart 6 and Table 27). This increase was fully explained by new commitments under concerted arrangements, as spontaneous lending to developing countries declined to US\$10.4 billion in the first three quarters of 1988 from US\$12.6 billion in the corresponding period in 1987. Spontaneous lending commitments to most developing countries in Asia and Europe declined, whereas they increased mostly to countries in the Western Hemisphere. Developing countries arrangements in other international long-term bank facilities and concerted short- and medium-term facilities remained at their 1987 level during the first three quarters of 1988, a trend which has prevailed since 1986 (Tables 28, 29 and 30).

Bond market financing to developing countries increased significantly during the first three quarters of 1988 to US\$5.4 billion after total gross issues of US\$4.9 billion in all of 1987 (Table 31).

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1/ Another possibility, if one wanted to measure the "contribution" of banks to the balance of payments needs of debtor countries, would be to adjust only for the loss banks incur in such operations and not for the face value. However, this adjustment is difficult to quantify because information about the average loss banks incur in selling claims on developing countries is limited.



As with bank lending, developing countries' access to the bond market has been restricted to those without debt servicing problems, especially large middle-income countries in Europe and a number of Asian countries. The only exceptions were Algeria, Barbados, Trinidad and Tobago, Venezuela, and the special issue of a collateralized Mexican bond related to the Mexican debt exchange concluded in February 1988.

b. Regional pattern of flows

Except for countries in the Middle East, the decline in bank claims on developing countries <sup>1/</sup> in the first half of 1988 was broadly distributed across regions (Table 24), while bond financing continued to be primarily available to developing countries in Europe and Asia (Table 23).

Bank claims on developing countries in Africa declined by US\$2.8 billion since the beginning of 1987, mainly reflecting a reduction of US\$2.0 billion in claims on Nigeria. Except for bond issues by Algeria, African countries have not raised financing in the international bond markets in recent years.

Bank claims on countries in Asia also declined by US\$4.0 billion in the first half of 1988 compared to bank lending of US\$4.6 billion registered during the same period last year and US\$14.7 billion for 1987 as a whole. These developments predominantly reflected reductions in claims on residents of Taiwan Province of China during the first half of 1988 as they repaid loans contracted in 1987. Observers consider that this borrowing was primarily a hedge against possible changes in foreign exchange rates. Moreover, reflecting strong balance of payments positions, Korea and Malaysia have significantly reduced their liabilities to commercial banks in recent years and have also reduced their issuances of new bonds. China continues to call on bank financing as well as on the bond market.

Bank claims on developing countries in Europe declined marginally in both 1987 and the first half of 1988, although this aggregate trend concealed quite diverse developments amongst these countries. In particular, bank claims on countries in Eastern Europe that are experiencing balance of payments problems and that do not have spontaneous access to international capital markets have fallen (Poland, Romania and Yugoslavia), whereas claims on a number of countries that continue to have access to capital markets have been increasing (in particular Hungary and Turkey but recently also Greece and Portugal). The latter group of countries have also stepped up the issuance of international bonds from about US\$1.1 billion in 1986 to US\$2.0 billion in 1987 and to US\$2.6 billion in the first three quarters of 1988.

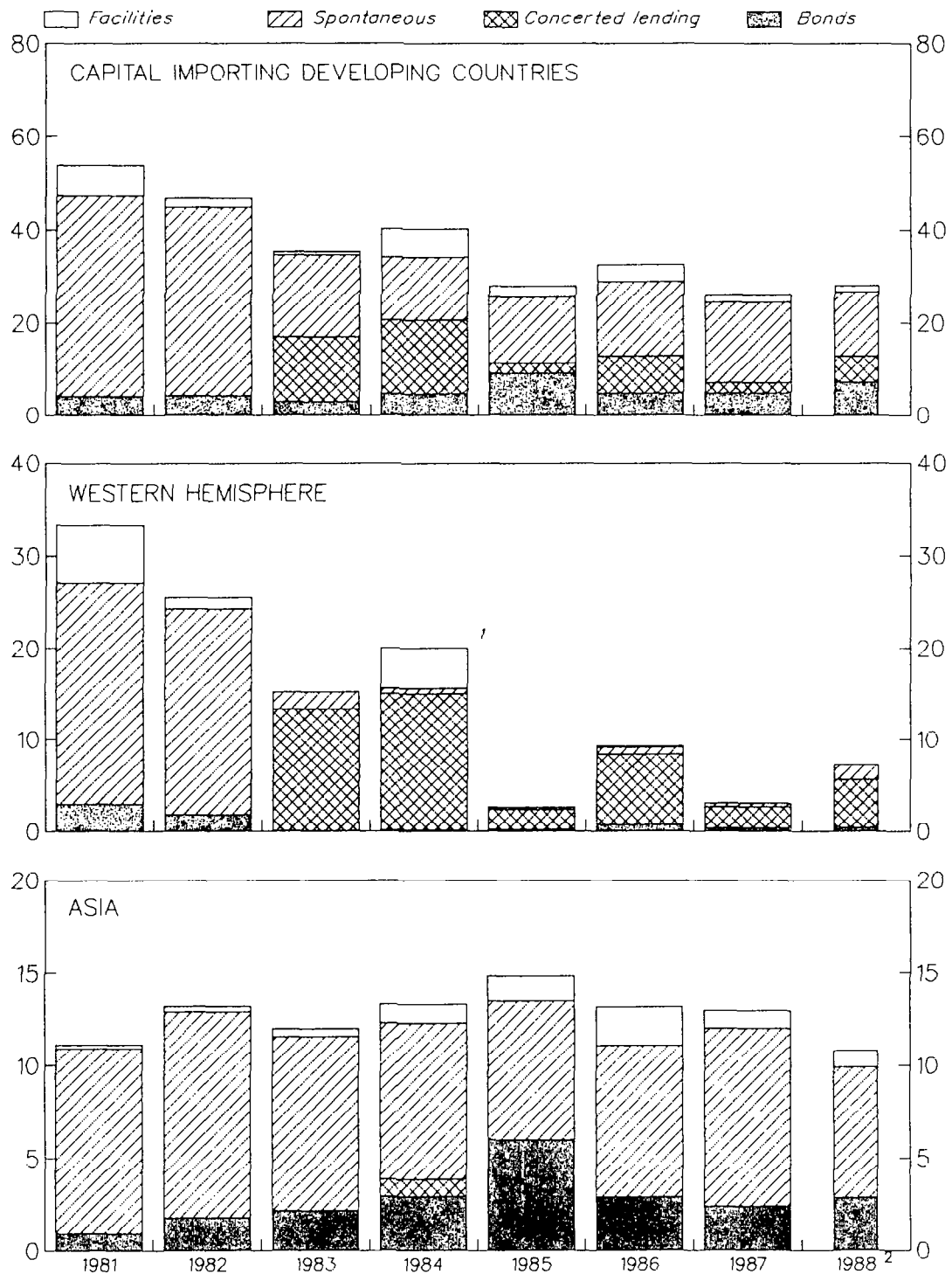
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<sup>1/</sup> The discussion in this section is based on IBS changes in cross-border bank claims unadjusted for the various factors identified above because some of those adjustment factors are not available on a disaggregated basis.

CHART 6

# BOND ISSUES AND LONG-TERM COMMITMENTS OF CREDITS AND FACILITIES TO CAPITAL IMPORTING DEVELOPING COUNTRIES, 1981-THIRD QUARTER 1988

(In billions of U.S. dollars)



Sources: Organization for Economic Cooperation and Development, *Financial Statistics Monthly*; and Fund staff estimates.

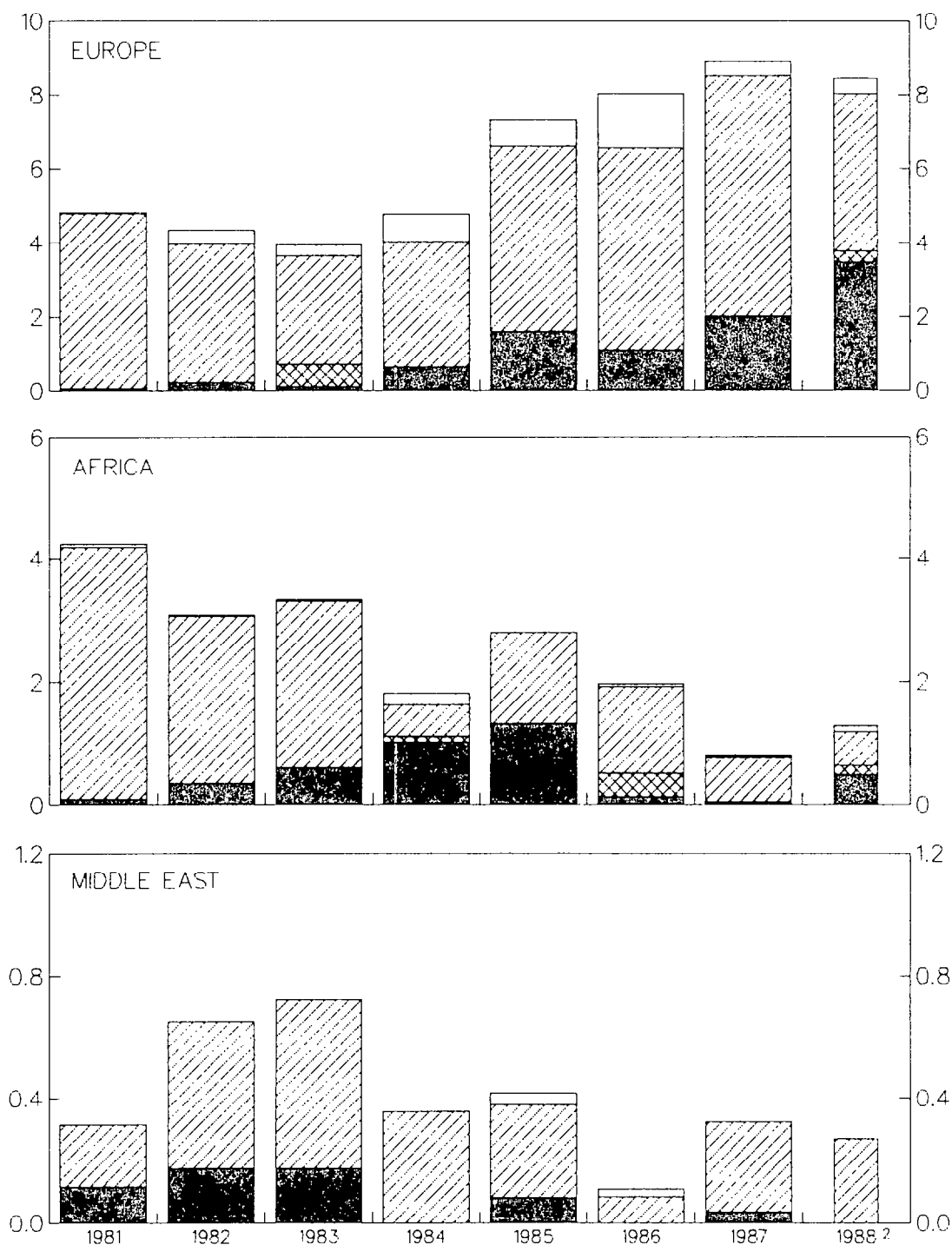
<sup>1</sup>Includes a facility arranged for Mexico.

<sup>2</sup>First three quarters annualized.



CHART 6(concluded)  
BOND ISSUES AND LONG-TERM COMMITMENTS OF CREDITS  
AND FACILITIES TO CAPITAL IMPORTING DEVELOPING  
COUNTRIES, 1981—THIRD QUARTER 1988

(In billions of U.S. dollars)



Sources: Organization for Economic Cooperation and Development, *Financial Statistics Monthly*; and Fund staff estimates.

<sup>1</sup>Includes a facility arranged for Mexico.

<sup>2</sup>First three quarters annualized.



In the Middle East, the most significant changes in recent years were Saudi Arabia's return to the bank market for US\$2.3 billion in 1987 compared to net repayments of US\$0.7 billion in 1986, and the renewed increase in borrowing from banks by the major Middle Eastern oil producers in the second quarter of 1988. Except for a minor bond issue by Israel in 1987, countries in the Middle East have not been raising funds in the international bond market.

Bank claims on developing countries in the Western Hemisphere have declined sharply recently, from an increase of US\$2.4 billion in the first half of 1987 to a net reduction of US\$7.0 billion during the same period of 1988. This reversal was largely accounted for by Mexico and Brazil, although in general, it can be attributed to an increase in debt conversions and a slowdown in disbursements under concerted lending arrangements in the first half of 1988. As noted above, Barbados, Trinidad and Tobago, Venezuela and Mexico had access to the bond market in the first half of 1988.

c. Terms

Average spreads on bank lending declined very substantially between 1983 and 1986 but have remained relatively stable since then (Table 32 and Chart 7). The reduction has been particularly pronounced for lending to countries with debt servicing problems, both in the form of concerted new money packages and restructurings of existing debt, although spreads have also been reduced for spontaneous lending to the group of developing countries at large. Thus, while spreads over LIBOR on bank lending under concerted commitments fell from 225 basis points in 1983 to 83 basis points in 1988 and spreads on restructured debt fell from 193 basis points to 95 basis points, spreads on spontaneous lending to developing countries only fell from 80 basis points in 1983 to 56 points in 1988 (Table 33).

The reduction was more pronounced for the three large debtor countries (Argentina, Brazil, and Mexico) than for the remaining countries involved in restructuring and concerted lending packages, although the difference has narrowed recently, in particular with regard to restructuring of existing debt. The latter development reflects renegotiation by a number of smaller creditors of previously agreed MYRAS (Uruguay and Chile).

Average maturities under restructuring agreements have lengthened significantly from 7 1/2 years in 1983 to about 17 years in 1986-88 (Table 33), while those for concerted lending arrangements have also lengthened considerably, although much less than in restructuring arrangements.

d. Trends in banks' exposure

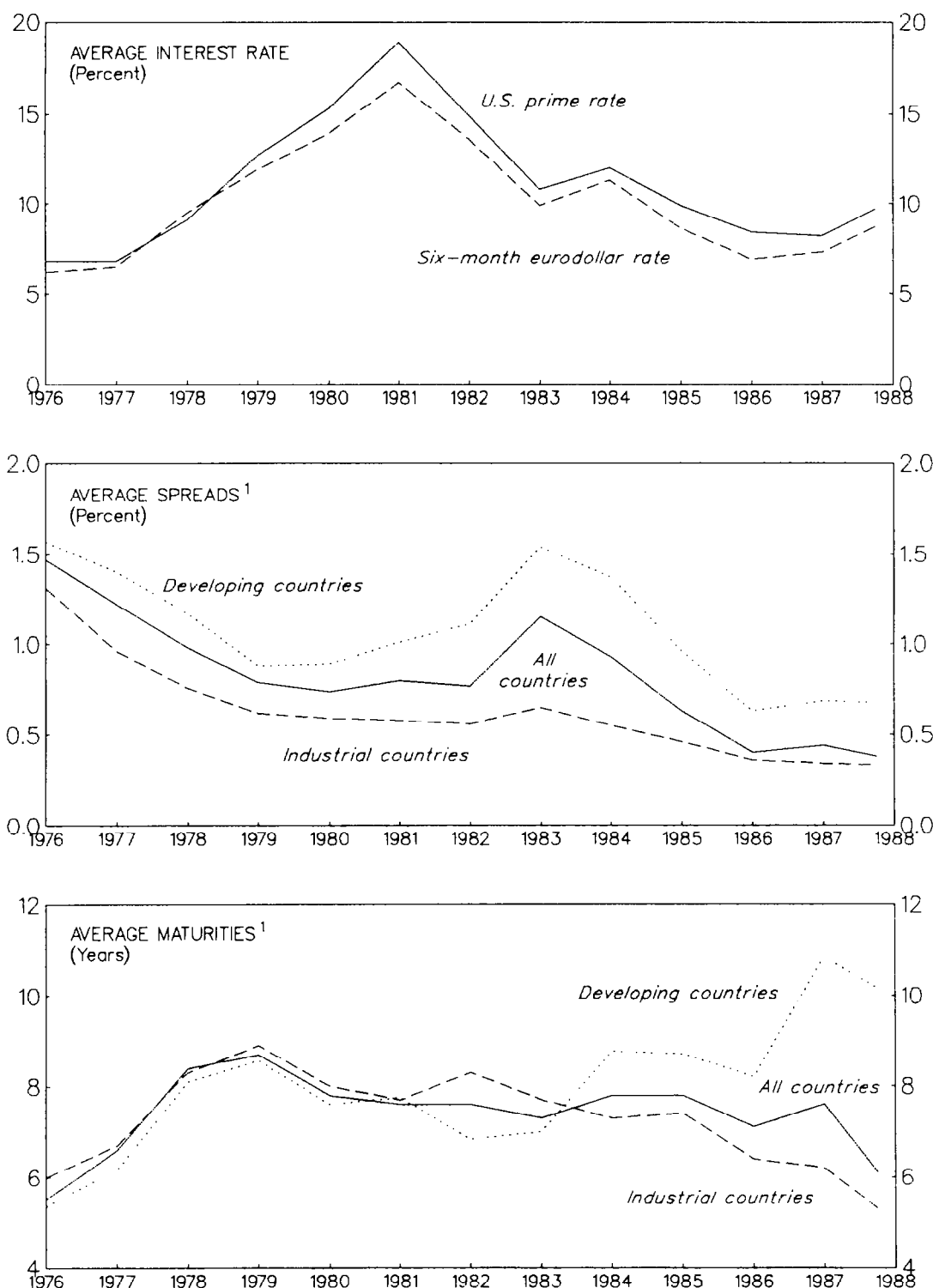
In the normal conduct of business, banks would seek to maximize post-tax returns on equity over some period, perhaps guided by some dynamic considerations about their strategic relative position in the market. To achieve this objective they would undertake the least costly new activities, seek to improve the quality of their portfolios, and restructure their balance sheets so as to minimize the cost of raising capital. It is therefore not surprising that, as the sense of crisis faded away, banks first became increasingly reluctant to increase their exposure to developing countries, and subsequently took steps to swap or liquidate some of their claims. By the end of 1987, the share of BIS reporting banks' claims on capital importing developing countries in total external assets had declined by about 5 percentage points since its peak in 1985, mostly on account of a decline in claims on the Western Hemisphere (Table 34).

The pace at which commercial banks are trimming their claims on developing countries appears to have accelerated during the first part of 1988. U.S. banks' claims declined by US\$9.8 billion in the first half of 1988, or at an annualized rate of 16.2 percent, the highest recorded in recent times (Table 35-36). Claims on Western Hemisphere developing countries declined the most in absolute terms, although in relative terms the reduction was comparable to that of other regions. Among banks which are shedding their claims, the greatest absolute reduction was observed for the nine money center banks and the 13 next largest banks. The reduction relative to total assets was more intense for smaller banks (Chart 8). U.K. banks' claims on all regions, except the Middle East, also declined during the first half of 1988 signaling a significant departure from recent trends when claims remained constant. The observed decline was relatively greater in Africa and Europe (Table 37).

Data on claims of banks in other major industrial countries are either available with some delay, or very limited, or presented on a non-consolidated basis. Despite these shortcomings, the decline in claims on developing countries was also apparent for banks in France and Italy. In the case of French banks, for which data is only available up to the third quarter of 1987, the declining trend is dominated by a rapid reduction in claims on Asia, although there was also a smaller decline in claims on Africa and the Western Hemisphere, and moderate increases in claims on the Middle East and Europe. Based again on information available up to the third quarter of 1987, Italian banks' claims also showed a downward trend, although it was uniform across regions.

By contrast, German and Japanese banks' claims on developing countries appear to have grown somewhat, although with marked regional differences. German banks' claims--adjusted approximately for exchange rate changes--appear to have increased somewhat during the first half of 1988, especially those on Europe and the Western Hemisphere (Table 38). While there is no information on Japanese banks' claims by region, there

CHART 7  
TERMS ON INTERNATIONAL BANK LENDING  
COMMITMENTS, 1976–THIRD QUARTER OF 1988



Sources: Organization for Economic Cooperation and Development, *Financial Market Trends*; International Monetary Fund, *International Financial Statistics*; and Fund staff estimates.

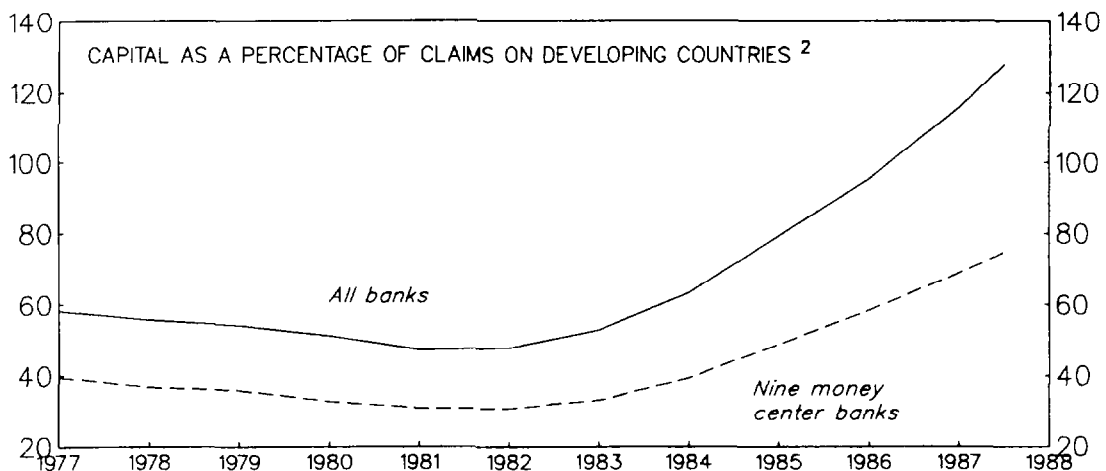
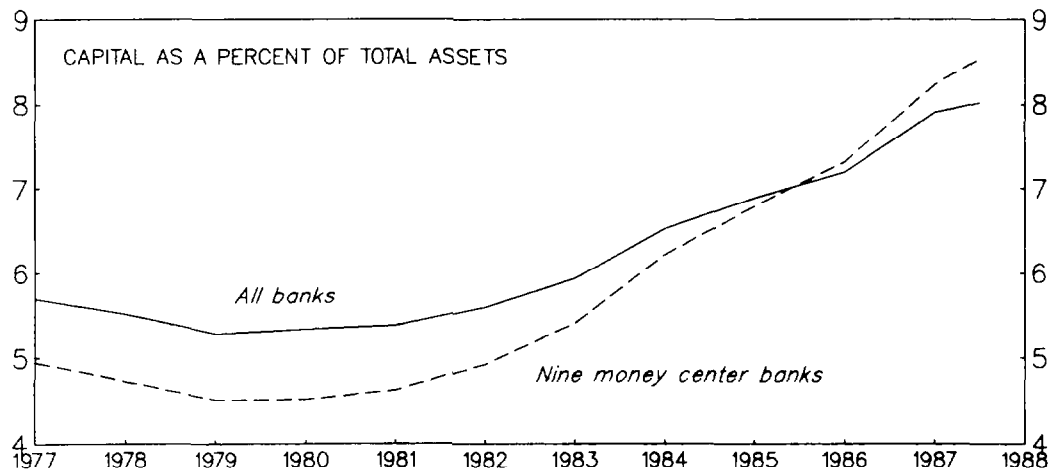
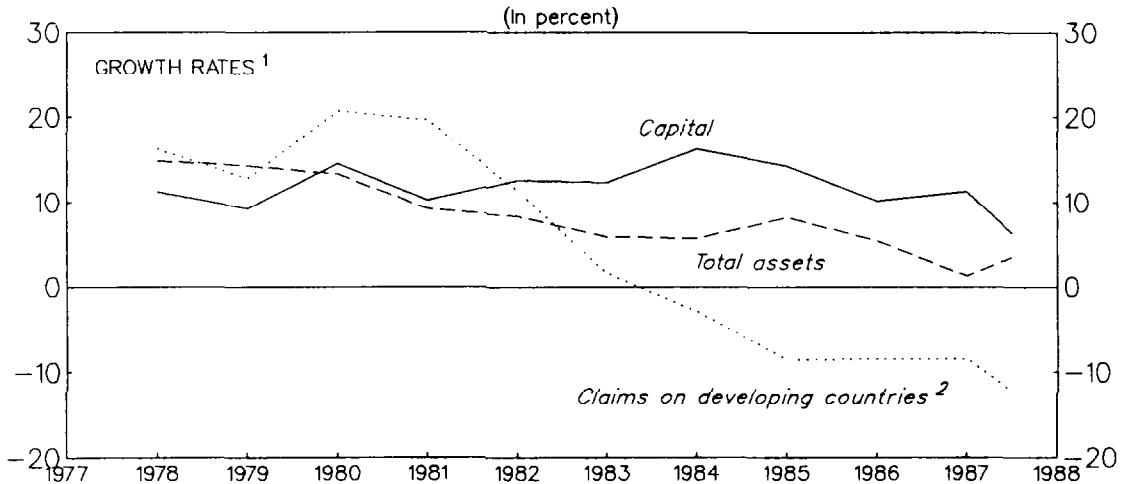
<sup>1</sup> New publicized long-term international bank credit commitments.



1  
2  
3

4

CHART 8  
SELECTED BALANCE SHEET DATA FOR U.S. BANKS,  
1977—FIRST HALF 1988



Source: Federal Financial Institutions Examination Council, *Country Exposure Lending Survey*.  
<sup>1</sup> Twelve month growth rates.  
<sup>2</sup> Excluding Offshore Centers.



are clear indications that they have continued providing financing to developing countries, particularly to those in Asia while transferring claims to the factoring company in the Cayman Islands and selling outright small amounts when permitted. It has been reported that the 13 city banks of Japan reduced their exposure to developing countries by US\$1.4 billion, or about 5 percent in the 12-month period ending March 31, 1988. <sup>1/</sup>

2. Banks' views and attitudes toward financing to developing countries

a. Banks' views on the debt strategy

During the course of the discussions with the mission, banks generally acknowledged some improvement in the debt situation, but thought it still far from being resolved. In their view, the case-by-case approach has been instrumental in dispelling the systemic threats that followed the 1982 crisis, but it has failed to achieve tangible improvements in the overall economic conditions of debtor countries, despite favorable international economic conditions. Banks continue to stress the importance of further growth-oriented adjustment and fundamental structural changes in developing countries in the solution of the debt problem. At the same time, they have become more forceful in their request for greater official involvement, whether in the form of additional financial contributions, or through the provision of suitable guarantees.

Banks recognized that the sustained implementation of the debt strategy has allowed them an opportunity to strengthen their capital positions, and, ultimately, it has permitted them to focus on longer run profitability considerations rather than short-term responses to a crisis. After a period of rapid provisioning in 1987, banks' positions have by and large improved to the point where they can concentrate on adjusting their balance sheets so as to safeguard or enhance, their credit standings. Banks also maintained that a stronger financial position gave them the necessary flexibility to choose among alternative menu items currently available to finance developing countries. Banks expressed great concern, however, lest their renewed strength be misunderstood by debtor countries as providing the basis for more generalized debt relief.

In discussing the future of the debt situation, market participants were not very optimistic. In their view, there are still many down-side risks in the external environment. Industrial countries' growth could falter; commodity prices, while temporarily on an upward swing, could decline as a result of the developments in industrial countries; continued disequilibria in major industrial countries could increase the volatility of international interest rates and the exchange rates of major currencies; interest rates, which were already above last year's

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<sup>1/</sup> American Banker, September 21, 1988, page 20.

level, could rise further; and, finally, trade possibilities were precarious for many developing countries. On the debtor countries' side, banks recognize the constraints imposed by large debt overhangs, but see no alternative to the adoption of strong adjustment efforts backed by suitable financing programs from official sources.

Banks were generally supportive of continuing with the cooperative approach. They have come to realize, however, that there is need for further evolution in the menu of market-related options, especially, although not exclusively, in areas related to voluntary debt-reducing techniques. Banks emphasized that the applicability of broader options should continue to be appropriately linked to individual country performance, while providing countries with incentives to adopt required adjustment and structural reform measures. In portraying their role in the strategy, banks generally viewed their participation as limited to short-term, trade-related, and specific project lending. They recognized, nonetheless, that the cohesion of the banking community has been reduced, and thus the form in which each bank participates will reflect its individual interest.

b. Banks' attitudes toward new lending

Prospects for bank lending to developing countries with debt servicing problems have deteriorated further since the wave of loan loss provisioning in mid-1987. Banks have openly indicated their lack of interest in medium- and long-term general purpose financing, and have redirected their efforts to the rationalization of portfolios. This shift in banks' attitudes has occurred at a time when the outlook for the world economy was relatively favorable, and despite both continued adjustment efforts on the part of many indebted developing countries and greater net financial contributions to financial packages by the official institutions and creditor governments. This change in attitude does not appear to have been mitigated by the broadening of menu options or the availability of new mechanisms to reduce the vulnerability of developing countries to external shocks, such as the CCFF and a broader use of hedging instruments.

With the exception of Japanese banks which still consider, on a case-by-case basis, some general purpose financing to certain Asian countries without debt servicing problems, international commercial banks see scope only for relatively limited amounts of spontaneous short-term trade and project financing to developing countries. Under appropriate conditions, some banks, especially in Germany and the Netherlands, would consider expanded export prefinancing and interbank credit. In the absence of official export credit guarantees and/or parallel or cofinancing arrangements with the IBRD, most banks' financing would be addressed to supporting the businesses of their industrial country clients. A few of the largest U.S., Canadian, and European banks, with branch-networks in some developing countries, may be willing to consider some general purpose financing to protect their own long-term business interests in selected countries.

The banks' aversion to increasing unguaranteed exposures to developing countries reflects a combination of factors. Foremost among them is the banks' continued lack of confidence that most debtors will be able to sustain adjustment efforts for the next several years and ultimately will not be able to service their debts. While this factor was judged as crucial by most market participants, some banks, particularly in Switzerland, emphasized the need to differentiate countries both in terms of their performance and their potential to grow out of debt in future concerted lending exercises. Other banks, particularly in the United Kingdom, indicated the importance they attach to economic managerial capacity in borrowing countries, and to explicit financial and policy linkages to programs supported by multilateral institutions, especially the Fund. In the view of most banks, effective linkages should translate into positive net financial contributions by official and multilateral sources over the period of adjustment.

Banks' attitudes towards new lending are also shaped by intrabank burden-sharing considerations, including those related to the problem of free riders and the erosion in base exposure associated with exchange rates and transfer, conversion or liquidation of claims. As regards the free rider problem, banks have reluctantly recognized that certain banks, particularly small ones, may have reasons for not participating in concerted lending packages. Large banks do not think, however, the departure of the smaller banks should be costless. The problem has grown in size when middle-sized banks wanted to refrain from participating. At first, banks tried to provide price incentives--including larger fees and spreads--for early participation. More recently, however, banks have moved to consider imposing penalties, but still have different views about the mechanisms to be used. Some banks, specially in the U.S. and Switzerland, contend that exit bonds, if suitably designed, would provide a way out while still contributing to the partial fulfillment of the debtor country's cash needs, and the streamlining of the creditor group. Other banks, like those in Germany and France, contend that interest capitalization may be the most effective way to penalize free riders. Finally, other banks advocate the need to endow new claims with some degree of seniority over old ones through collateralization, novation (i.e., changing existing loans for new fully serviceable loans for banks participating in new money packages), or linking the return on new claims to the performance of a major commodity.

As for the problem of the erosion in the new money base, some banks maintain that given the difficulties in ascertaining whether claims have changed ownership or have actually been extinguished, frequent revisions in the base exposure data represent, in the absence of effective suspension of interest payments to nonparticipants, a surrender to free riders. In the recent package for Brazil, where the new money base date was changed from 1982 to 1987, some banks tried for a time to resist the request to increase their exposure in relation to those claims acquired after the original base date. Other banks suggested to fix national

shares to define contributions to new packages, with creditor governments covering any shortfalls due to erosion of the base.

Banks' attitudes towards lending must also be seen against the regulatory, supervisory, and tax framework. Banks assign particular importance to the level of provisioning required for new sovereign loans, as well as to the associated tax treatment. Differences in provisioning requirements and the associated potential impact on bank cohesion have become less important since 1987, in light of the greater conversion of actual provisioning levels. Banks in Belgium, Japan, and the United States, however, continued to feel at a relative disadvantage vis-à-vis banks in other major financial centers, due to the zero or limited tax deductibility of provisions.

Banks' lending preferences are also affected by whether provisioning is required against all claims or only against medium- and long-term claims on a particular country, and by the nature--general or country specific--of the provisioning requirements. Most banks indicated, however, that the maturity coverage of provisioning requirements or practices affects mostly the type of lending they would be willing to undertake, while country-specific provisioning affects the level of operations for a particular country. In this latter regard, some banks, particularly in the U.S. and Japan, considered the classification of loans by the profile of their interest income stream--on a cash or accrual basis--a more binding factor in their lending decisions.

In commenting about the likely impact of the recently adopted risk-based capital adequacy requirements, some banks, particularly those in Japan and the U.S., indicated that the zero risk weight assigned to lending to OECD-GAB countries, might well reduce further the incentives for banks to lend to developing countries outside this group.

Finally, many banks, particularly in Germany, Switzerland, and the United States, indicated that an additional factor inhibiting new lending was the increasing difficulty bank executives face in justifying to their boards and shareholders the rationale for embarking on new lending while simultaneously accepting the broad use of debt-reducing techniques within the same financial packages. Some banks, however, recognized that this presented a problem mainly for banks which did not intend to maintain long-term relations with the developing country in question.

c. Banks' attitudes toward restructuring

During the first 11 months of 1988, new agreements to restructure commercial bank debt were finalized for Brazil, The Gambia, Guinea, Malawi, Togo, and Yugoslavia; agreement in principle was reached for Côte d'Ivoire (not operative), Nigeria, and Trinidad and Tobago; and Uruguay and Chile signed an agreement with creditors on the amendment of earlier restructuring packages (Tables 39-40). The amounts restructured

amounted to US\$76 billion in the first 11 months of 1988 compared to US\$92 billion in 1987 (Table 41).

The terms of the restructuring arrangements agreed to during the first eleven months of 1988 have remained stable in relation to 1987, after their marked improvement for debtors during 1985-1986 (Tables 42). Weighted average spreads have settled in the neighborhood of 83 basis points over LIBOR, 110 basis points below the average prevailing in 1983. Average maturities have lengthened to about 17 years compared to 15 years in 1986-87 and 7 1/2 years in 1983. In general, terms have been more favorable for larger debtors mostly in the Western Hemisphere.

In the course of the discussions, banks indicated that the above evolution of terms should be carefully assessed, as it did not reflect an improvement in these countries' creditworthiness. But banks would only be willing to consider such terms for countries that were undertaking strong internationally supported adjustment efforts. Some banks indicated that developing countries which are close to market re-entry should agree to terms on their bank debt restructuring arrangements, if any, as close to the market as possible; such terms would probably involve higher spreads and shorter maturities than those recently agreed.

Several banks viewed longer consolidation periods, as opposed to annual restructurings, as a vehicle to facilitate adjustment and to reduce the burden on participants in the process. However, in their view, longer consolidation periods should be associated with strong adjustment efforts and concomitant support from the official bilateral and international sector. Consequently, banks have continued to subdivide longer consolidation periods into tranches, trying to link the effectiveness of selected tranches to the adoption of certain policy measures and/or to the financial contribution of other creditors, sometimes in the form of disbursements under new facilities, or sometimes through parallel rescheduling exercises by the official sector. More recently, in the case of Trinidad and Tobago, banks have proposed linking the proportion of amortization included in the second tranche of the restructuring to the behavior of the oil price. In an increasing number of cases since 1987, however, banks have favored restructuring the entire stock of outstanding medium-term claims (Argentina, The Gambia, Guinea, Malawi, Mozambique, Nigeria, Togo and Yugoslavia).

In assessing the relative position of banks in future rescheduling cycles, some banks indicated that the weakest link in the negotiation of restructuring terms, and some of the options attached to them, were those banks which were less provisioned against loan-losses.

Finally, some banks, especially in France and Switzerland, expressed concern about the likely implications that recently adopted Paris Club concessional rescheduling options for low-income countries might have on the terms of the unguaranteed portion of the loans



rescheduled. Banks feared they were going to be compelled to apply terms comparable to those granted by their governments, especially if the option chosen by their government was to extinguish some of the claims.

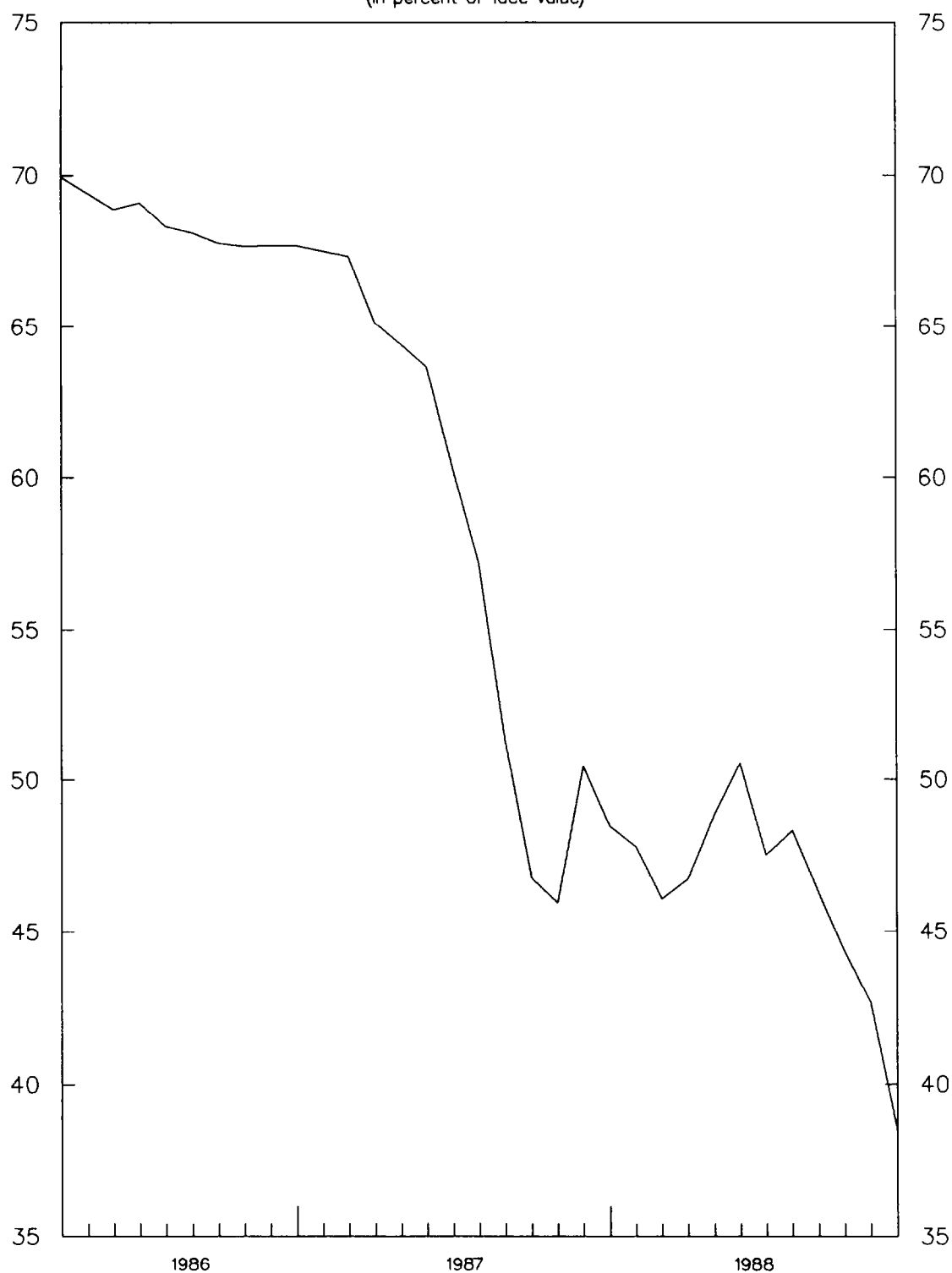
d. Banks' attitudes toward the secondary market

The secondary market of bank claims on developing countries has expanded rapidly since it emerged in 1982, although it still remains fragmented and inefficient. The origin, structure, and operation of this market were discussed in detail in the staff's "Information Note on the Secondary Market, Mexican Debt Exchange and Bolivian Buyback," (EBS/88/98, 5/23/88). Developments until mid-1988 were described in the paper "Recent Developments in Commercial Bank Financing and Restructuring for Developing countries" (SM/88/172, 8/10/88). Accordingly, this section briefly updates developments since then, and focuses on describing banks' attitudes towards participating in this market, the importance banks' attach to secondary market prices in formulating their lending decisions, the role played by regulatory, accounting and tax factors, and banks' views about its future evolution.

Secondary market prices have declined sharply recently (Chart 9). Between July and mid-November 1988, the weighted average price for the 15 heavily indebted countries declined by 10 percentage points, bringing average prices for claims on that group of countries to about 38 cents to the dollar. Particularly large declines of 14-16 percentage points were registered in prices of claims on Venezuela, Brazil, and Ecuador. Moderate declines of 6-8 percentage points were registered for Colombia, Mexico, Argentina, and Chile, while Yugoslavia and Uruguay were among the few whose prices did not change much.

Some banks contend this secular declining trend is associated primarily with growing uncertainty about investment opportunities in developing countries. Others, however, attribute much of the decline in prices to recent heavy selling of claims by U.S. regional banks in an attempt to clean their books before year-end. In the view of some market participants, downward pressures on prices are expected to continue until the market assimilates a number of recent events such as the impact of corrective policies adopted in major debtor countries and the changes introduced in the Mexican and Venezuelan debt-equity schemes. In their view, the prospects for firmer, or perhaps rising, secondary market prices will depend not only on continued adjustment efforts on the part of the debtor countries and suitable changes to their foreign investment regulations so as to bring nonbank private sector buyers into the market, but also on developments in the world economy and the debt strategy in general. It was recognized that a precondition for attracting nonbank investors to the secondary market would be the availability of mechanisms to reduce the risks of default on the income stream and the opportunities of converting claims into equity. Other market participants thought the lack of interest in participation was due to the

CHART 9  
SECONDARY MARKET PRICES FOR  
DEVELOPING COUNTRY LOANS<sup>1</sup>  
(in percent of face value)



Source: Salomon Bros.

<sup>1</sup>Weighted average for 15 heavily-indebted countries.



lack of adequate methods to evaluate the underlying relative values of different claims.

In banks' view, the secondary market is progressively becoming more helpful in assessing the real value of some of their outstanding claims. Several banks, however, face problems in ascertaining the meaning of available prices, especially for countries where there is little trading of claims, and for packages of claims with varying degrees of risk. The meaning of prices is also blurred by the occasional dumping of large amounts of claims, and the difficulties in arbitraging in a market with virtually no market participants willing to take long positions. Some banks noted that the weakness of these prices to convey appropriate signals of the value of the claims was best illustrated by recurrent cases in which equal prices were being quoted for claims on debtor countries with opposite postures towards debt-servicing.

Despite these problems, banks thought these markets provided claim holders with a suitable vehicle to rationalize their portfolios voluntarily and quietly, or to reduce exposure. Several banks expressed the view that some small- and medium-sized countries with weak external positions, bleak outlook and relatively low commercial external debt might utilize this market, perhaps with official support, to liquidate their liabilities to commercial banks in an orderly way, whether in the form of direct cash purchases or partial conversions.

Several banks raised concerns about the regulatory, accounting and taxation issues related to operations in this market. On the regulatory side, given the difficulties in interpreting the meaning of prices, banks have problems with using them as yardsticks for determining appropriate provisioning levels. In fact, the level of provisioning is usually guided by either regulatory requirements, or in countries without mandatory provisioning, by internal guidelines on provisioning, and by the need to support stock prices. Some banks also wondered whether it might be possible to modify the accounting rules in some countries so as to eliminate the possible contamination of claims in connection with reducing exposures and to enable some banks without a strong provisioning position to use this market to absorb partial losses. Finally, some banks felt at a disadvantage with respect to those banks which have been using this market to swap claims across countries to take advantage of favorable policies in their countries with respect to the tax treatment of general losses.

e. Banks' attitudes toward selected menu options

(1) Debt conversions

Debt conversion operations under official schemes continued to expand in the third quarter of 1988, bringing the total cumulative operations during the year to \$4.9 billion, as high as in all of 1987 and higher than in 1984-86 combined (Table 43). The observed growth was led

by conversions in a few countries, with Chile being the most active, followed by Brazil and Mexico. High activity was also recorded in Jamaica and Ecuador. In other cases, like Peru and Nigeria, the governments have already announced their programs, but they are expected to enter into operation only in 1989.

In spite of this dynamism, banks identified a number of factors inhibiting an expanded role for themselves in this kind of activity. First, there is a widespread view among regulators that banks' main fiduciary function is contradicted by extensive equity holdings. In most countries, the authorities impose portfolio limitations on equity in relation to total assets. Thus, on occasion, banks have had to request a relaxation of such rules in order to engage in this kind of operation. Banks in the U.S., in particular, obtained special rulings from Federal regulators in August 1987 and February 1988 in order to expand their equity holdings of nonfinancial companies in developing countries. The ruling specified a time limit over which the banks have to dispose of those holdings. In contrast with the above, some banks in other countries are not legally limited in converting their claims for equity, but view the tax treatment of losses accrued in the conversion as a particularly inhibiting factor.

A second important factor limiting broader applicability of debt-to-equity schemes consists of the type of claims that are commonly being offered in exchange (i.e., medium- and long-term claims on the public sector and previously restructured debt), by restrictions placed on the sectors for which conversions are authorized, and by convertibility and repatriation limitations. Most banks agreed that a faster growth of debt conversion transactions was possible only if linked to a broadly based and determined privatization program supported by significant changes in attitudes toward foreign direct investment. The danger, in the banks' view, is that before such a structural reform is undertaken, a number of political constraints may have worked to reduce the attractiveness of such conversion programs.

Banks also raised the issue of pricing. In some countries, an auction system has been used to determine the price at which debt is redeemed, although most countries have attempted to set a band of acceptable results for the "clearing price." In other countries, the discount is determined through bilateral negotiations. Most banks were inclined to favor the auction system, if only because bilateral negotiations have proved to be protracted and cumbersome. Some banks indicated that clear and stable rules governing the conversion are as important as having a market-based pricing system.

Finally, some banks recognized that the expansion of debt conversion programs can also be limited by macroeconomic concerns in the debtor country. In particular, banks acknowledged that sizable debt conversion programs may impair the ability of the country to manage its internal economic affairs--particularly monetary policy, and could increase the external financing requirement.

## (2) Exit bonds

Exit bonds have proved to be a suitable vehicle for banks wishing to clear their portfolios, while permitting a streamlining of the creditor group. When they were firstly introduced in the case of Argentina in 1987, exit bonds were aimed at permitting the departure of banks with very small exposures, and for that reason the maximum amount that could be acquired by each bank was small (US\$5 million). Also, and perhaps due to the belief that exiting banks had to be penalized dearly, the terms on these instruments were set at 25 years maturity and 4 percent interest rate, while their ownership was not transferable.

During the last year, exit bonds have also begun to play a *supportive role for medium- and large-sized banks* wishing to improve the risk profile of their portfolios while eliminating their future commitment to new money or restructuring arrangements. The latest version of exit bonds, used in the case of Brazil in 1988, was designed to fulfill banks' preferences in this regard. The maximum amount of debt convertible into exit bonds was set at \$5 billion, each bank being allowed to acquire up to \$15 million, the interest rate payable was set at 6 percent per annum, and bonds have become more tradeable, as they can be converted into fully marketable domestic government obligations.

Some banks believe that exit bonds should be the only securitization option available to creditors in cases where the problem is one of liquidity, as opposed to solvency. Banks fear that if securitization extends to other types of financing, it would undermine the prospects for the provision of new money. Other banks felt existing regulatory and tax treatment of losses as well as the contamination problem, inhibited a broader use of exit bonds.

## (3) Buybacks

The first direct buyback scheme with donor support from creditor governments was the operation for Bolivia in 1988. Under this arrangement, Bolivia offered to buy back its commercial bank debt at 11 cents to the dollar. In the end, US\$253 million of debt was retired via cash payments, US\$64 million was exchanged for US\$7 million in collateralized 25-year bonds, and the remainder extinguished through a direct return of US\$16 million of claims to Bolivia by a donor country which included a minor debt-for-nature swap. After these operations, Bolivia's debt to banks was reduced from US\$660 million to US\$327 million.

Regardless of whether they participated in the scheme or not, banks were generally supportive of the voluntary character of this scheme, but anticipated difficulties in justifying its broader applicability. Most participating banks welcomed creditor government support through donations and emphasized the need to obtain even greater official support, including from multilaterals. Some banks observed the importance their

boards attached to donated resources and, in the case where the country's own resources are involved, to the need to segregate those resources from general resources, perhaps by linking the former to a commodity windfall or to overperformance in an adjustment program. Banks thought these considerations were especially important when a buy-back formed part of a package entailing new money. Some of these principles underlie a recent agreement with Chile, where there is a provision to enable Chile to buy back or to exchange up to \$2 billion of its debt using its own resources, without breaching the principles of their restructuring arrangements and/or fully pre-empting the possibilities of new financing. As regards the latter, if Chile requests concerted lending before the end of 1989, it will lose the repricing agreed in these amendments.

As regards the pricing system to be used in determining the discounts in these operations, few banks thought donors should intervene in fixing the discount, whereas others saw the benefits of a free negotiation. Those who preferred a market-determined system, pointed not only to the limitations that emerge from intervention, but to the difficulties in arriving at internationally competitive pricing in the context of bilateral debt buybacks arrangements, like the one adopted by Peru as part of the rescheduling with Socialist countries in 1983.

Some banks expressed concern about the terms which would be applicable to the debt that has not been retired and wondered whether the temporary relaxation of regulatory, accounting, and taxation requirements granted by some countries to the treatment of losses in the Bolivian case could not be made a permanent feature for buyback arrangements.

#### (4) Debt exchanges

In late December 1987, the Mexican Authorities and Morgan Guaranty Trust invited creditor banks to participate voluntarily in the exchange of certain medium-term public sector debt for newly issued collateralized Mexican bonds. The details of these scheme were extensively reported in the staff's information note referred to above. This section will only provide a summary of the discussions held with market participants on what determined their responses and what, in their view, could be done to enhance the attractiveness of such schemes. It must be said at the outset that some banks were, as a matter of principle, completely opposed to the idea of debt exchanges below par value.

In the Mexican scheme, banks were given until February 26, 1988 to offer claims in exchange for the new bonds. In the event, 139 banks made bids covering US\$6.7 billion of old debt. Mexico accepted bids from 95 banks for US\$3.7 billion in claims and exchanged them for US\$2.6 billion in new bonds, an average exchange ratio of \$1.4 of old debt for \$1 of new bonds. Thus, by using US\$0.5 billion of its reserves to collateralize the new bonds, Mexico reduced its debt by US\$1.1 billion. Most exchange offers were in the range of \$1.41 to \$1.54 of old

debt for \$1 of new bonds, a result which is consistent with conditions prevailing in the secondary market at that time.

Among successful tenders, Japanese banks offered the largest amount (US\$1.1 billion of which some \$0.8 billion was accepted) followed by U.S. and Canadian banks. Of the 30 U.S. banks tendered bids, only two or three were money center banks. Participation of European banks was relatively less important and uneven, partly reflecting the diversity of regulatory practices, the relative strengths in balance sheets, the varied tax implications of disposing of claims at a loss, and different perceptions of risk.

Most participating banks accepted the scheme as a means of improving portfolio quality, rather than as an exit instrument, even though it was believed that the acquired bond would effectively be excluded from future restructuring and the base exposure for new money. Except for a few small banks that wanted to use the bond as an exit instrument, participating banks did not offer to exchange a large portion of their portfolio. Nor did they swap their positions on Mexico in anticipation of the exchange. Provisioning levels for both the debt and the bond and their taxation were important factors in determining the amount tendered for exchange.

Participating banks were supportive of the auction pricing system insofar as it permitted them to accommodate differences among banks in their perceptions of risk, levels of provisioning, and the support received by the respective regulatory authorities. Most banks which participated in this auction were willing to consider participation in future debt exchanges, even though some of them would prefer better conditions. Other banks believed this kind of scheme should be viewed as an additional mechanism to help resolve the debt problem, and thought that it might be useful to have less conspicuous schemes where they could participate quietly when they thought it useful, rather than having the success or failure of a scheme judged under the glow of publicity.

In the view of several banks, various changes could enhance the scheme's attractiveness and broaden its applicability. First, aware that the largest portion of the present value of a long term security is in the stream of interest payment, banks were keen to obtain some collateralization of interest. The provision of official guarantees was considered the most direct route. Other banks indicated that a technique could also be devised in which the country itself contributes to a cash reserve fund that would support future interest payments, as was done in Hungary in 1986.

Banks were also concerned with certain characteristics of the security that substitutes for the old debt. Some banks expressed interest in a bond with shorter maturities, higher spreads, and explicit seniority over old debt, both in terms of exemption from rescheduling and from the new money base, and in terms of the interest payments.



Only a few banks indicated preference for fixed rates or for a currency denomination option. Also, to enhance tradability of the instrument, some banks suggested that larger amounts of claims be exchanged, with the acquisition of collaterals funded by a pool of official sources. Some banks have suggested that it would be desirable to use an equity-related instrument (rather than a debt instrument) so as to enable holders of exchanged claims to participate in the gains arising from any future improvement in the overall conditions of the country.

Banks also attached importance to the role played by the pricing system. Some banks would have preferred a fixed offer price. Using the auction system certainly permitted Mexico to maximize the discount obtained from each creditor. Some banks wondered, however, what impact this system might have upon the cohesion of the banking community, and ultimately on banks' willingness to participate in debt exchanges. Some banks would not generally approve schemes that required creditors to disclose unilaterally how much they are willing to lose. They would rather support a scheme where more negotiation is allowed.

As banks view the debt exchanges as an expansion of the menu, they would like to obtain assurances about the quality of macroeconomic policies undertaken by the debtor country. Some banks would not object to countries using their own resources (international reserves or expected export earnings), to fund debt exchanges provided they are kept as separate as possible from new money packages.

Finally, in commenting on the role played by regulatory, accounting and taxation factors, many banks--mostly in continental Europe--noted that their participation in the scheme was inhibited by regulations that do not allow a reassignment of risk on the collateralized portion of the transaction (the bond remains as Mexican risk); the need in some countries to make nontax-deductible provisions on the newly acquired bond; and the taxation effect that can arise when provisions are higher than the loss realized in the exchange or tax deductions on provisioning on bonds are smaller than on loans. Some banks' decision to participate was also affected by the contagion or contamination effect that arises out of the requirement under certain regulatory schemes to mark the bond to market and to extend this valuation to the rest of the unexchanged claims on that country.

#### IV. International Equity Markets and Macroeconomic and Financial Markets Stability 1/

The sharp declines in global equity prices during mid-October 1987 demonstrated the speed with which large shocks can be transmitted across increasingly integrated financial markets. A number of studies have sought to identify the factors that contributed to such equity market

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1/ This section was mainly prepared by Donald J. Mathieson.

instability as well as the structural and regulatory policy changes that would improve the performance of these markets. The next four sections review the principal conclusions and policy recommendations of these studies.

1. Structural changes in global equity markets

During the 1970s and 1980s, major securities markets became more integrated as restrictions on capital flows were reduced, regulatory barriers limiting the access of foreign borrowers and lenders to major domestic securities markets were lowered, and improvements in trading and communication technologies facilitated the management of diversified international portfolios. This reduction in barriers to international financial transactions also occurred at a time when institutional investors became increasingly important in equity markets. Some institutional investors (e.g., insurance companies, pension funds, and mutual funds) attempted to diversify their portfolios by increasing their holdings of equity in different national markets.

During much of the 1980s, this international diversification of investor portfolios took place during an extended global "bull" market. Between the end of 1981 to the end of September 1987, for example, world stock market capitalization grew in real terms <sup>1/</sup> at an estimated annual rate of nearly 17 percent, with equity market capitalization in the United States and Japan, rising at annual real rates of 14 percent and 25 percent respectively (Chart 10). In part, this sustained increase in equity prices reflected the recovery of economic activity from the global recession of 1981-82, as well as substantial reductions in real interest rates from the high levels experienced in the early 1980s. In some industrial countries, a recovery of profitability (often reflecting wage moderation during the cyclical recovery of output since 1983) and improved terms of trade brought about by declines in oil and other commodity prices also helped improve corporate earnings and dividends. Moreover, a general decline in inflation may have increased the attractiveness of holding financial assets. In addition, domestic institutional and tax considerations influenced developments in certain countries by affecting the share of total savings directed toward investment in equity instruments.

The price variability that characterized most international asset and commodity markets during the 1970s and 1980s was also evident in major equity markets (Chart 11). <sup>2/</sup> During this period, the greatest

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<sup>1/</sup> This world index was computed by deflating the Morgan Stanley Global index of stock prices by a composite GNP deflator, which is an average of the individual country deflators weighted by the average U.S. dollar value of its respective GNP over the preceding three years.

<sup>2/</sup> In Chart 11, price variability is measured by the standard deviation of the end of month values of the overall stock index over the preceding 12 months.

variability occurred when equity prices experienced sharp declines in 1973-74 (following the first oil price shock) and in October 1987. Apart from these two periods, there has been no discernible general trend in price volatility between the 1970s and 1980s in most major equity markets, although Germany and Japan appear to have experienced somewhat increased volatility since the late 1970s. <sup>1/</sup> Nonetheless, even before October 1987, price volatility in most major markets during part of 1986 and 1987 was at or above the level experienced during the period from the mid-1970s through the mid-1980s. Moreover, a recent study <sup>2/</sup> has noted that, when equity price variability has increased during the 1980s, there has been a higher correlation between price movements across markets than during the 1970s.

a. Global equity markets in late 1987 and 1988

In most industrial countries, sharp declines in equity prices in October 1987 offset price increases registered earlier in that year (Chart 10). By the end of October 1987, only the Japanese stock index was above its 1986 year-end value. On October 19 and 20, the major stock market indices fell (measured in domestic currencies) by 18 percent in Canada, 13 percent in the Federal Republic of Germany, 11 percent in France, 11 percent in Italy, 18 percent in Japan, 22 percent in the United Kingdom, and 16 percent in the United States. While the sharp declines in equity prices were accompanied by record trading volumes in some markets, other markets experienced sharp reduction in trading as daily price limits were reached or markets closed. While the events of October 1987 have frequently been compared with the collapse of equity prices in October 1929, some observers have suggested that the global nature of the selling pressure was most comparable to the panic selling that was evident on the eve of World War I (in particular, on July 31, 1914).

What was unique about this decline in equity prices was not the scale of the decline, but rather the speed with which it took place. In the United States, for example, the Brady Commission <sup>3/</sup> identified eight declines in equity prices that had occurred since 1945 that were comparable to the decline in October 1987. However, these earlier declines were spread over longer periods, sometimes several years. Chart 1 illustrates that such declines were also evident in other major markets during the 1960s, 1970s, and 1980s.

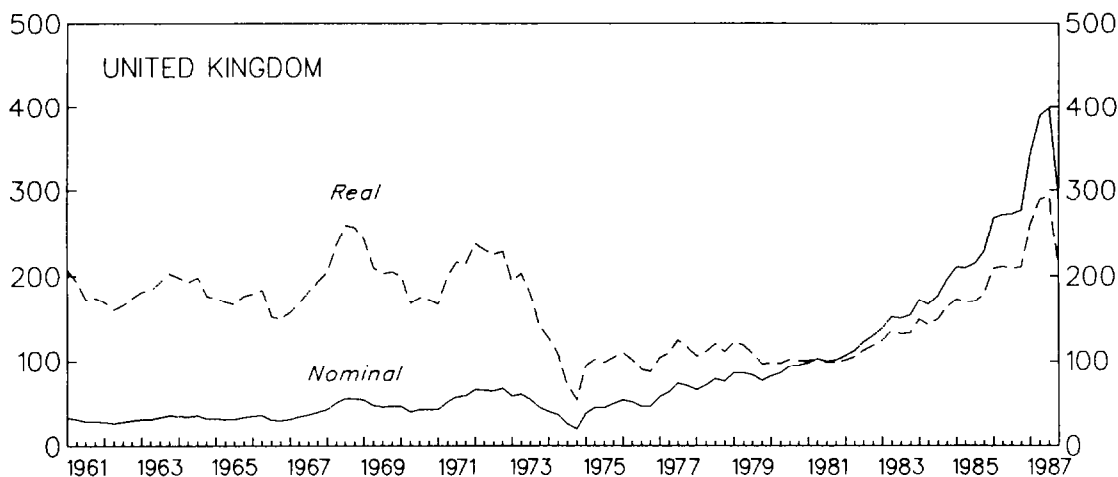
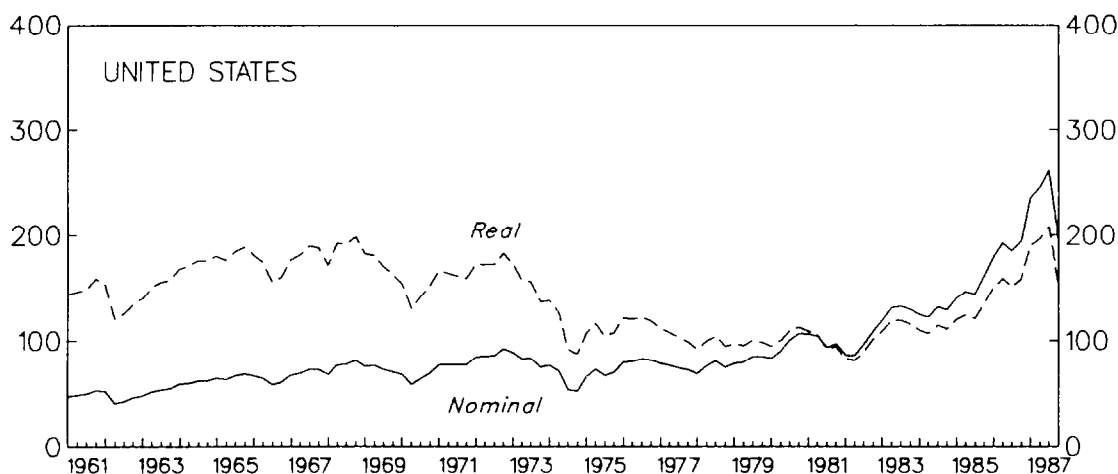
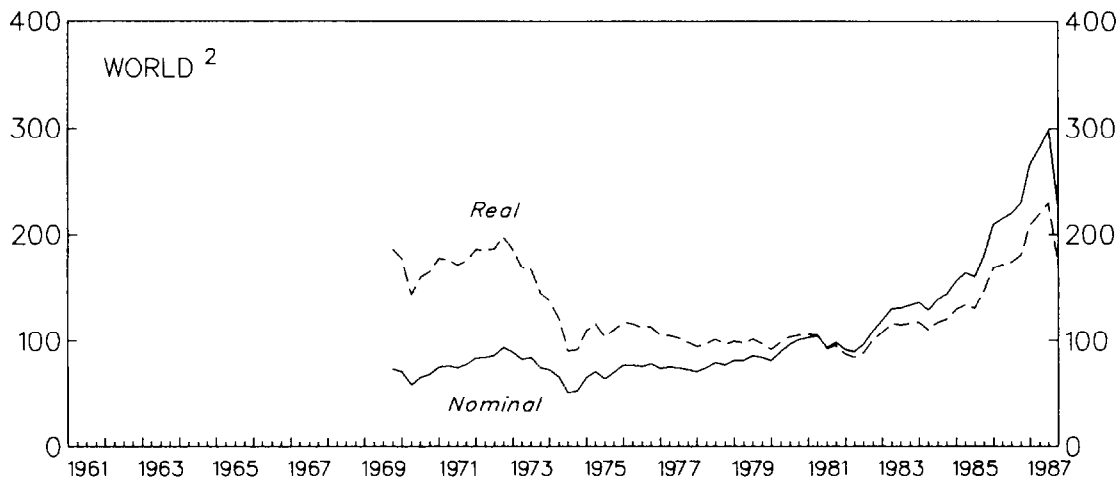
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<sup>1/</sup> Some observers have argued that much of the increase in price volatility has occurred in intraday price movements which would not be captured in the interday price movements in Chart 2.

<sup>2/</sup> See Bennett and Delleher (1988) listed in the bibliography in Appendix I.

<sup>3/</sup> Nicholas F. Brady was the Chairman of the commission that prepared the Report of the Presidential Task Force on Market Mechanisms.

CHART 10  
NOMINAL AND REAL<sup>1</sup> INDICES OF INDUSTRIAL COMPANIES'  
STOCK PRICES, FIRST QUARTER 1961—FOURTH QUARTER 1987  
(End of period)



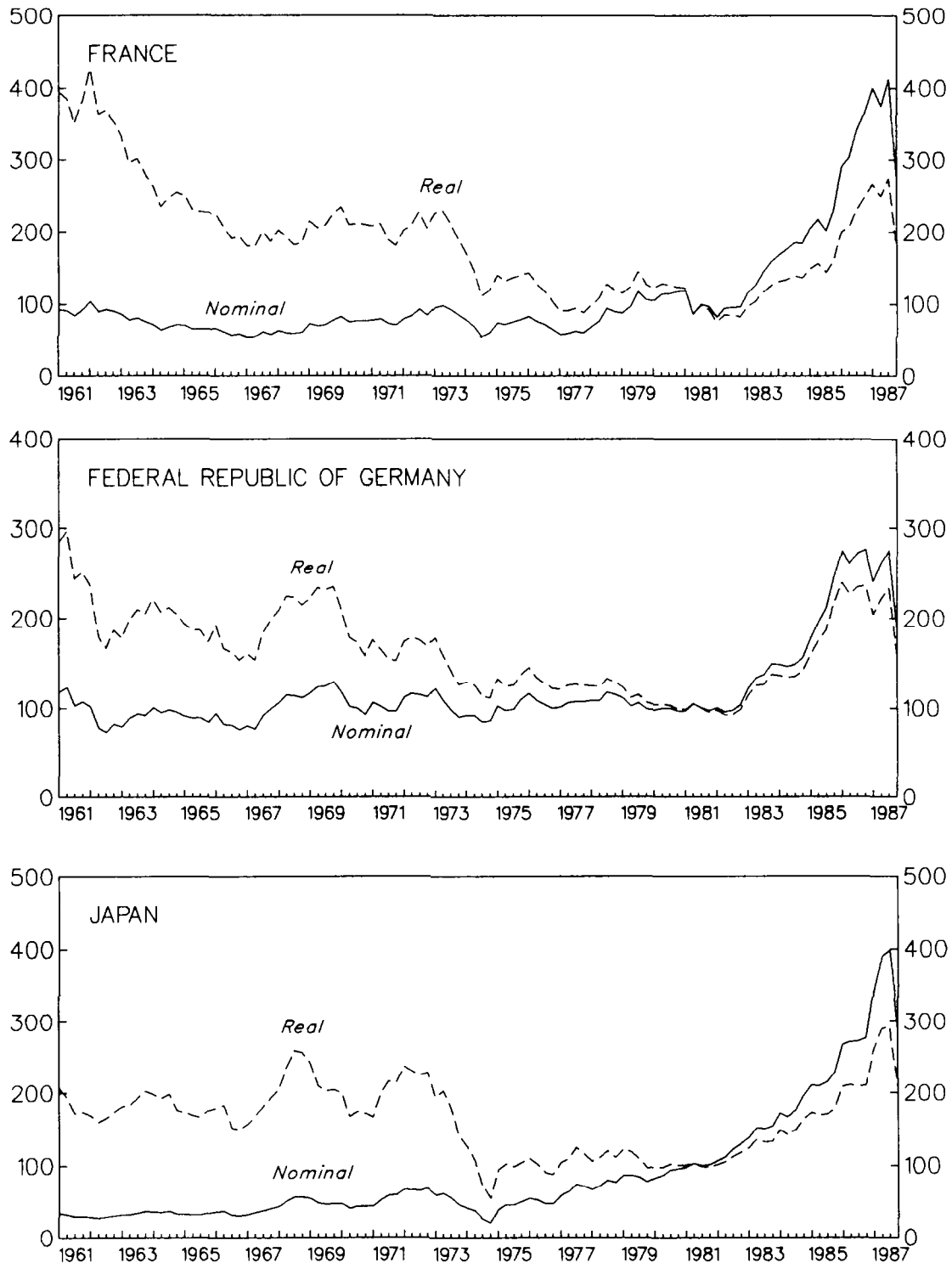
Source: Morgan Stanley Capital International.

<sup>1</sup> Nominal indices have 1981 value equal to 100. The real value of the indices is taken as the nominal value deflated by the individual country GNP deflator. For the world index, the deflator is the average of the individual country deflators weighted by the average value of its respective GNP relative to the group total over the three preceding years.

<sup>2</sup> The world index is that calculated by Morgan Stanley Capital International and reflects the stock indices of 19 countries.



CHART 10(concluded).  
NOMINAL AND REAL<sup>1</sup> INDICES OF INDUSTRIAL COMPANIES'  
STOCK PRICES, FIRST QUARTER 1961—FOURTH QUARTER 1987  
(End of period)



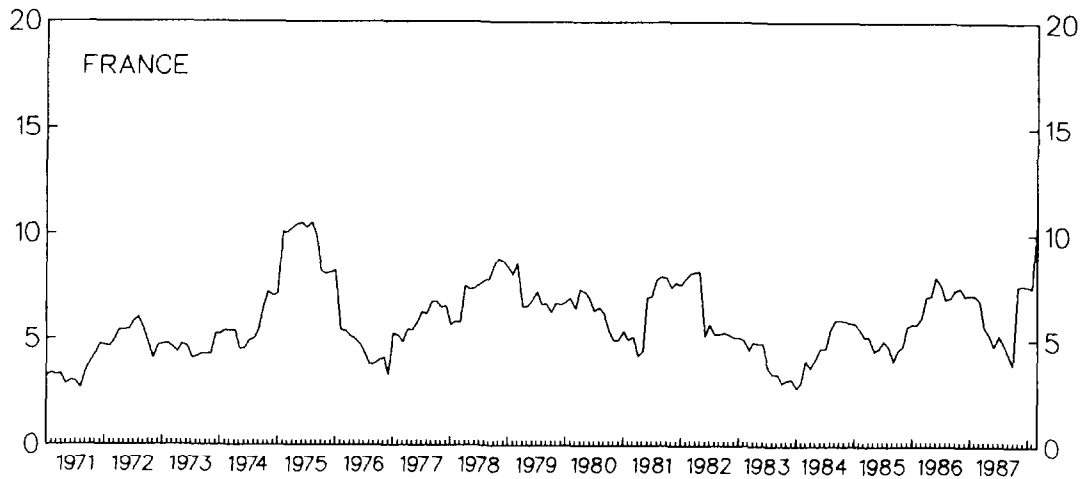
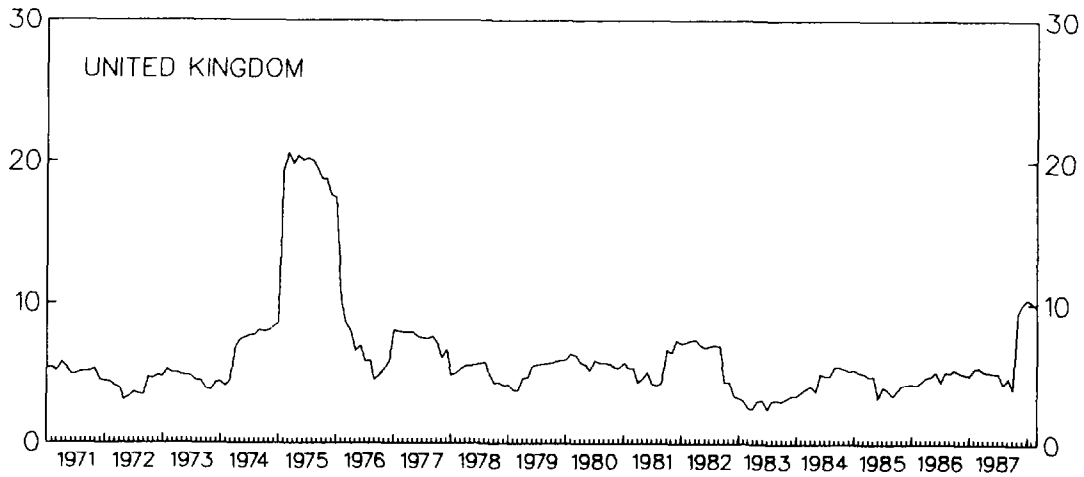
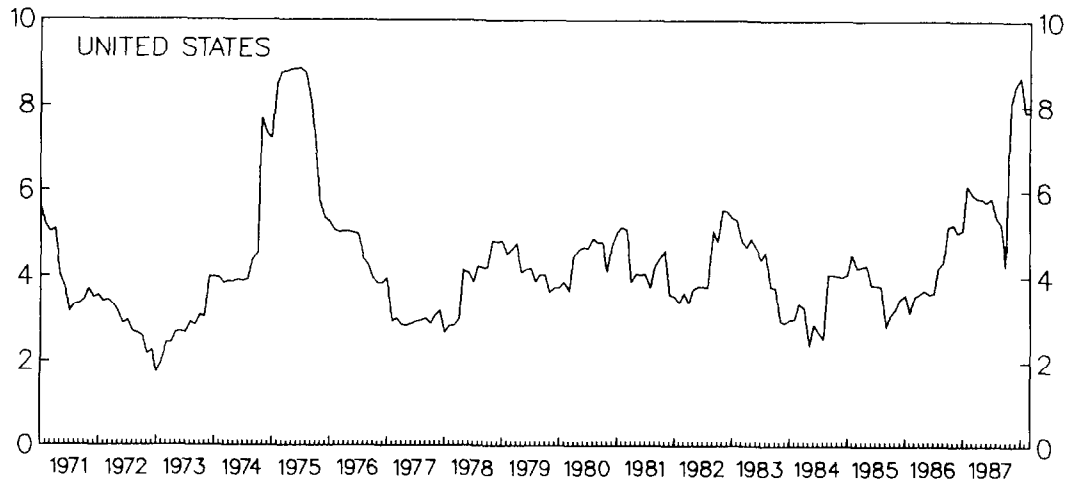
Source: Morgan Stanley Capital International.

<sup>1</sup> Nominal indices have 1981 value equal to 100. The real value of the indices is taken as the nominal value deflated by the individual country GNP deflator. For the world index, the deflator is the average of the individual country deflators weighted by the average value of its respective GNP relative to the group total over the three preceding years.

<sup>2</sup> The world index is that calculated by Morgan Stanley Capital International and reflects the stock indices of 19 countries.



CHART 11  
EQUITY MARKET PRICE VOLATILITY,<sup>1</sup>  
JANUARY 1971-FEBRUARY 1988



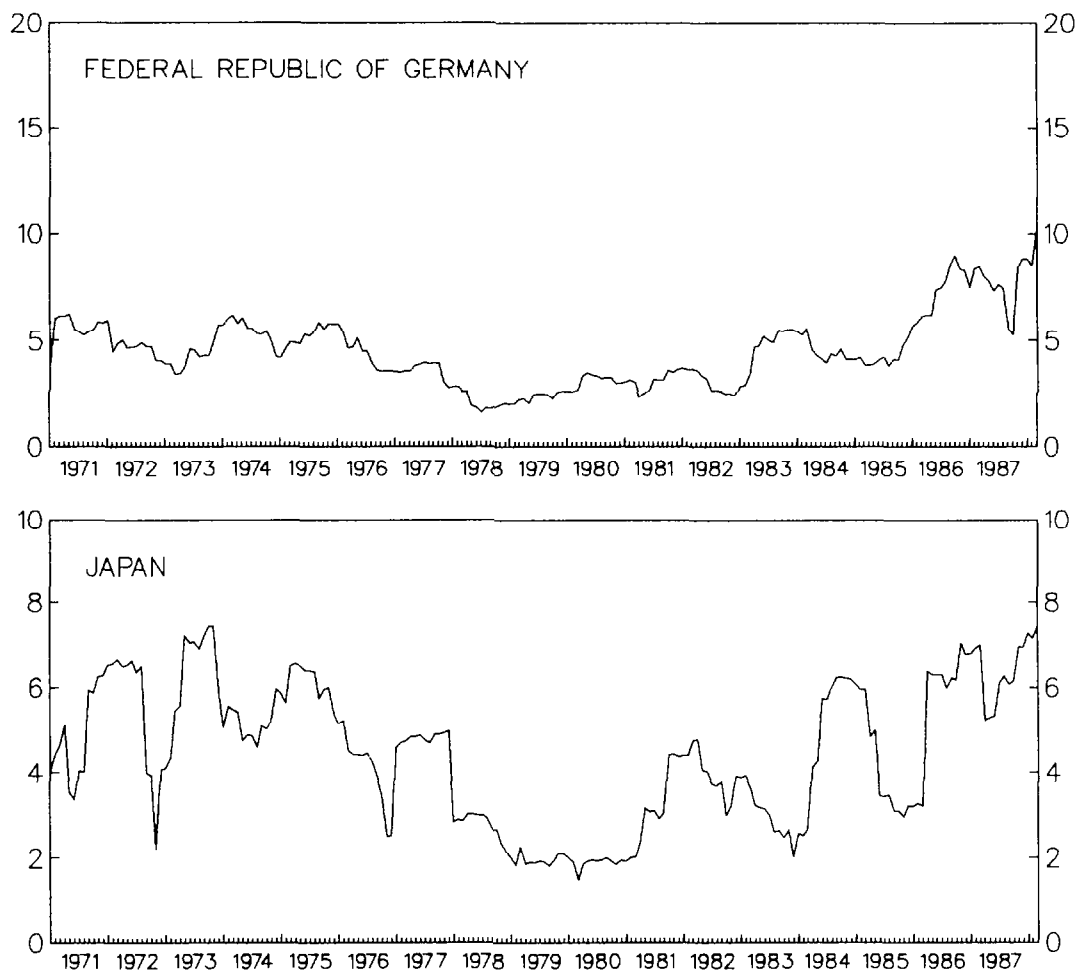
Source: Morgan Stanley Capital International.

<sup>1</sup>Price volatility is measured by the standard deviation of the end-of-month values of the stock index over the preceding 12 months.





CHART 11(concluded).  
EQUITY MARKET PRICE VOLATILITY, <sup>1</sup>  
JANUARY 1971-FEBRUARY 1988



Source: Morgan Stanley Capital International.

<sup>1</sup>Price volatility is measured by the standard deviation of the end-of-month values of the stock index over the preceding 12 months.



Following a limited recovery of stock prices in the week after the collapse, equity prices on most markets remained quite volatile but with no strong upward or downward trend. An exception was the Japanese market where prices recovered to a level above those prevailing in mid-October 1987 by April 1988. Moreover, equity markets continued to appear to be especially sensitive to adverse news. For example, during the Interim Committee meeting in mid-April 1988, the announcement of what was regarded by market participants as adverse "news" on the U.S. trade balance led to a sharp price decline in a number of major markets.

b. Factors influencing the collapse of equity prices in October 1987

Analyses of the events of October 1987 have argued that both macroeconomic factors and the structural characteristics of equity markets influenced the extent and speed of the decline in equity prices. Large and persistent external payments and fiscal imbalances in some of the major industrial countries were generally viewed as incompatible with stable financial and foreign exchange market conditions. In part, this reflected the belief that such imbalances were "unsustainable" in the sense that their financing would absorb a high or increasing share of world savings and would eventually require higher real interest rates. While these imbalances created underlying pressures on financial and foreign exchange markets, short-term developments in equity markets in the months leading up to October 1987 were viewed as most directly affected by interest and exchange rate movements, and perceived policy conflicts between the authorities in some of the major countries. Interest rates, which had been declining in the major industrial countries since mid-1984, began to rise early in 1987, initially with an increasing differential between interest rates in the United States and in the other major industrial countries. Most of the reports attributed this to concerns about exchange market conditions as well as the possibility of higher inflation. <sup>1/</sup>

As interest rates and equity prices rose during 1987, there emerged a widening gap between yields on government bonds and equities (as measured by the inverse of price-earnings ratios). In most markets, these gaps increased by at least 1-2 percentage points in the period prior to October 1987. Observers noted that, while this yield gap could conceivably have been closed by a fall in bond yields (higher bond prices) rather than a rise in equity yields (lower equity prices), macroeconomic developments and policies made a sharp fall in interest rates unlikely.

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<sup>1/</sup> The macroeconomic developments during this period and their relationship with equity price developments has been reviewed in "Implications of Recent Decline in Equity Prices," Supplementary Note 1, World Economic Outlook, April 1988.

While macroeconomic developments were viewed as creating the scope for a decline in equity prices, some observers argued that certain structural characteristics of equity markets amplified and accelerated the price declines and created the possibility of spillover effects onto other asset markets. It was in response to these concerns that a number of official studies were commissioned and a number of equity exchanges reviewed their own experiences. <sup>1/</sup>

## 2. Analyses of the stability of global equity markets

The sharp decline in equity prices in October 1987 led to concerns about (1) the performance of trading systems as measured by the speed and accuracy with which buy and sell orders were transmitted, the extent of price volatility, and the quality of market liquidity; (2) the influence of computer-based trading strategies and the linkages between stock and derivative (stock option and futures) markets; (3) the capacity and efficiency of clearance and settlement systems; (4) the provision of emergency liquidity and other official support during periods of market stress; and (5) the consistency of regulation and supervision for markets both within and across countries.

### a. Trading systems

Equity markets facilitate capital formation by providing liquidity for claims on capital and thereby making such claims more attractive portfolio instruments. In liquid markets, investors can convert equity claims into cash at prices near the most recent transaction prices in the absence of new information. Moreover, options and futures markets for equity instruments can further enhance the attractiveness of equity instruments by allowing savers to hedge against adverse price movements through transferring the risk of price fluctuation to persons willing to speculate on these movements for a profit.

Market-making systems in equity markets are designed to provide liquidity (i.e., the ability to convert equity into cash with relatively little effect on equity prices) by creating mechanisms for dealing with small, temporary order imbalances. To provide such liquidity, a variety of systems have been employed in different countries; but all are essentially variants of three basic market-making structures. A number of systems (including those in Japan and the United States) rely on "specialists" to provide liquidity. On the New York Stock Exchange (NYSE), for example, the specialist assumes an obligation to prevent volatile price movements in the shares in which he has the sole obligation to make a market. Making a market may involve the specialist acting either as a broker (matching buyers to sellers) or trading for his own account. Moreover, he can delay, with exchange approval, the opening of trading in an individual stock whenever an order imbalance

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<sup>1/</sup> The bibliography in Appendix II provides a listing of some of these reports.

emerges that would require significant price movements from the previous day's closing price. 1/ Trading can also be halted during the day if such an imbalance occurs. In Japan, the market makers (the "saitori") function in a similar manner, but they cannot trade on their own account. Trading halts can take place for one of two reasons. If the ratio to buy to sell order reaches certain critical values, then trading in the stock is temporarily halted, while the saitori searches for additional matching offers through gradual adjustment in prices. Alternatively, if the price of a stock rises or falls by a pre-established daily price limit, then trading is halted until the next session.

An alternative market-making structure involves the use of competitive market makers which may be centered on arrangements emphasizing the role of either broker/dealers or auction markets. In broker-dealer systems, a dealer offers investors the ability to sell and buy securities at readily available bid and offer quotations, with dealer inventories serving as a buffer against volatile price movements in the face of temporary order imbalances. While broker/dealer arrangements are often evident in over-the-counter markets, 2/ they have also been employed on the London Stock Exchange where a screen-based trading system provides competitive market makers with the ability to put "firm" quotes into the Stock Exchange Automated Quotation System (SEAQ). On the basis of these quotes, trades ("bargains") are then negotiated and finalized over the telephone. 3/

Under auction or "open outcry" systems, emphasis is given to the role of price adjustment in eliminating order imbalances. While such

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1/ For smaller order imbalances, the specialist may adjust prices gradually by trading from his own account. On the NYSE, liquidity for large ("block") trades is often provided through brokers or dealers who arrange direct transactions between themselves in an "upstairs" market. However, these are subsequently reported to the stock exchange to satisfy regulatory requirements.

2/ The National Association of Securities Dealers in the United States uses a system based on competitive market makers.

3/ Such firm quotes are provided for the most active stocks. In specifying the pricing obligations of market makers, the London exchange differentiates between four types of stocks based on the volume of trading in each stock: (1) for the alpha stocks, which are the most heavily traded shares and constitute roughly two thirds of total market capitalization, market makers must establish firm, continuous two-way quotations, with trades quickly reported and displayed on display terminals; (2) for the beta stocks, which have lower trading volumes than the alpha stocks, market makers must publish firm continuous two-way price quotes but trading information is not immediately disseminated to display terminals; (3) for gamma stock, which have still lower trade volumes, the price quotes are to be regarded as only indicative; (4) and for the least active delta stocks only an approximate middle price is disseminated by SEAQ.

arrangements are typically identified with the futures markets, they are also employed as part of the trading systems in the stock exchanges in the Federal Republic of Germany and Switzerland. 1/

In examining the performance of these market-making systems during October 1987, it is important to note that each system is primarily designed to deal with temporary order imbalances that typically arise between the arrival of normal customer buy and sell orders, and not the massive one-sided sell-off evident on the 19th and 20th of October 1987. As a result, most studies of the October 1987 events concluded that large order imbalances created difficulties for market-making systems that resulted in sharp price movements, extensive trading halts (either for individual stocks or for entire markets), a widening of bid-ask spreads, withdrawal of market makers in some markets, and difficulties in obtaining price quotations. 2/ In some markets, where there were daily limits on price movements, trading activity declined sharply. In Tokyo, for example, a large imbalance between buy and sell orders on October 20 resulted in 80 stocks never opening for trading and trading in about 700 other stocks stopping during the day as their prices declined by the full amount of their price limits. In contrast, a large inflow of buy orders on October 21 resulted in trading halts for over 150 stocks as their prices rose by their price limits. 3/

In the markets that remained open and were not subject to daily price limits, trading volumes reached historically high levels. However, the processing of these record volumes created some difficulties, especially as order transmission systems were called upon to operate at levels far above normal. In London, for example, a total of about 800 million shares were traded on October 19 and 20. As noted earlier, the London markets operate through a screen based trading system with competitive market makers that are required to provide "firm" buying and selling prices, with trades being negotiated and finalized over the telephone. Although they remained open throughout the period of the crash, there were complaints that at times it was impossible to reach market makers by telephone; and, as a result, price quotes that were

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1/ Some systems, such as the Chicago Board Options Exchange (CBOE), employ a combination of broker/dealer and auction arrangements.

2/ Although most exchanges remained open, seven exchanges altered their operating hours to cope with large trading volumes. Exchanges in the Federal Republic of Germany, Sweden, and Switzerland extended their hours; while those in Canada, Italy, South Africa, and the United States shortened their hours. The Hong Kong Stock Exchange remained closed during October 20-25. As will be discussed, the closing of the Hong Kong Stock Exchange was related to the prospect of large scale defaults on margin calls in the futures market for Hong Kong stock index futures contracts.

3/ In addition to the Tokyo Stock Exchange, some form of daily price limits were in effect on equity markets in Austria, France, Italy, Spain, and Switzerland.

displayed on computer screens reflected only a part of total investor supply and demand. Moreover, greater price volatility led to a widening of quoted spreads between buying and selling prices and a reduction in the size of the transactions ("bargains") that market makers were willing to undertake at quoted prices. 1/ In addition, "fast" market procedures were declared for the first time for periods totaling about seven hours during the week of October 19. This suspended the requirement that market makers' price quotations be firm, and it was displayed on computer screens that all price quotes were only indicative. Despite these difficulties, market participants generally viewed the overall operation of the computer-based system as quite satisfactory, especially in view of the unprecedented volume of activity. Furthermore, since many of the market makers were part of financial conglomerates, it was also felt that their broad capital bases enhanced their ability to play a stabilizing role.

In the United States, large inflows of sell orders affected market liquidity on a broad range of equity markets employing both specialist and competitive market makers systems. 2/ While the New York Stock Exchange experienced a record volume, 3/ for example, market liquidity was not available on a continuous basis since the large volume created difficulties for the routing of buy and sell orders and trading execution reports to and from the floor of the exchange. The initial order imbalance on October 19 led to extensive delayed openings for many stocks, with nearly a third of the stocks in the Dow Jones Industrial Average (DJIA) were still not trading one hour after the opening. In addition, there were frequent trading halts for individual stocks during the day. The Designated Order Turnaround (DOT) system encountered difficulties in processing orders as certain computer software programs proved unable to cope adequately with the scale of transactions; and stock exchange authorities took steps to limit the use of this system, especially for those engaged in programmed trading. 4/ On October 19, the capital of some specialists was seriously reduced (by about 50 percent) as a result of large purchases of securities. This decline in specialists' capital resulted in greater reliance on opening delays and trading halts as a means of confronting large order imbalances.

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1/ The stock exchange sales rules specified that market makers had to be willing to buy or sell the minimum of 1,000 shares of quoted prices; but, prior to the market crash, many dealers had quoted bargain sizes of up to 100,000 shares.

2/ The performance of the auction markets for stock index futures and their linkages with the stock markets is discussed in the next section.

3/ Volumes on the October 19 and 20 amounted to about 600 billion shares on each day and were 235 percent greater than the average daily volume for the year.

4/ This will be discussed in the next section.



Similar transactions problems were also encountered in markets employing competitive market makers. For example, the over-the-counter market for equities operated by the National Association of Securities Dealers in the United States utilized a system of competitive market makers linked through computers (the National Association of Securities Dealers Automated Quotations System, or NASDAQ) with trades conducted over the telephone. In this system, small orders were executed through the Small Order Execution System (SOES) at the best bid or ask price, depending on whether the order was to buy or to sell. Participation in the SOES was voluntary for market makers, and they could therefore withdraw from market-making activities, subject to a requirement that they not return for two business days. The wave of sell orders created problems both as some market makers withdrew 1/ and as the system encountered difficulties with locked or crossed price quotes. 2/ Such locked and crossed markets emerged for extended periods, in part because market makers often did not have time to update their quotes, and in part due to the difficulties market makers had in contacting one another to check on quotations. One problem created by this situation was that automatic executions of trades on the SOES ceased, and manual processing was required. As a result, many NASDAQ market makers were unable to execute customer orders in a timely fashion. In addition, there was a widening of bid-ask price spreads. Thus, while the NASDAQ system as a whole was able to process a record volume of transactions, key elements in the system failed to provide efficient pricing or execution.

In Tokyo, market liquidity was affected by large imbalances of sell (on October 20) and buy (on October 21) orders which led to trading halts as prices on individual stocks reached pre-established daily price limits. On October 20, as already noted, about 80 stocks never opened for trading, and some 700 stocks stopped trading during the day. In contrast, on October 21, the surge of buy orders meant that only three stocks were traded during the first half hour of trading. Moreover, trading in about 150 stocks was halted during the course of the day, as prices rose to their upper daily price limits. As a result, share volume on October 20 and 21 was approximately 500 million and 420 million, respectively, which was half the average daily volume for most of the previous months of 1987.

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1/ The Securities and Exchange Commission reported that in the three day period between October 19-21, 1,840 securities (40 percent of all listed securities) were eliminated from the SOES because there was no active SOES market maker prepared to execute transactions through SOES in those securities.

2/ A locked market exists when the bid price quoted by one market maker for a security equals the ask price quoted by another market maker in the same security. A crossed market exists when the bid price quoted by one market maker is greater than the ask price quoted by another market maker in the same security.

In general, there is agreement that most markets handled the unprecedented level of selling orders and resulting trading volumes surprisingly well, but liquidity was often not available on a continuous basis. However, the bottlenecks encountered in the order transmission systems led to recommendations for improvements in trading rules and the technological infrastructure of market systems. 1/

b. Derivative markets and trading strategies

Some reports raised the question of whether linkages between stock markets and the markets for stock index futures and options (the so-called derivative markets) have contributed to price volatility. While these issues have been discussed most extensively in the United States, Hong Kong, and--to a lesser extent--the United Kingdom, the continuing development of futures and options markets in many other countries could soon make those issues of relevance for a broader set of countries.

Futures and options equity markets allow investors to reallocate the risks associated with either price movements in individual stocks or changes in the value of broad market indices. Stock prices are often affected by both systematic risks (e.g., change in macroeconomic activity due to higher interest rates) and specific risks (i.e., specific factors affecting the performance of individual companies). In general, specific risks can be reduced by increasing the number of stocks in an investor's portfolio ("risk diversification"), but the influence of systemic risks cannot be reduced through such diversification. As a result, stock index futures contracts have been developed as one means of allowing investors to fix the future value of a broadly diversified portfolio over a given period even if there are sharp unanticipated movements in all equity prices. In particular, a stock index futures contract is a standard agreement that provides the holder with the right to obtain the value of a given index at a predetermined price at a future time. 2/

While exchange-traded futures contracts have a long history in commodity markets, stock index futures contracts were first traded on the Kansas City Board of Trade in February 1982 when trading on a Value Line Composite Average Index contract was instituted. The Chicago Mercantile Exchange introduced the Standard & Poors 500 (S&P 500) index contract in April 1982, and in May 1982 the New York Futures Exchange

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1/ These are reviewed in Section V, below.

2/ Even the use of an index futures contract does not guarantee a full hedge against adverse price movements, especially if the investor's portfolio does not match the composition of the basket of stocks used to calculate the index. In addition, stock index futures usually have a limited maturity of up to 12 months.

started the New York Stock Exchange Composite Index Contract. <sup>1/</sup> The Hong Kong Futures Exchange also started trading in a Hong Kong Index contract in May 1986. In September 1986, the London International Financial Futures Exchange (LIFFE) introduced a Financial Times Stock Exchange 100 share index (FTSE) contract.

Stock index futures contracts can be taken as useful hedging instruments only if it can be guaranteed that the terms of the contract will be fulfilled, even in the face of highly adverse price movements. As discussed below, such contract performance is typically ensured by making the exchange itself a counterparty to each futures contract, and requiring the buyer or seller of a futures contract to post a margin (performance bond) requirement. Thus, the performance of the contract depends on the resources of the exchange rather than those of any single individual counterparty.

Stock options have been a common feature of the major stock exchanges in North America and Europe for several decades, but floor trading for standardized stock options was first introduced in April 1973 with the creation of the Chicago Board Options Exchange (CBOE). An option confers a right, but not an obligation, to purchase (a "call option") or sell (a "put option") a stated number of shares at a specified price (the "exercise price") within a predetermined time period. In addition to options on individual stocks, options are also available on stock index futures, which provide another vehicle for hedging against general price movements in equity markets. The purchaser of an option pays an up-front premium; whereas the writer (or seller) of an option is required to post and maintain a margin requirement which serves as a performance bond. This asymmetrical treatment of the buyer and seller of an option reflects the fact that the seller is potentially liable for unlimited losses if the market moves against his position. In contrast, the purchaser of an option cannot lose more than the premium paid to purchase the option since he need not exercise his option. <sup>2/</sup>

Prior to October 1987, futures contracts had become the principal instrument by which institutional investors adjusted portfolio risks.

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<sup>1/</sup> The stock index futures differ from their commodity counterparts in that (1) while the asset underlying the commodity future has a cash market, there is no such cash market for the equity index; and (2) index futures is typically not settled by physical delivery: settlement value is the difference between the initial contract price and the actual level of the stock index at the expiration of the contract.

<sup>2/</sup> A detailed discussion of options and futures markets can be found in Supplement 1 to "Managing Financial Risks in Indebted Developing Countries" (SM/88/233, 9/27/88).

As a result of the growing importance of institutional trading, <sup>1/</sup> activity in stock index futures in the United States had risen to a level that was on average one and a half times the daily trading volume on the NYSE. Futures contracts have become an attractive means of adjusting diversified stock portfolios because they involve transactions costs that are only 5 percent to 10 percent of those associated with the actual trading of the securities underlying the index. The growing importance of stock index futures has been reflected in two trading strategies: stock index arbitrage and portfolio insurance.

Stock index arbitrage involve profiting from price disparities between the value of the stock index future (or stock index option) and the value of the basket of stocks underlying the index. <sup>2/</sup> When the futures price is at a discount relative to the value of the stock index, an index arbitrageur attempts to profit by selling the basket of stocks underlying the index and buying a stock index futures contract. When the futures contract is at a premium, the arbitrageur may create a "synthetic cash" transaction by buying the portfolio of stocks underlying the stock index and selling the stock index futures.

Portfolio insurance (or dynamic hedging) is designed to allow institutional investors to participate in a rising market while still protecting the value of their portfolio if market prices decline. Using computer-based models of stock options analyses, portfolio insurance seeks to maintain an optimal ratio of equities-to-debt securities (or

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<sup>1/</sup> In recent years, for example, block trades of 10,000 or more shares have accounted for about 50 percent of NYSE volume.

<sup>2/</sup> The relationship between the value of the stock index and the stock index futures can be illustrated by assuming that the investor could either invest in a three-month index futures contract or buy the basket of stocks underlying the index. If the investor buys the stocks, the value of his portfolio after three months would equal the value of the stocks at that time plus any dividends. If the investor instead purchased a futures contract, he would initially have to put up a margin requirement of 5 percent to 10 percent of the value of the contract, and could invest the rest of the amount in Treasury bills, for example. In this situation, the investors' portfolio at the end of three months would equal the value of the index and the return obtained on the Treasury bills. If arbitrage results in the yields of two alternative investment strategies being equalized, then a "fair price" ( $F^*$ ) for a futures contract on the stock index would equal  $(1+r_T-d_T)S_0$ ; where  $S_0$  = the current value of the stock index,  $r_T$  = the Treasury bill rate for the period from the present to the expiration of the futures contract, and  $d_T$  = the dividend rate expected on the stocks underlying the stock index from the present to the expiration of the futures contract. However, futures only rarely trade at this value because it abstracts from transactions costs, unequal borrowing and lending rates, and the effects of differential taxation on market participants (e.g., on individual and pension funds).

cash) at various stock market price levels. As market prices change, however, portfolio insurers adjust the stock-to-debt ratio by trading index futures. In particular, the strategy involves the gradual sale of stock (or stock index futures) in a declining market and the purchase of stock (or stock index futures) in a rising market. Trading of stock index futures is often used because of their relative low transactions costs.

One concern that was expressed in some reports of developments in U.S. equity markets in October 1987 was that these trading strategies contributed to the fall in equity prices, either directly, by generating sales into a declining market, or indirectly, by creating a negative market psychology. In particular, some argued that a "cascade" scenario could arise. In this situation, stock prices could fall for some exogenous reason, and, as a result, participants would sell stock index futures in order to lock in a given level of stock prices. However, sales of futures contracts would tend to drive futures prices down relative to the prices of the stocks in the index, and arbitrageurs would buy futures and sell stocks. This would lead stock prices to fall further.

It has also been suggested that such sales during a period of financial disturbances can result in a large discount opening up between the price of the stock index future and the value of the stock index. Since such a discount could lead to the expectation of future declines in equity prices, some observers have argued that this could create a negative psychological effect on the market. However, in the United States, the gap that opened between futures and cash prices for equity reflected developments in the cash market as much as in the futures markets. In particular, trading in a number of the stocks included in the S&P 500 had not opened as late as 11:00 a.m. on October 19. For these stocks, the closing prices on the previous Friday were used when the value of the S&P 500 index was calculated. As a result, during this period of sharply declining prices, the value of the index was overstated.

Others have argued, moreover, that there is little evidence to support the view that trading strategies and derivative markets played a significant role in either causing or amplifying the decline in market prices. <sup>1/</sup> In particular, even on October 19 when portfolio insurance sales of futures were at their largest, they represented only 20 percent of market volume on the Chicago Mercantile Exchange. Moreover, the

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<sup>1/</sup> For further reference on the role played by the presence or absence of derivative markets, see Richard Roll, "The International Crash of October 1987," in Kamphuis, Kormendi and Watson (eds.), *Black Monday and the Future of Financial Markets*, 1988.

decline in equity prices was viewed as representing a general sell-off of equities rather than activity in any single market segment. 1/

In London, the use of stock index arbitrage and portfolio insurance was not as extensive as in the United States. 2/ Limited index arbitrage and the difficulties that investors encountered in accessing market makers also resulted in the price of FTSE futures contract trading at a discount relative to the stock index of roughly 5 percent during the week of October 19. Index arbitrage in the United Kingdom was reportedly inhibited by such factors as stamp duties, a lack of automatic execution facilities for stock trades, and the lack of credit for index futures positions in the ISE's capital adequacy requirements. 3/

More serious problems with derivative markets occurred in Hong Kong. When the Hong Kong stock index dropped 420 points (11.3 percent) on October 19, investors with long (i.e., had purchased) futures contract positions faced losses of up to HK\$ 60,000 on contracts many had purchased on margin of HK\$ 15,000. The prospect of large scale defaults in the futures market, with possible spillover effects to the broker dealers, 4/ led to the closure of both the stock and futures exchanges. Over the weekend of October 23, the Hong Kong authorities devised a rescue plan involving a loan of HK\$ 2 billion to the Hong Kong Futures Guarantee Corporation, which guaranteed performance of all futures contracts. Half of the loan was from the government and the rest was provided by a group of 12 brokers and the shareholders of the Guarantee Corporations, mainly banks.

When the stock market reopened on Monday, October 26, the Hong Kong stock index plunged 1,120 points (33 percent). Since the emergency loan had been designed to cover defaults on futures contracts caused by a 1,000 point drop in the Hong Kong index, much of the initial cushion of funds was exhausted on that day. On Wednesday, October 28, an

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1/ Portfolio insurance was also viewed by many as working well during a normal period but quite inadequately during a period like October 1987, when it was difficult to trade continuously.

2/ Between January and September 1987, an average of 1,600 futures contracts per day for the Financial Time Stock Exchange (FTSE) were traded, while in 1986 there was an average of daily volumes of 77,000 futures contracts for the S&P 500 in the United States.

3/ In the options market, at the beginning of the week of October 19, a significant number of investors were also short of FTSE puts (i.e., they had an obligation to deliver cash should the FTSE index fall below a predetermined level, with the cash amount being determined by the difference between the actual index and the strike price of the index option contract) as storms effectively closed the markets on October 16. As a result, those investors suffered substantial losses as stock prices fell since they had no opportunity to close out their positions. On Monday and Tuesday, these investors reportedly sought to close out their positions at almost any price.

4/ It was also reported that a significant number of futures contracts were held directly and indirectly by only a few investors.

additional emergency loan of HK\$ 2 billion was arranged. 1/ During the period, margin requirements were used from HK\$ 15,000 to HK\$ 50,000 per contract (28 percent of the contract value). Moreover, between 30 and 40 of the 100 futures exchange member firms in business in October 1987 were subsequently liquidated. As indicated in the official report 2/ on these events, these problems were associated with a number of shortcomings in market arrangements including a settlement system that failed to perform properly, a general absence of direction at the supervisory agencies, insufficient staff, and the lack of an adequate risk management system.

c. Clearing and settlement systems

Perhaps the most important obstacles to further integration of securities markets have been the differences in operating procedures in the national clearing and settlement systems and the absence of widespread linkages between a national and international clearance and settlement systems. 3/ As a result, most international securities transactions are still settled outside national systems via telex and physical delivery of certificates. The events of October 1987 highlighted the difficulties that can be created by cross-country differences in clearance and settlement procedures and time periods, data processing capacity, and the ability of foreign institutions to participate in national systems.

The performance of clearing and settlements systems for individual national equity markets during October 1987 was naturally influenced by the volume of trading which took place in the respective markets. As noted earlier, one market was closed (i.e., in Hong Kong) and trading in others was suspended when daily price limits were reached (e.g., Japan). Clearing and settlement systems in these countries were therefore not subject to the same pressures as in markets which remained open and experienced record volumes. In the United States, limitations on trading hours and extended working hours were needed to help clear the backlog of transactions on stock exchanges. Although activity on the futures and options markets declined during the crash, 4/ some problems arose as a result of ambiguities regarding the financial obligations of parties in the clearing and settlement system and the large cash flow required to meet margin requirements. As will be discussed in the next section, the sharp decline in the prices of stock

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1/ It was not ultimately drawn upon.

2/ See The Operation and Regulation of the Hong Kong Securities Industry, Report of the Securities Review Committee, Hong Kong, May 1988.

3/ The settlement process encompasses all of the activities involved in agreement on trades, calculating the securities and cash due, settling money against securities, transferring legal ownership and entering those changes into the records.

4/ On October 19, volume on the New York Stock Exchange was 608 million shares (three times the daily average of the previous week) whereas there were 19,685 stocks index futures contracts were traded (two thirds of the average daily volume of the previous week).

index futures and options contracts led to large intra-day margin calls, that had to be met in a short period if the holder of the contract was not to have his long position sold out. At times, the Chicago Mercantile Exchange Clearing House experienced delays in obtaining confirmations from its settlement banks for the payment of margin calls for certain large firms with large obligations.

In the United Kingdom, the settlement system is based on a two-week (ten business days) account period with settlement on the "account day," which is six business days after the end of the account period. Stocks trades that occurred on October 19 had to be settled by November 2. <sup>1/</sup> As the settlement period encompassing the crash progressed, there were persistent rumors (subsequently unfounded) about financial difficulties for some equity market makers and defaults by private investors. Moreover, a backlog of unsettled trades made prior to the crash period further contributed to concerns about counterparty risk.

In contrast, observers have argued that some of the selling pressures experienced on the equities markets in Germany were associated with the fact that foreign investors could convert their German equity into cash within two business days, a relatively short settlement period by international standards.

While much of the discussion of clearance and settlement systems has focused on the performance of individual national systems, one of the key limitations to further integration of international securities markets has been the difficulties involved in settling and clearing transactions between countries. Although all major equity markets have been streamlining their settlement systems, they have often adopted quite different systems regarding delivery procedures, settlement periods, regulatory requirements, taxation, and periods of operation. Any significant integration of clearing system therefore is likely to involve eventually a common settlement period (e.g., three or five days), an automated trade-confirmation system for international equity trades, and a more efficient system for clearing funds across borders.

d. Measures to limit risk created by price volatility

Extreme price volatility can threaten the solvency of securities markets and accompanying clearing and settlement systems by creating the possibility that market participants may simultaneously default on their financial obligations. As a result, the capacity of institutions and market systems to absorb large price changes has been enhanced by maintaining appropriate capital adequacy requirements for market makers, establishing margins to create performance bonds (e.g., in futures markets), limiting speculation on credit, setting limits on daily price changes and short or long positions in equities or futures, and providing emergency liquidity assistance. How well existing safeguards worked in October 1987 has been the subject of considerable debate.

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<sup>1/</sup> In contrast, the settlement periods are five days in New York, three days in Tokyo, and two days in Frankfurt.



(1) Capital adequacy

Capital requirements for market makers are typically designed to ensure adequate minimum resources for market making under "normal" conditions. As noted earlier, these capital positions are not in general designed to deal with declines in equity prices as large as those experienced in October 1987. In New York, for example, purchases of equities by market makers on October 19 resulted in losses of up to half of their total buying power and, by the end of the day, 13 New York Stock Exchange specialists had no buying power. In London, as already noted, the capital positions of market makers were strengthened by the fact that they tended to be part of financial conglomerates. In other markets, where market makers were not required to quote firm prices but instead operate on a best efforts basis, capital positions were not as severely tested. The most serious test of institutional capital positions occurred, however, in Hong Kong where defaults by retail customers on margin obligations created the prospect of bankruptcies for brokers and the futures exchange. In general, these experiences led to a re-evaluation of the level of capital adequacy that is appropriate in a period where asset price variability could be greater than in the past.

(2) Margin requirements and position limits

Other traditional means of limiting risks created by large price movements have been margin requirements and position limits. Margin requirements have different functions in stock and derivatives (i.e., futures and options) markets. In stock markets, margin requirements are down payments that must be made to purchase equity and represent limitations on the use of credit to fund equity positions. In contrast, margins in futures markets represent a performance bond that does not involve an extension of credit. This margin requirement is designed to cover the losses that could arise from daily price movements that would be likely to occur under most circumstances. When adverse (favorable) price movements occur, the futures contract is "marked to market" (evaluated at the last market price) and any loss (gain) that is experienced by the customers is subtracted (added) to his margin account. Once the balance in this account falls below some pre-established level, the holder of the contract must deposit funds to re-establish his initial margin balance. While margin calls generally occur once or twice a day, default risks are often reduced by increasing the frequency of such calls during periods of increased price volatility.

Since margins on futures contracts are lower than for stock purchases, 1/ there have been suggestions that greater consistency between margin requirements requires higher margin requirements for futures contracts. Some have argued that such higher margins could curb excess speculation in the futures markets and thereby tend to dampen excessive price movements. Others have noted, however, that higher margins would raise the cost of hedging operations and thereby might actually induce greater price volatility in equity markets. Moreover, this latter group has argued that available empirical evidence does not support the view that current futures margins encourage excessive speculation. 2/ In part, this reflects the fact that some major institutions using portfolio insurance and other trading strategies do not acquire stocks on credit.

Since prudential margins are designed to protect against default on financial obligations caused by adverse price changes, the adequacy of margin requirements is related in part to the length of the time period during which the exchange or broker is exposed to default risk on a customer's open position--the period between the margin call and the customer's response. When daily margin calls are used and most investors are institutional entities, as in the futures markets, relatively low margins may suffice to protect against the risks created by day-to-day price movements. However, in the cash market, settlements may take up to five days or longer in some markets and individual traders play an important role. As a result, margins must reflect likely price movements over at least a three to five-day period. Harmonization of margins across cash and futures markets therefore does not necessarily imply equal margins across these markets. Moreover, empirical studies suggest that existing margins in major equity markets cover a broad range of likely price movements in both stock and derivative markets.

Position limits are used to restrict the ability of any single trader to take a large speculative position since this would expose the exchange or broker to excessive credit risks. While position limits appear to have been rigorously enforced (or tightened) in most markets during October 1987, the events in the Hong Kong stock index futures market illustrate the danger created by violation of position limits. Since a small number of clients directly or indirectly accounted for about half of the purchases of the market, their failure to meet margin calls forced the futures and stock exchanges to close in order to allow time for a financial rescue package to be put in place.

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1/ In the United States in early October 1987, these were about 10 percent for futures and 50 percent for stocks.

2/ However, a recent study by Hardouvelis (1988) has concluded that higher margins in the stock market have been associated with a reduction in stock price volatility.

### (3) Price limits

As noted earlier, price limits have also been used to prevent large price declines (or sharp price increases) from occurring. <sup>1/</sup> The events of October 1987 illustrate the spillover effects that can arise when such limits are not uniform across countries. For example, on October 19 and 20, the Chicago Board of Trade operated with daily price limits on its long-term U.S. Treasury bond futures contract. On October 20, 1987, the price of the U.S. Treasury bond futures contract reached its upper limit and trading ceased. Since a comparable bond futures contract was being traded on the London International Financial Futures Exchange (LIFFE), traders switched their activity to that market and its volume rose to nearly eight times the average daily volume experienced during the first half of 1987.

Since there is an ongoing expansion in markets for stock options and stock index futures, the relationship between price limits in cash and derivative markets both within national markets and across countries is likely to become an increasingly important regulatory issue. This will be especially true when stocks are listed on more than one market and similar stock index futures contracts are traded on different national markets. In Europe, for example, such cross-listing of securities is likely to be much more common after 1992 if current proposals for eliminating capital controls and restrictions on many financial activities are implemented.

### (4) Emergency liquidity assistance and contingency planning

In the various reports on the equity market events of October 1987, it is generally agreed that the central banks of some major industrial countries played a key role in preventing the emergence of serious liquidity problems. One initial concern of many market participants was that the equity market crash would be accompanied by a reduction in liquidity such as occurred in the United States during the early 1930s. While such a reduction in liquidity did not take place, it is difficult to evaluate fully the central banks' role in preventing such a liquidity crisis on the basis of limited public information about their actions. This lack of information reflects the "moral hazard" concerns that emergency liquidity assistance might be interpreted as establishing implicit guarantees for certain institutions or for an industry, which in turn might encourage less than prudent behavior by the managers or owners of these institutions. Despite these concerns, there has been some indication in the various reports of the steps undertaken.

In the United States, for example, it was reported <sup>2/</sup> that the Federal Reserve provided liquidity to the banking system through open

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<sup>1/</sup> The arguments concerning the use of such limits will be reviewed in Section 3.

<sup>2/</sup> See United States General Accounting Office, (1988).

market operations; contacted major banks regarding the importance of meeting legitimate but large customer funding needs while still recognizing the responsibility of market participants to make their own credit judgments; suspended rules governing the lending of securities to accommodate securities dealers at the Federal Reserve Bank of New York; and extended the operating hours of the Fedwire and Securities Wire electronics transfer systems for large dollar payments. In Hong Kong, as already noted, the authorities found it necessary to put in place an emergency assistance program for the futures exchange. Moreover, in Japan, the authorities altered the margin system by reducing the margin ratio and increasing the valuation ratio for assets pledged to satisfy margin requirements.

A number of reports stressed the importance of contingency planning by central bank and other regulators for limiting the scope of financial market disturbances. While it has been recognized that a particular crisis is unlikely to be repeated, these discussions have emphasized the importance of establishing procedures for a coordinated response to market disturbances, understanding potential weak points in institutional arrangements, and considering the types of shocks most likely to affect domestic and international financial markets. Although these contingency plans need not be made public, it was argued that some arrangements are necessary in order to avoid the potential mistakes that could arise during a crisis.

#### (5) Coordination of supervisory and regulatory policies

The simultaneous declines in equity prices on all of the major equity markets in October 1987 suggested a degree of market integration, at least in response to major shocks, that had not been previously recognized. Since many large institutional investors now operate across a broad range of major equity markets, supervisory and regulatory authorities in these countries have expanded their discussions of how to better integrate trading, clearance and settlement systems, achieve adequate financial oversight, and establish effective enforcement and surveillance arrangements.

One theme that has emerged in discussions of the equity market crash has been the need to coordinate supervisory and regulatory policies both between the stock and derivative equity markets. While the issues concerning these prudential supervision policies have been most widely explored in the United States, they are also being examined in countries where futures and options on equity instruments are still at an earlier stage of development (the United Kingdom and France) or where financial futures markets are being expanded (Japan) or where they are being set up (Federal Republic of Germany). The need to coordinate supervisory policies in this area has arisen out of the recognition that, from an economic point of view, the stock and derivative markets effectively constitute a single market for equities. In particular, as the Brady Report stressed, regulatory and institutional structures

designed for separate markets were incapable of effectively responding to "intermarket" pressures.

Although the concept of a single market has been readily accepted, there has been less agreement about how to make regulatory and supervisory policies consistent. In part, this has reflected differences between the views of market participants, self-regulatory organizations, and the authorities on the appropriate policy changes. In addition, achieving a consistent set of regulations and supervising practices for stock and derivative markets is often a more direct process when a single regulatory authority oversees both types of markets. In Japan, for example, supervision of both types of markets falls under the jurisdiction of the Ministry of Finance; and, in the United Kingdom, the Securities and Investment Board oversees the self-regulatory organizations for both the stock and derivative markets. In the United States, where a broad range of supervisory authorities monitor developments in these markets, 1/ the Working Group on Financial Markets 2/ was established to review regulatory and supervisory recommendations that were made in the wake of October 1987 and to coordinate their implementation.

The global dimension of the decline in equity prices and the recognition that large institutional investors and financial entities increasingly operate across all major securities markets also raised the issue of how the supervision should be coordinated across countries. As will be discussed in the next section, this coordination is likely to become increasingly important as the integration of these markets either opens up the opportunities for "regulatory arbitrage" (i.e., undertaking activities in one market to escape restrictions imposed in other markets) or creates sudden shifts of activity as one market closes (e.g., due to the presence of daily price limit movements) and others remain open. One issue is what forum can be used to discuss issues related to the coordination of supervisory efforts. Nonetheless, while improved coordination of prudential policies across countries has broad support among market participants, some observers have expressed the concern that excess regulation of securities trading and harmonization of legal requirements could weaken the efficiency and flexibility of institutions and stock exchanges without achieving better investor protection.

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1/ While the Federal Reserve has oversight over margin requirements, the Securities and Exchange Commission supervises developments in the stock market, and the Commodity Futures Trading Commission oversees markets for stock index futures.

2/ This group is composed of the Secretary for Finance of the Department of the Treasury (who has temporarily designated the Under-Secretary as his representative), the Chairman of the Commodity Futures Trading Commission, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Securities and Exchange Commission.

### 3. Policy recommendations of national reports

The principal recommendations concerning regulatory and supervisory policies and structural changes in equity markets that have arisen in the various reports on the events of October 1987 are summarized in Table 44. While there is a consensus that certain improvements are needed (e.g., that the capacity of trading and clearance and settlement systems should be expanded), there is much less agreement in such areas as margin requirements for stocks, stock options, and stock index futures and the use of circuit breakers.

#### a. Structure of equity markets and trading system

The recommendations regarding the structure of equity markets generally reflect the view that (1) there will be expanding use of computers and new telecommunications technology and a growing role for institutional traders; (2) the institutional, regulatory, and supervisory structures where markets for stock options and stock index futures should reflect the close linkages between these markets; (3) the linkages across major equity markets are likely to grow; and (4) that the market structures must be adjusted to reflect higher volatility of interest rates, exchange rates and equity prices than in the past.

While the events of October 1987 have led some authorities to focus on strengthening existing institutional arrangements, others have recommended more sweeping changes in market structures. <sup>1/</sup> Existing institutional arrangements would be strengthened by improving the performance of order execution systems through increased use of automated processing systems, greater computer capacity, utilizing better computer software, and installing more telecommunications capacity. Moreover, in those systems without daily price limits or with very wide limits, it was argued that the capital of market-makers should be strengthened. In the United States, for example, the SEC approved a NYSE proposal that a

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<sup>1/</sup> The securities markets in the United Kingdom and France had been undergoing extensive deregulation even prior to the stock market crash. In the United Kingdom, the Financial Services Act was enacted (the Big Bang) on October 27, 1986 and the stock exchange and the gilt-edged market were reorganized. Self-regulatory organizations were established to oversee prudential aspects and ensure investor protection. In addition, the SEAQ trading system was introduced on the stock exchange. Beginning in March 1987, the French authorities undertook measures aimed at satisfying the scheduled liberalization of capital movements within the EEC. This included: (1) abolition (in March 1987) of the requirement for firms based in the EEC to seek approval of the French government to be listed on the stock exchange; (2) a stock exchange reform bill which plans to eliminate the monopoly of stockbrokers on shares dealing by 1992 and allows French and foreign banks to buy positions in stockbroker houses from January 1988; and (3) the proposed creation (in June 1987) of a stock exchange council in charge of market regulation and surveillance and a specialized financial agency for administering the exchange's common services.

specialist's minimum capital be increased from \$100,000 to \$1 million. In addition, penalties for unexcused withdrawals from market making activities in some markets have been increased by making the period during which they cannot return as market makers longer. The difficulties encountered in the Hong Kong markets led to recommendations calling for more fundamental changes in the representation of brokers, individuals, and institutions in the governing of the futures and stock exchanges, a new clearing and guarantee system for better risk management, and a significant strengthening of supervisory efforts.

In contrast to these areas of general agreement, there were major differences in policy recommendations concerning restrictions on the use of various computer-based trading strategies. These differences reflected contrasting evaluations of the role of such strategies in initiating or amplifying the decline in equity prices. In the United Kingdom, for example, the concern was to develop techniques to encourage stock index arbitrage to prevent a situation, such as occurred during the week of October 19, when stock index futures traded at a larger than normal discount relative to the value implied by underlying stock prices. It was suggested that stock index arbitrage could be facilitated by such changes as improvements in the cash settlement system, instituting automatic execution facilities for stocks, and allowing capital adequacy requirements to reflect the hedges created by the use of index futures.

In the United States, by contrast, a number of proposals were made to restrict the scope for portfolio insurance and index arbitrage. The NYSE, for example, limited the use of its automated orders system for the execution of computer-based trading strategies whenever the Dow Jones Industrial Average moved up by more than 50 points. <sup>1/</sup> As will be discussed, other proposals for reducing the scope of these activities involved raising margin requirements on stock index futures contracts and requiring that settlement of such futures contracts should involve the actual delivery of the underlying portfolio of stocks instead of cash settlement. Nonetheless, the Working Group on Financial Markets indicated that index arbitrage serves a useful function in helping to eliminate price differentials between the stock and derivative markets which could otherwise contribute to price instability and that the use of portfolio insurance had been reduced as a result of the demonstrated inability to adjust equity positions continuously during a crisis period. Thus, although the scale of programmed trading activities has been somewhat reduced in the period since October 1987, this has in general reflected economic decisions of market participants rather than promulgation of new official regulations.

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<sup>1/</sup> It has been reported that one response to this restriction has been increased use of the London markets by some portfolio insurers where the trades are executed on an over-the-counter basis.

b. Clearance and settlement systems

Most reports called for various improvements in the efficiency of clearance and settlement systems in order to reduce systemic risks created by the possibility of counterparty failure during settlement periods. In Germany, for example, where the clearance and settlement system (which is based on a two-day settlement period) was reported to have functioned smoothly, the Federation of German Stock Exchanges proposed that the exchanges should still seek additional improvements in the settlement system in order to increase the competitiveness of German markets. In the United Kingdom, there have been discussions of whether modifications should be made in the current system in which equities are typically dealt "for the account" which is normally a period of ten business days, with settlement on the "Account Day," six business days after the end of the account period. In particular, concerns have been expressed that there could be considerable uncertainty about counterparty default in the settlement period if large price movements occur at the beginning of an account period.

In the United States, it was recommended that efforts be made to unify clearing systems for stock and derivative markets in order to reduce cash flows and financial risks. However, it has been pointed out that significant legal problems, especially relating to liability in the case of default, would have to be solved. Nonetheless steps are being taken to clarify the financial obligations of participants in the clearing system. In France, the Dugen Report recommended that the clearing system should be improved through a mutual exchange of information between clearing houses, increased capital requirements at clearing houses and the introduction of insurance policy requirements for such institutions.

c. Circuit breakers, margin requirements,  
and emergency liquidity assistance

In addition to strengthening the equity markets' ability to handle larger trading volumes and to provide better market liquidity, there has also been consideration of strengthening measures designed to limit the financial risks created by large price movements. While improving the capital adequacy of market makers has been an element in this effort, it has also encompassed proposals for the use of so-called circuit breakers, adjustments in margin requirements, and the provision of emergency liquidity assistance. In contrast to the general consensus about the need to strengthen the capital adequacy of market-makers, however, there have been widely divergent views on the use of those other measures. In part, this reflects disagreements about whether the events of October 1987 were "once-in-a-generation" or are evidence of a more fundamental shift in price volatility in asset markets in general and equity markets in particular. As discussed, there has also been disagreement about whether existing institutional arrangements and trading strategies tend to amplify the effects of a domestic or external shocks on equity markets. Those who believe that the equity price



declines of October 1987 could occur again during periods of pressure on international asset markets (e.g., due to inconsistent policies among the major industrial countries) and that existing trading systems and market linkages amplify price fluctuations, have naturally argued for the most significant changes in the level of margins in stock and derivative markets, the use of "circuit breakers" (i.e., trading halts and/or daily price limits), restrictions on the use of computer-assisted trading strategies, the provision of emergency liquidity assistance, and the role of contingency planning.

As already discussed, margin requirements limit counterparty risk by establishing a performance bond (e.g., in the case of stock index futures) as a down payment (e.g., when acquiring stock). Although margin requirements on stock index futures contracts were raised from about 5 percent to 10 percent of the contract value to about 15 percent in the United States (compared with 50 percent for stocks), there were proposals to increase those margins even further in order to reduce leverage in the futures markets and thereby dampen speculation and price volatility. Others argued that current margin levels were sufficient to ensure that market participants in stock and derivative markets could meet their obligations to brokers and clearing houses in the case of 99 percent of the historical price changes observed in those markets. In addition, it was noted that lower margins for stock index futures contracts were justified on the basis of the shorter settlement period in the futures market and the lower volatility of indexes as opposed to the prices of individual stocks. Furthermore, some argued that higher futures margins would only serve to raise the cost of holdings and would tend to drive trading in such futures contracts to offshore markets.

In the United States, the members of the Working Group on Financial Markets agreed in early 1988 that margins in stock and derivative markets were adequate to maintain the financial integrity of the markets but could not agree on whether margin requirements should be increased above prudential levels in order to reduce leverage in futures markets and thereby attempt to curb price volatility. In Hong Kong, where the difficulties with default in the futures market were severe, it was proposed in the Report of the Securities Review Committee that margins on futures contracts should be designed to cover a higher proportion of likely daily price movements 1/ and that the margins be applied on the gross position of clients rather than on net positions. 2/

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1/ In the past, the margins had been related to one-day's expected price movement (plus an allowance for execution delays and risks if a defaulted position needed to be closed out).

2/ Under a net margin system, a broker that is a clearing member of the exchange with one client long 100 futures contracts and one client short 99 contracts would have to put up only one unit of margin. Under a gross system, the broker would have to put up 199 units. A gross margin system is used by the Chicago and New York Mercantile Exchanges.

The use of organized trading halts or daily price limits has been discussed in a number of countries. Planned trading halts on daily price limits are often viewed as substitutes for ad hoc trading halts and are designed to give market participants time to reassess the values of their shares, prevent the overloading of order transmission and clearance systems, and give regulators time to assess capital and margin requirements. Others have argued, however, that such circuit breakers can contribute to market instability by creating the expectation that the market could close at any moment and re-open later with prices at levels that can only be guessed at. In addition, such market closings were held by some to prevent investors from obtaining the liquidity needed to meet margin or capital requirements.

While equity markets in some major countries (such as Japan and France) already employ daily price limits, quite different conclusions concerning the potential role for these instruments in the stock and derivative markets have been reached in the United Kingdom and the United States. The International Stock Exchange (ISE) authorities in London have argued that any closure of the market due to a rapid price movement should not involve pre-established circuit breakers but should be determined by market regulators in light of market developments. As noted earlier, a heavy influx of buy or sell orders on the ISE is dealt with through a declaration of "fast market" conditions which effectively reduce the obligations of market makers to maintain firm price quotes. In this situation, the price quotations of market makers are only indicative and do not necessarily constitute firm prices at which transactions will take place. During the week of October 19, for example, fast markets were declared at seven different times for a total period of nearly seven hours. 1/

In the United States, the Working Group on Financial Markets recommended the introduction of coordinated trading halts and re-opening procedures in stock, options, and futures markets. In particular, trading halts of one hour would occur when the Dow Jones Industrial Average (DJIA) declined by 250 points (about 12 percent) from the previous day's closing value; and a two-hour trading halt would take place if the decline continued when trading resumed and the DJIA declined by 400 points (about 20 percent). In July 1988, the CME and NYSE made a proposal for achieving such coordinated halts in stock and derivative markets, and the National Association of Securities Dealers has indicated that the NASDAQ system will also join this arrangement.

Where discussions have taken place of the role of emergency liquidity assistance during periods of financial disturbances, it has been generally argued that the principal function of the central banks during a crisis period is precisely to maintain adequate liquidity in

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1/ The authorities on the ISE recently noted, however, that they will continue to monitor the development of circuit markets in the United States.

financial markets. However, such liquidity should be provided in a manner that is not viewed as ensuring the existence of any individual firm. The concern is the moral hazard problem that such guarantees could lead firms to undertake overly risky activities in the belief that they would be "bailed-out" in case of difficulties.

Finally, a number of studies called for greater contingency planning on the part of central banks, regulatory authorities, and exchanges to cope with problems that were encountered during October 1987. Such contingency planning would involve improving information flows between existing surveillance systems; enhancing and improving the sharing of information between exchanges themselves, their regulators, and clearing organizations; and better monitoring of the positions of major market participants. This has often involved the formation of liaison committees of the principal regulatory and self-regulatory agencies. In France, for example, a "Comité de Liaison des Marchés Financiers" 1/ was formed in April 1988 to provide a permanent consultative mechanism, especially in times of crisis. The National Companies and Securities Commission in Australia also announced that it would discuss a coordinated plan of action for futures market emergencies with the Reserve Bank of Australia, the Australian Stock Exchange Ltd., the Sydney Futures Exchange Ltd., the International Commodity Clearing House Ltd., the Australian Merchant Bankers Association, and the Unit Trust Association in Australia. In the United States, the Working Group on Financial Markets 2/ also emphasized the importance of contingency planning.

d. Regulation and supervision

The events of October 1987 have led to extensive discussion of the coordination of securities market regulation and supervision both between domestic stock and derivative markets and across national markets. The international coordination of securities markets supervision is at a much earlier stage of development than the coordination of banking supervision. In banking, supervision of the activities of the branches and majority owned subsidiaries of a bank is the responsibility of the authorities of the bank's home countries, and this supervision is conducted on the basis of consolidated accounts. In contrast, the operation of most securities houses and broker/dealers are supervised by the authorities of the countries in which they operate,

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1/ This was composed of the Governor of the Banque de France, the Chairman of the Futures Market Council, the Chairman of the Stock Exchange Council, the Chairman of the Paris Clearing and Settlement System for Financial Instruments, and the Director of the Treasury.

2/ As noted earlier, this group is composed of the Chairman of the Board of Governors of the Federal Reserve System, the Chairman of the Commodity Futures Trading Commission, the Chairman of the Securities and Exchange Commission, and the Secretary for Finance of the United States Treasury.

and this supervision may or may not involve a formal consolidation of accounts across countries (e.g., a securities house's foreign subsidiary may be treated as a single entity for purposes of supervision in the country in which it is operating even though it is part of a parent company that operates in many countries). This creates the possibility that subsidiaries of securities houses operating in many countries may face quite different capital adequacy and other regulatory requirements. Nonetheless, the failure of a firm's foreign affiliate could have substantially repercussions on both the parent firm and the country in which the affiliate is operating.

Recent proposals for structural changes in equity markets imply that there are certain international regulatory and supervisory issues that are likely to receive growing attention. <sup>1/</sup> Since equity markets are currently operating with a wide variety of circuit breaker mechanisms, a growing integration of these markets and increased cross-listings could create the possibility of sudden shifts in trading activity across countries and markets when trading halts occur in one market but other markets are still open. Within countries, this shifting of activity has been prevented by coordination of trading halts across national and regional markets for stocks and derivative products. However, even if all authorities sought to achieve coordinated use of circuit breakers (and there is considerable diversity of views on whether this is desirable), there is increasing evidence of off-exchange trading of shares between large institutional investors which are subsequently confirmed on an over-the-counter basis in a major market. This off-exchange trading appears to be motivated by a desire to adjust portfolios during periods when exchanges are closed, to escape certain exchange fees, and to be able to implement certain trading strategies more rapidly (especially if there are restrictions on the use of exchange facilities for implementing those trades). <sup>2/</sup> If such off-exchange transactions should become more important, they could raise a number of new issues related to the monitoring of securities activities.

A related issue involves the relationship between supervision of financial entities that operate across national markets and the functioning of national clearing and settlement systems. The difficulties encountered in October 1987 in some clearing and settlement systems created large liquidity needs for some major financial institutions (e.g., in meeting margin calls) and thereby created concerns about

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<sup>1/</sup> For a more detailed discussion of these issues, see Section V.6 below.

<sup>2/</sup> It has been reported that a number of institutional portfolio managers in the United States have been implementing portfolio insurance strategies through trades off the NYSE because of restrictions that have been placed on the use of the Designated Order Turnaround (DOT) system for trades reflecting computer-based trading strategies whenever the DJIA moves by more than 50 points.

counterparty default risks. In some markets, this affected the willingness of some institutions to engage not only in equity transactions but also in trades of government securities with certain other institutions. To avoid such contagion from spreading across markets during periods of financial disturbances will require not only greater efficiency for clearing and settlement systems but also an overview of the capital positions of key institutions on a consolidated basis across markets.

#### 4. Macroeconomic stability and equity markets

To date, the events of October 1987 have not reversed the trend toward greater integration of financial markets. For example, there has been no reversal of the movement to reduce or eliminate capital controls among the major countries, and the actions taken to achieve a unified financial market in Europe in 1992 will increase the degree of integration among these markets. <sup>1/</sup> Moreover, technological changes in telecommunications and computers are likely to further facilitate the linkage of national clearance and settlement systems.

While it is now clear that the sharp decline in equity prices in October 1987 had only limited effects on economic activity, in part due to the presence of structural safeguards and supportive monetary policy, renewed disturbances in global equity markets on a comparable scale will not necessarily be equally benign. Although global equity markets are still less integrated than other short-term securities markets, major shocks can nonetheless be transmitted quickly. Moreover, given the existence of relatively large current account and fiscal imbalances in many major countries, there is still the question of whether further shocks to equity prices are possible. Some have argued that, while the declines in equity prices in October 1987 may have reduced a market overvaluation, continuing trade and fiscal imbalances may produce a period of increased asset price variability. In this situation, attempts by the authorities to stabilize some prices, exchange rates or interest rates may mean that the instability associated with macro-economic imbalances will increasingly be reflected in prices on asset and commodity markets.

Even if macroeconomic factors are the primary source of shocks to financial markets, the structural characteristics of these markets may increase (or decrease) the likelihood of sharp adjustments in prices and trading volumes and whether the disturbances on one market are likely to spread to other asset markets. In this regard, the strengthening of the capital positions of market-makers, the increased capacity of order transmission, clearing and settlement systems, improved information flows, and greater emphasis on contingency planning should increase the structural capacity of equity markets to better confront large movements in equity prices. Moreover, the increased usage of circuit breakers

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<sup>1/</sup> For further reference on the latter, see Section VI.2 below.

should limit the scope of daily price fluctuations in equity prices. Since these circuit breakers are not uniform across markets, however, there may actually be increased scope for sudden shifts in activity across markets as some markets close and others remain open. In addition, to the extent circuit breakers prevent investors from adjusting their portfolios through the sale (or purchase) of equities, there is the question of whether they will be more likely to try to adjust portfolios by undertaking transactions in other securities and foreign exchange markets. To the extent that this occurs, the strengthening of equity market institutional structures may deflect a greater proportion of the effects of financial market disturbances onto other securities and foreign exchange markets.

#### V. Recent Changes in the Regulatory and Supervisory Environment 1/

Financial liberalization in major financial markets continued during 1987-88. The removal of controls over international capital flows, which started in the 1970s, has resulted in generally more equal access of foreign borrowers, intermediaries, and investors to domestic markets, as well as in the erosion of barriers in some countries separating the activities of banks and securities firms. It has also stimulated the development of new financial instruments. The potential effect of such changes on the safety and stability of increasingly integrated markets was, however, a matter of increasing concern during 1987-88. As a result, the movement towards liberalization has been complemented by a strengthening of supervisory controls aimed at containing certain risks and ensuring an orderly functioning of the markets.

The movement toward enhanced supervision has recently extended to cover the activities of institutions operating in securities and derivative products markets. The United Kingdom and France provide prominent examples of countries introducing major reforms of their supervisory structures in the securities area during the last two years.

In the United Kingdom, the Financial Services Act of November 1986 provided a comprehensive statutory framework for the regulation of the securities and investment business. 2/ Power to authorize and regulate investment firms were given in May of 1987 to a newly created Securities and Investment Board (SIB), which could either regulate firms directly or delegate supervisory authority to one of several Self Regulatory Organizations (SROs). Complementing these measures, in July 1987, the SIB established a set of regulations for the retail market, and the Finance Houses Association issued codes of conduct governing the lending

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1/ This section was mainly prepared by Liliana Rojas, Klaus Regling and Louis Pauly.

2/ See "The Restructuring of the U.K. Financial Markets," Appendix IX to "United Kingdom, Recent Economic Developments," (SM/88/38, Sup. 1, 2/18/88).

practices of its members (accounting for over 80 percent of installment credit extended by U.K. finance companies). Also in July 1987, the Bank of England established a new regulatory regime for the wholesale financial market, including the sterling, foreign exchange, and bullion markets. Moreover, in October 1987 a new Banking Act came into force, giving the Bank of England formal supervisory powers over commercial banks. This gave statutory authority to the Bank not only to protect depositors, but also to ensure systemic stability in the banking sector. In October 1988, the Government launched a new money market with the first issue of short-term Treasury bills denominated in European currency units (ECU). Six monthly ECU-bill offerings have been planned between October 1988 and March 1989 in order to build the market to as much as 2 billion ECUs initially.

In the United Kingdom, additional new reforms were undertaken in 1987-88 to complement the "Big Bang" of October 1986. In particular, in January 1987 shares of new or small companies were able to start trading through the creation of the London Stock Exchange's Third Market. In July 1987 the Bank of England allowed gilt-edged market-makers and other financial institutions to write warrants on certain government stocks; also in July, London Clear Ltd. was created in order to provide a system of central depository, clearing and settlement for the London money market. In addition, debt and equity issues denominated in sterling were freed from the requirement that they be lead-managed by a U.K. firm. At the end of 1987, building societies were permitted to sell unit trusts and offer credit cards and in February 1988, they were allowed to take minority stakes in life and general insurance companies, to compete in sectors such as fund management, banking, and financial services.

In France, in June 1987 the Government proposed the creation of a stock exchange council in charge of market regulation and surveillance and a specialized financial institution in charge of administering the exchange's common services. This proposal was implemented in January 1988 and the Council of Stock Exchanges was created. The main role of the Council is to set general regulations concerning the activities of stock companies, to approve entry of new securities houses as well as to take action against infractions of laws or regulations applicable to stock companies. The creation of the Council was part of a general stock exchange reform bill aiming to eliminate the monopoly of stock-brokers by 1992. In July 1987 the Banking Regulatory Commission tightened the rules governing risk exposures and reinforced surveillance of changes in banks' stakes in other companies. In January 1988 the Commission obliged banks to make loss provisions on their bond portfolios. Finally, in September 1987 the Futures Market Council increased the sanction powers of its financial instruments committee.

1. Implementation of risk-based capital standards in the banking sector

Since 1982 in particular, there has been a noteworthy trend across most industrialized countries toward a strengthening of the capital bases of banks. Complementing efforts to bolster reserves against potential loan losses, banks in most OECD countries have moved to increase core capital. In so doing, they have been responding to market pressures and to signals from their supervisory authorities. An indication of this trend is provided by a rough comparison of capital to asset ratios on a country by country basis (Table 45). With the exception of Japan, available data generally indicate an improvement in capital/asset ratios over a five-year period ending in 1987. This has been particularly evident in the cases of the United Kingdom and the United States.

For the U.S. banking system, strengthened capital bases and a general retrenchment of lending to developing countries have combined to render remaining exposure to developing countries more manageable than was the case a few years ago. During the past five years, U.S. bank claims on developing countries have declined and capital bases have increased in both absolute and relative terms. Total external claims of U.S. banks on developing countries peaked at US\$150 billion in 1983 and declined to US\$111.5 billion in 1987, even though the total assets of those banks continued to rise. In relative terms, the exposure of U.S. banks to developing countries peaked in 1982 at 11.7 percent of total assets and fell to 6.8 percent by 1987. During the same period the total capital of the banks increased steadily. The result for the U.S. banking system as a whole was a dramatic improvement in the ratios of capital to total assets (from 5.6 percent in 1982 to 7.9 percent in 1987) and of capital to developing country exposure (from 47.8 percent in 1982 to 115.9 percent in 1987). This trend continued in the first half of 1988 as indicated by a further increase in the capital asset ratio to 8 percent and in the ratio of capital to developing country exposure to about 128 percent (Table 36).

2. Major supervisory and regulatory reform initiatives

The increased ability of financial firms to assume risk <sup>1/</sup> resulting from the liberalization of markets and the development of new products has led major countries to strengthen their supervisory

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<sup>1/</sup> Among the kinds of risks financial institutions can assume are credit risk, a risk that a borrower will default; liquidity risk, the risk that the market in a particular instrument will be illiquid and force an investor to take a loss if he attempts to sell prior to maturity; interest rate risk, the risk that current interest rates may change and thus adversely affect current market prices; and settlement risk, the possibility that operational difficulties will interrupt delivery of funds even where the counterparty is able to perform.



structures and to seek to coordinate associated policies. One of the earliest efforts in this latter direction took place in December 1975 with the formation of the Committee on Banking Regulation and Supervisory Practices of the Bank for International Settlements (the Cooke Committee), whose main role was to coordinate the supervision of major industrial countries regarding the activities of international banks. <sup>1/</sup> In 1986, the Committee proposed that there should be a common definition of capital and capital requirements for international banks, linked to banks' risk exposure. It was proposed that the assessment of risk exposure include an evaluation of both on-balance and off-balance sheet risks. In March 1987 the United Kingdom and the United States issued a proposal for the convergence of their systems of monitoring capital adequacy, and, in June 1987, Japan agreed to participate in the efforts to reach agreement on common standards. This effort culminated in July 1988, when the G-10 central bank governors endorsed a plan to harmonize capital standards for international commercial banks. <sup>2/</sup> Since that time, national supervisors have been working on detailed guidelines for implementation of the proposals, which specify minimum levels for bank capital but leave room for national authorities to impose more stringent requirements. In November 1988, the United Kingdom became the first country to put the accord into effect and announced an early deadline for full implementation (June 30, 1989).

Since the financial structures of banks generally reflect unique national business customs, tax policies, accounting practices, and other country-specific traditions, the impact of the new capital standards is expected to vary by country. The general requirement that banks maintain minimum capital bases of 8 percent of risk-weighted assets is being phased in over a five-year period that commenced at the end of 1987. Half of the required capital (4 percent) is to be in the form of core capital (generally, ordinary paid-in share capital plus disclosed reserves less goodwill), while the other half may be in the form of supplementary capital (various types of quasi-capital securities and non-specific reserves, subject to certain ceilings and deductions). Earmarked and specific reserves for particular poor quality assets are not included in capital. By the end of 1990, banks will be expected to meet a standard of 7.25 percent, of which at least 3.625 percent should be core capital. Until the 8 percent level is fully achieved at the end of 1992, national supervisors retain a degree of discretion on such matters as the amount of subordinated debt and general loan loss reserves able to be counted as supplementary capital, the level of supplementary capital able temporarily to be considered as core capital, and the amount and timing of deductions of goodwill from core capital. By the end of 1992, the 8 percent target is to be achieved with no supplementary capital included in the core, with general loan loss

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<sup>1/</sup> See G.G. Johnson, Aspects of the International Banking Safety Net, Occasional Paper 17, IMF, March 1983.

<sup>2/</sup> See "Recent Developments in Commercial Bank Financing and Restructuring for Developing Countries," (SM/88/172, 8/10/88).

reserves limited to 1.25 percent in supplementary capital (up to 2 percent on an exceptional and temporary basis), with allowable subordinated debt limited to 50 percent of core capital, and with goodwill entirely deducted from core capital.

Capital ratios are to be calculated on the basis of asset portfolios and off-balance sheet commitments weighted by credit risk categories. Once again, room has intentionally been left for some national discretion in the assignment of appropriate weightings. Risk weight assignments which have received most attention include cash equivalents (including claims on OECD governments or governments party to the General Arrangements to Borrow of the Fund), with a risk weighting of 0 percent; claims on multilateral institutions like the World Bank, either 0 percent or 20 percent; claims on banks incorporated in OECD or GAB countries or interbank claims involving other countries and having original maturities of less than a year, 20 percent; claims on domestic public sector institutions, 0, 10, 20 or 50 percent; residential mortgage loans, 50 percent; commercial loans or loans to non-OECD or GAB governments, 100 percent. Off-balance sheet items are first to be converted to on-balance sheet equivalents and then subjected to the standard risk weightings. General guarantees, for example, are to be converted at 100 percent and then treated as loans; note issuance facilities are to be converted at 50 percent; short-term, self-liquidating trade commitments at 20 percent. <sup>1/</sup>

Implementation guidelines were expected to reflect differing circumstances prevailing in each of the G-10 countries. For many European countries, those guidelines will be further complicated by the need to conform over time with European Community efforts to create a single European banking market. Notwithstanding such complications, it appeared that most banks across the G-10 countries would be able to conform to the new standards within the time period allowed. In certain cases, however, notably in the United States, France, Japan, Italy and Belgium, important adjustments were expected. Some important differences were also expected to arise in the strategies employed by banks to meet the new standards and in the degree of flexibility provided by national supervisors.

In the United States, initial implementation guidelines announced by the Federal Reserve in August 1988 applied to all banks under its authority, including bank holding companies. Consistent guidelines were expected from other regulatory agencies. Most smaller and regional banks were, even in 1988, generally in conformity with the 1992 standards, but a number of money center institutions were expected to require adjustments in their asset portfolios or in the size and composition of their capital bases. Some analysts initially estimated,

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<sup>1/</sup> For a more detailed discussion of risk weights refer to Credit Suisse First Boston, Capital Adequacy: The BIS Framework and its Portfolio Implications, July 1988.

for instance, that major New York-based banks would need to bolster their capital by up to US\$15 billion before 1992 or else to make substantial changes in their balance sheet structures. The Federal Reserve guidelines, however, attempted to ease the transition for those banks organized as holding companies by broadening the types of preferred share issues qualifying as core capital, by loosening requirements for the deduction of goodwill already carried on the books, and by exempting subsidiaries principally engaged in securities activities. American regulators have also shown flexibility with regard to the treatment of general loan loss reserves and have opted for low risk weightings for such assets as government bonds of all maturities. The extent to which relatively undercapitalized U.S. banks or bank holding companies will attempt to make up for any shortfall by deliberately shrinking the volume of their higher risk assets is still unclear. It should be noted, however, that the reduction in developing country exposures discussed above is consistent with such a strategy.

While the new capital standards were being negotiated, observers widely believed that any agreement would have the most serious impact on major Japanese banks, which have long been viewed as relatively undercapitalized. For fiscal year 1987, for example, Japan's largest commercial banks possessed average levels of core capital in the 2 percent range. Although certain adjustments will therefore have to be made, two factors may make this less difficult than first supposed. The larger Japanese banks typically possess significant undisclosed reserves, mainly resulting from the practice of reporting such assets as long-term securities holdings and real estate at historic (and low) book values. Moreover, the structure of Japan's capital markets may work to facilitate the raising of new core capital, especially if the authorities provide a wide range of options for the types of capital instruments deemed acceptable for purposes of meeting the new standards. Early indications were, in fact, that the Ministry of Finance intended to ease the process of adjustment by making liberal use of the discretion left to it by the terms of the Basle agreement. Its initial implementation guidelines, for example, specified a 0 percent risk weighting for Japanese government bonds (as well as for obligations of multilateral institutions of which Japan is a member) and accepted the Basle guidelines as fully replacing more stringent capital requirements originally announced in 1986. By the end of 1988, Japanese banks appeared well on their way to meeting the transitional targets specified in the Basle agreement.

Within Europe, the new capital standards were expected to require varying degrees of adjustment. In 1987 the U.K. clearing banks were already in a position to meet the new requirements. Most other banks in that country were expected to be in a position to meet them by the comparatively early deadline now set for June 1989. Similarly, the principal Swiss banks exceeded the standards even before the Basle agreement was concluded. German authorities, for their part, expected the large, internationally active banks under their purview to encounter few problems in meeting the new standards within the timeframe

contemplated. Bank capital has traditionally been viewed narrowly in Germany and the portfolio diversification characteristic of universal banking structures has long been seen as lessening the need for large, publicly disclosed capital bases. For the larger German banks, significant levels of undisclosed reserves were expected to ease the transition; as the standards are applied to smaller German banks, however, some significant balance sheet adjustments could be required. Adjustment may also be significant in France where the capital bases of a number of banks are relatively low and where nationalized banks have limited options for building core capital. The situation is somewhat similar in Belgium and Italy, although immediate challenges for internationally active banks appeared surmountable.

Outside the G-10 countries, reaction to the Basle agreement has been mixed. Nevertheless, a number of non-G-10 OECD countries and some *major offshore banking centers* announced their intention to adhere to the new standard. As discussed below, the Basle Committee has also begun to interact more closely with securities market regulators in light of the need to address the competitive and prudential implications of differences in the capital standards applied to banks and to securities houses. The members of the Committee, it should be noted, have specifically sought to broaden international support for the new capital standards and to encourage their adoption by other countries. In this connection, in October 1988 the agreement was formally presented to representatives from some eighty countries attending the Fifth International Conference of Banking Supervisors. Although generally viewed by conference participants as constructive, a number of developing countries objected strongly to the differential risk weighting of claims on sovereign borrowers on the basis of membership or non-membership in the OECD or GAB. The fear was that this could unfairly disadvantage a number of countries when they approached international markets in the future. Also, in some other countries, particularly in the Middle East, concerns have been raised about the implication this classification of countries may have upon the cost of capital for their national banks. The Basle Committee is expected to keep this aspect of the new standards under review as implementation proceeds.

### 3. Regulatory coordination in securities markets

During the past two decades the gradual integration of national banking markets has encouraged multilateral efforts to coordinate regulatory policies among the industrialized nations. As discussed, on the issues of market access and prudential supervision of banks, significant progress has been achieved in recent years in such fora as the OECD and the BIS Committee on Banking Regulation and Supervisory Practices. In the context of a progressive blurring of functional distinctions between banks and other types of financial intermediaries, analogous efforts to coordinate policies affecting other aspects of national and international financial markets have recently been stimulated.

Contact between national regulatory authorities is not an entirely new phenomenon in the securities sector. Common problems have in the past spurred bilateral and multilateral discussions, but such interaction has usually taken place informally and on an ad hoc basis. With the rise of the Euromarkets, the coalescence of a distinct Eurobond market, and the overseas growth of intermediary institutions in the 1970s, the need for collaboration became more obvious. Indeed, one of the earliest assignments of the Committee on Financial Markets of the OECD resulted from problems associated with the marketing of mutual funds, both within and across the investment markets of member states. 1/ This led in 1972 to an initial agreement on common ground rules for the operation of mutual funds and similar investment vehicles. Other concerns related to the protection of investors led to further work by the Committee, in conjunction with the Commission of the European Economic Community, the Banking Federation of the EEC, and the International Federation of Stock Exchanges. On the basis of this work, the Council of the OECD in 1976 adopted a recommendation to member states specifying minimum disclosure rules for all securities offered to the investing public. 2/

In the early 1970s, the OECD also began to clarify and seek the removal of obstacles to the development of the Eurobond market with the goal of promoting more efficient linkages with national bond markets. In a related move, the Commission of the EC in 1976 promulgated recommendations for a code of conduct for securities market professionals. Formal consultations among a broader group of official supervisory authorities commenced a year earlier, with the first annual conference of the International Organization of Securities Commissions (IOSCO).

During the 1980s, a range of economic, political, and technological developments made it clear that the efficient and safe operation of national and international securities markets could no longer be assured in the absence of more effective policy coordination between national authorities. Market access issues have been prominent in the ensuing dialogue. As in the banking sector, two of the institutional manifestations of a broadening trend toward international capital mobility have been the physical expansion of securities companies beyond their home markets as well as the direct marketing of securities services across

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1/ Committee on Financial Markets (OECD), Standard Rules for the Operations of Institutions for Collective Investment, Paris, OECD, 1972. The Committee, a plenary body of the OECD, was established in 1969 and given a broad mandate by the member states to "study measures intended to improve the operation of national financial markets and the international market."

2/ Committee on Financial Markets (OECD), Minimum Disclosure Rules Applicable to All Publicly Offered Securities, Paris, OECD, 1976. For related background, see Committee on Financial Markets (OECD), The Markets for International Issues, Paris, OECD, 1972; and The International Issue of Bonds, Paris, OECD, 1975.

borders. Not surprisingly, since such activities by their nature link market structures that for historical reasons remain idiosyncratic, problems of competitive equity and market efficiency have arisen. In this connection, on a multilateral basis the OECD is seeking to extend the scope of its Codes of Liberalization of Capital Movements and Current Invisible Operations. It is also attempting to clarify and broaden the obligations of member states to ensure national treatment for foreign institutions operating in primary and secondary securities markets abroad or providing collective investment, portfolio management, and advisory services across national borders. This work is beginning to focus on operational experiences in specific subsectors of national markets where obstacles to freer competition can be subtle and differently perceived by regulatory authorities or market participants. Related work is being done under the auspices of the General Agreement on Tariffs and Trade in the Uruguay Round of trade negotiations.

Although the general trend across industrialized countries during the 1980s has been toward more open securities markets, and toward more liberal conditions of competition generally, particularly difficult problems arise as a result of deepening institutional linkages between universal-type markets--where commercial and investment banking functions may be carried out under a single corporate charter--and segmented markets--where commercial banking and investment banking functions are legally separate. European banks, for instance, have faced legal obstacles in offering securities services in Japan, despite their long experience with such activities at home. Similar problems have emerged in the currently changing markets of Canada and the United States.

If a pattern may be said to have emerged as a result of bilateral negotiations aimed at ameliorating such difficulties, it has generally been one of developing flexible accommodations which aim, over time, to approximate equivalent access across markets without necessarily forcing radical reforms of underlying regulatory structures. In recent years, for example, regulatory rules in Japan which forbid commercial bank ownership of securities operations (Article 65 of the Securities and Exchange Law) have been reinterpreted to permit the limited establishment of securities affiliates of certain international banks. Provisions of banking laws of the United States have worked to similar effect, especially a provision of the International Banking Act of 1978 which "grandfathered" the securities operations of European banks already established in the domestic market. Nevertheless, as international reactions to the reciprocity provision of the European Community's draft Second Banking Directive, discussed below, have made clear, market access problems remain capable of disrupting orderly linkages between changing national financial markets. Such problems continue to arise as foreign intermediaries deepen their involvement in the securities markets of other nations and continue to provide an important impetus for ongoing bilateral and multilateral consultations aimed at rendering distinctive regulatory policies and practices compatible.

Both within Europe and more broadly, official consultations have often focused in recent years on issues of technical harmonization across diverse securities markets. In the context of ambitious plans to complete the internal European market by 1992, more fully covered below, mutual recognition of associated financial practices, if not complete harmonization of national standards, remains a goal of EC states. Work on a Pan-European data information system, which would more effectively link trading on various exchanges, complement those plans. In similar endeavors, separate working parties of IOSCO and of the OECD's Committee of International Investment and Multinational Enterprise (CIME) are attempting to devise common standards for operations in nascent Euro-equity markets. Technical coordination is also the intention of ongoing work programs of the International Federation of Stock Exchanges and the International Society of Securities Administrators. Technological and market innovations, such as screen based trading and a widening use of futures and options as financial management tools, complicate such efforts, even as they underline the increasing importance of cross-national regulatory coordination.

As seen most clearly in the aftermath of the October 1987 events discussed above, the impulse toward cooperation is becoming especially clear on questions of prudential control over integrating securities markets. At the most basic level, investor protection has been a traditional rationale for official oversight of securities markets. With the gradual development of international securities markets and the deepening of operational linkages between existing national markets, the protection of investors from market manipulation has become more difficult. Just as countries differ in their supervisory coverage of markets, especially over-the-counter markets and futures and options markets, they differ in their approaches to dealing with such abuses as insider trading. Matters are further complicated by the fact that various countries have traditionally fragmented regulatory authority over securities markets along functional lines. As markets become more deeply linked internationally, such idiosyncracies can potentially create regulatory gaps which can potentially penalize unwary investors and undermine market efficiency. The necessity for agreement on fully harmonized regulatory practice in this area is debatable, but thus far securities market regulators lag considerably behind their banking market counterparts in this respect. The precise division of authority between home and host country supervisors as well as general standards and methods for investor protection, have yet to be agreed upon. As discussed above, pressures are also gradually building for cross-national consensus on standards for short sales, margin requirements, clearing and settlement procedures, financial disclosure, and other aspects of modern securities markets. The direction for future official negotiation on such matters is being charted in various bilateral contexts. In 1986, for example, the British Department of Trade and Industry and the U.S. SEC, together with the CFTC, signed an initial agreement to cooperate in uncovering insider trading and other types of securities fraud. American and British futures regulators followed this up in September 1988 with a memorandum of understanding which broadened

the scope for information sharing and took a first step toward clarifying the supervisory responsibilities of home and host country authorities. U.S. authorities have negotiated analogous arrangements with Canada, Switzerland and Japan. Efforts by various regulatory authorities to reach similar understandings involving other countries are known to be underway.

Although bilateral agreements have been helpful in dealing with immediate problems and safeguarding immediate supervisory interests, questions have been raised concerning the ultimate efficacy of such mechanisms for overseeing an industry rapidly becoming international in its scope. Without a coordinated multilateral approach to securities supervision, at least among countries possessing the largest securities markets, business activities could conceivably shift over time toward less regulated environments. Various public interests in stable and efficient markets could thereby suffer. Many observers see a further rationale for a multilateral approach to international securities regulation in the need to avoid competitive inequities among differently structured intermediaries, like banks and securities companies, providing increasingly substitutable services.

At a broader level, another set of prudential challenges confront regulatory and supervisory authorities as national securities markets become more interdependent and as the functional connections between them and traditional banking markets become more intricate. Although integration is still at an early stage, the possibility that extreme instability in one national market or submarket could develop into a systemic crisis appears likely to increase. On a global basis, the securities industry itself is undergoing a process of consolidation. Intermediaries now commonly deal in a wide range of financial instruments and markets. In the face of both technological innovation and market liberalization, a trend toward fewer, better capitalized intermediaries could become clearer. As discussed above, the failure of important intermediaries in such an environment could potentially pose a global threat to financial stability. Moreover, with deepening linkages between various financial submarkets and a blurring of functional distinctions between banks and securities companies even in countries which have traditionally kept them separate, the task of shielding national and international payments systems has become much more complex. Protecting those systems constitutes a conventional rationale for providing certain banking intermediaries with explicit or implicit official safety nets, along with an attendant set of supervisory controls to safeguard public interests and offset the risk of imprudent management. Extending such approaches to a wider group of intermediaries could mitigate the risk of systemic instability, but only at potentially significant cost. The trend toward global, liberalized capital markets, at least among industrialized countries, has generally been welcomed because of perceptions of the positive benefits associated with increasing efficiency and risk diversification. New regulatory actions entailing the deliberate or implicit extension of official safety nets could work in the opposite direction by distorting the flow



of capital through those markets. They could even increase macroprudential concerns by encouraging excessive risk taking by intermediaries which perceived themselves to be protected from failure. On the other hand, the maintenance of uncoordinated approaches to systemic risk management can have important negative consequences for the market efficiencies liberalization and integration are intended to encourage. Obvious difficulties are created, for example, when for prudential reasons competing intermediaries are expected to meet different standards of capital adequacy.

The systemic dilemmas posed by integrating securities markets provide a further incentive for coordination among national securities supervisors. Work programs and information exchanges on the inter-related issues involved are continuing within IOSCO, the OECD, and an informal forum for securities supervisors from a number of countries known as the Wilton Park Group. <sup>1/</sup> At the same time, the immediate questions posed by the implementation of international supervisory and capital adequacy standards for banks have encouraged initial contacts between banking and securities regulators in various multilateral fora. Much remains to be done, and the underlying issues appear likely to become more prominent in the future. The communique issued after the September 1988 meeting of the finance ministers and central bank governors of the Group of Seven provided the first indication of the increasing importance of those issues at the highest levels of government. <sup>2/</sup>

#### 4. Major regulatory changes in selected countries

In Japan, regulations discouraging the emergence of a domestic commercial paper market were abolished in March 1987. In particular, both banks and securities houses were allowed to underwrite and sell yen commercial paper and to treat commercial paper as commercial bills rather than as securities. In January 1988 the government also allowed some nonresident companies to issue yen commercial paper, foreign firms were permitted to issue Euro-yen commercial paper, and domestic and foreign security houses were allowed to underwrite and trade in Euro-yen commercial paper.

To improve access to trading of government bonds, in March 1987 the government abolished a regulation limiting the number of foreign securities firms allowed to participate in auctions for medium-term bonds; and in May 1987 short-selling of Japanese Government bonds was permitted within a monthly ceiling of 30 percent of net assets for domestic brokers and 20 percent of own capital for banks with dealing rights. In October 1987 the government bond underwriting syndicate was opened to

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<sup>1/</sup> One limitation faced by these fora is a lack of universal membership.

<sup>2/</sup> For further reference see "Statement of the Group of Seven," Berlin, Federal Republic of Germany, September 24, 1988.

foreign banks. As a result of these liberalization measures, foreign financial houses were able to establish a gray market in new Japanese Government bonds in September 1988 when some foreign houses offered to sell bonds at discount in advance of the actual issue. The discount was possible because foreign banks and brokers passed part of their commission on to their clients. In September 1988, it was decided to introduce a price-competitive bidding system in the ten-year government bond issuance market beginning April 1989. In October 1988, the share of foreign financial institutions in the underwriting syndicate was raised from 2.5 percent to 8 percent. Finally, in June 1988, the government allowed life insurance companies to raise foreign currency loans to hedge their overseas investments.

Further steps toward reduction of the division of activities between securities firms, banks and other financial institutions were taken in Japan in August 1987 when the government allowed banks to resell newly issued government bonds from the time of issue, instead of having to hold them for at least 40 days. In addition, city banks, which previously from incurring debt with maturity limits of two to three years, were allowed to issue yen-convertible bonds as from April 1988. Certain Tokyo Stock Exchange (TSE) regulations were also relaxed during 1987; in July, margin trading controls were relaxed; and in September regulations concerning the distribution of commission income between domestic and overseas offices were modified in order to achieve equal treatment for both foreign and Japanese brokers. As an additional measure of financial liberalization, the minimum maturity for European bonds issued by nonresidents was reduced at the beginning of 1987 from five to four years, and this authorization was extended in June 1987 to include resident borrowers. Finally to continue a program of decontrol of interest rates on deposits, in April 1988, the minimum size of large time deposits and certificates of deposits was cut from ¥ 100 million to ¥50 million and the minimum size of large time deposits was further cut to ¥30 million in November 1988. In April 1988, the "maruyu" system of tax-free savings accounts was eliminated, increasing the competitiveness of alternative sources of saving.

In March 1987 the French Stock Exchange Commission abolished the requirement for firms based in the EC to seek approval from the French government to obtain listings, and in September 1987 French subsidiaries of foreign banks were allowed to lead-manage French franc bond issues instead of having to co-lead with French banks. Moreover, in December 1987 to encourage investment abroad, French firms expanding their existing stake in a subsidiary in a EC country were granted a loss allowance for up to five years. As part of the stock exchange reform initiated at the beginning of 1988, domestic and foreign firms were allowed to take stakes of up to 30 percent in French stockbroking firms which, in turn, were also allowed to expand the scope of their financial activities.

In order to ease the functioning of the futures market, the French Government proposed in May 1987 to adopt a tax structure similar to other countries and to allow savings institutions to grant loans to the nonpersonal sector, and in late 1987, brokers working only in the commodities futures market were allowed also to trade in financial instruments. Another group of important financial liberalization measures were oriented towards the privatization of several financial institutions. In particular, in late 1987, the control of the "Caisse Nationale de Credit Agricole" was returned from the state to regional member banks.

In Germany, the process of financial liberalization continued during 1987-88. In October 1988 nonresidents were allowed to buy German Federal Government bonds (Bundesobligationen). Federal savings bonds and Treasury financing notes still remain prohibited to nonresidents. Access to German financial markets was broadened in May 1987, when trading in the new national secondary securities market began. Trading in this market was to be regulated by the individual stock exchanges and regional regulators. In June 1987, the Bundesbank allowed the private use of ECUs and, therefore, holding of ECU accounts with credit institutions and some forms of borrowing in ECUs were permitted. Starting in August 1987, the notification period for the issuance of Euro-DM bonds was reduced from 15 days to 2 days. Moreover, in order to reduce special tax exemptions, in October 1987 the Government decided to introduce in 1989 a 10 percent withholding tax on interest payments on bonds issued by residents.

In the United States, the most important measures concerning improvements in access to financial markets involved steps towards the liberalization of trading in foreign assets and the elimination of certain controls limiting bank activities in the securities markets. In March 1987 American exchanges were allowed to trade futures contracts in Canadian, Japanese, and U.K. government securities and foreign firms were permitted to trade futures in the United States based on foreign government securities; and in July 1987 the Commodity Futures Trading Commission (CFTC) lifted a ban on the sales of foreign options and decided to apply U.S. regulatory requirements to foreign futures and options. Moreover, in June 1987 the Securities and Exchange Commission (SEC) allowed U.S. institutional investors to purchase unregistered shares offered by foreign companies, with the provision that such shares not be sold in the United States. An additional measure aimed at increasing competition in the international capital markets was proposed by the SEC in June 1988, whereby barriers to the offering of Euro-bonds directly to U.S. nationals abroad would be eliminated and the ability of U.S. residents to establish companies abroad for the purpose of investing in foreign securities would be increased.

With regard to the expansion of bank activities, in March 1987 the Federal Reserve Board allowed a bank to issue and trade commercial paper through an independent subsidiary, and in April 1987 three major New York money center banks were permitted to underwrite and deal in

mortgage-backed securities and municipal revenue bonds through wholly owned securities subsidiaries. In May, however, the New York Court of Appeals blocked the Board's authorization of these activities. Although the Federal Reserve Board authorized several banks in June 1987 to underwrite and deal in consumer-related receivables, the implementation of these authorizations was postponed by Congressional moratorium. In February 1988, the New York Court of Appeals upheld the authorizations granted by the Federal Reserve Board, and the Supreme Court subsequently decided not to hear a case aimed at overturning the decision.

In Canada, the Federal Government submitted a plan at the beginning of 1987 to establish international banking centers in Montreal and Vancouver. In mid-1987 domestic banks and foreign dealers were allowed to provide a full range of investment services. By the end of 1987, seven new foreign securities firms were permitted to establish in Ontario. Further Federal and provincial reforms followed.

Italy undertook analogous measures during 1987 directed toward the scheduled integration of EC capital markets. In April 1987 the National Stock Exchange Supervisory Commission submitted a plan for a global stock exchange reform by end-1992, and in May 1987, territorial restrictions on the operation of foreign bank branches in Italy were eliminated. Additional measures liberalizing capital movements were also taken in mid-1987, when a 15 percent noninterest bearing deposit requirement on capital investments abroad was eliminated. Banks were also allowed to expand the range of their activities. In particular, in February 1987 they were permitted to set up subsidiaries dealing with corporate investment, underwriting and risk capital funding, and in May credit controls on lira bank lending were abolished. In February 1988, the amount of liquid assets that Italian companies trading abroad may keep in foreign currency was increased, and in June 1988 companies were allowed to open current accounts abroad. More recently, in October 1988, Italy's new foreign exchange law came into effect. The new law, perhaps the most important step taken toward liberalization to date, provides freedom for all foreign exchange transactions not expressly prohibited and guarantees free repatriation of capital and factor income. While some control on capital still remain, Italy, following the approval in June by the EC's Council of Ministers of a new directive, has assumed the obligation to remove all remaining controls by July 1, 1990.

Mainly as a result of the continuing process of financial liberalization and increasing competition between financial institutions, several new hedging instruments were created during 1987-88. In the United Kingdom, the London International Financial Futures Exchange (LIFFE) in September 1988 started trading German Federal Government bond futures, the only DM-denominated futures contract on a fixed income bond currently available. In 1987 the Bank of England allowed trading in a futures contract on Japanese Government bonds.

In May 1988, bills to create financial futures and options were approved by the Japanese Diet. These bills granted both banks and securities firms permission to broker domestic and foreign public sector futures and options; the bills also granted securities firms exclusive rights to broker stock-index futures and options. Trading in stock-index futures started in September 1988 in Tokyo and Osaka.

In France, MATIF (the Paris financial futures market) started at the beginning of 1988, its first interest rate options contract based on a notional 10-year, 10 percent government bond futures contract. In the Netherlands, the European Options Exchange (EOE) in May 1987 started trading a new stock-index option, and in New Zealand the Futures Exchange launched two new futures contracts, involving a 90-day bank bill and the Barclays stock index.

## VI. Changing Territorial Barriers in Financial Services 1/

### 1. The U.S.-Canada Free Trade Agreement--financial services aspects

In October 1987, agreement in principle was reached on the elements of a free trade agreement between Canada and the United States. The legal text was finalized in December and was signed by the President of the United States and the Prime Minister of Canada on January 2, 1988. In September 1988, the United States Congress approved, and the President signed, enabling legislation for the Canada-U.S. Free Trade Agreement (FTA). The approval of implementing legislation by the Canadian Parliament is still pending but is expected to be passed soon, given the results of the elections held in Canada on November 21, 1988. The FTA is scheduled to become effective on January 1, 1989.

The FTA is one of the most comprehensive bilateral agreements ever negotiated. It commits the United States and Canada--the world's largest bilateral trading partners--to eliminate or reduce barriers to trade and investment and to "level the playing field" for bilateral economic relations. It includes, inter alia, a phasing out of all tariffs over a 10-year period, a reduction in certain nontariff barriers, a significant liberalization of investment flows, and the establishment of mechanisms for the resolution of trade disputes. The

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1/ This section was mainly prepared by Augusto de la Torre and David Folkerts-Landau.

FTA breaks new ground particularly in respect of services, investment, and technology transfer. 1/

a. Financial services in the Canada-U.S. Free Trade Agreement

The agreement on financial services (Chapter 17 of the FTA) covers commercial banking, investment banking, and trust and loan companies. The exemptions from restrictions on ownership of Canadian-controlled firms provided for under the agreement (see below) also apply to insurance companies; however, insurance activity is mainly covered by the services and investment chapters of the FTA. The commitments in the financial services agreement are implicitly based on the principle of granting "national treatment," as opposed to "reciprocal treatment," to the other party's financial institutions. However, Chapter 17 does not contain an explicit, general undertaking by the parties to abide by this principle. In effect, the negotiations were geared to create conditions which would approximate equality of competitive opportunity between the two countries.

Financial institutions, other than insurance, are not subject to the dispute settlement arrangements applicable to the rest of the FTA. Instead, both countries have agreed to a special consultative mechanism between the United States Department of the Treasury and the Canadian Department of Finance. This mechanism is not only intended to resolve disputes arising from the implementation of Chapter 17, but also to oversee the effects of further financial liberalization in both countries after the FTA goes into effect. Unlike the chapter on services, Chapter 17 does not cover regulatory policies at the state or provincial levels.

(1) Background to the agreement--financial integration and deregulation trends

The financial services agreement was negotiated against a background of increasing cross border activity in financial services between Canada and the United States. Operations of U.S. commercial bank subsidiaries in Canada have grown markedly, especially since the 1980 revisions to the Canadian Bank Act which, inter alia, authorized the entry of wholly owned subsidiaries of foreign banks (as Schedule B banks). As of end-April 1988, there were 15 U.S. commercial bank subsidiaries operating in Canada with assets totaling C\$11.7 billion.

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1/ A summary of the major elements of the FTA is found in Appendix III of the staff report on Recent Economic Developments for the 1987 Article IV consultation with Canada (SM/88/21, Sup. 1, 1/21/88). For an evaluation of selected elements of the FTA and of the FTA as a whole, see, for example, J.J. Schott and M.G. Smith (eds.), The Canada-United States Free Trade Agreement: The Global Impact, Institute for International Economics, Washington, D.C. and The Institute for Research on Public Policy, Canada, 1988.

Canadian banks, for their part, have been active in the United States for a longer time. Furthermore, the U.S. International Banking Act of 1978 grandfathered the Canadian banks' privilege to maintain retail and other banking operations in more than one state. At end-1987, there were 32 Canadian bank branches and agencies in the United States, with total assets of US\$27 billion, and 12 U.S. chartered banks, with total assets of US\$9.7 billion, were wholly owned by Canadians. Also, there were 48 U.S. chartered banks partially owned by Canadians--with Canadian participation of at least 50 percent in 10 of them. In addition, 12 Canadian firms or subsidiaries are, at present, members of the New York stock exchange, while 50 U.S. security dealers are registered with the Ontario Securities Commission.

The above data understate the degree of the financial linkages between Canada and the United States because, as part of the globalization of the financial industry, both countries have continued to increase their dealings in offshore securities and capital markets. In turn and partly as a result of the competitive pressures from offshore markets, processes of financial reform and liberalization have been underway in both countries.

In Canada, following broad proposals for financial reform (New Directions for the Financial Sector) announced by the Government in December 1986, the Bank Act was changed in 1987 to permit the establishment or acquisition of security dealers by other federally regulated financial institutions, including foreign banks. Five of the leading Canadian banks have acquired holdings in securities houses since then. The process of opening up of the securities markets to foreigners actually began earlier in 1986, when the Ontario Government, empowered by the fact that the securities industry is regulated at the provincial level, announced steps to remove registration impediments to foreign security dealers. Under the new rules, limits on ownership of security firms by foreign financial institutions were fully phased out as of end-June 1988.

In the United States, there has been a stalemate on reform of financial sector legislation in the last five years. However, the pressures from the banking community for further deregulation keep on increasing. While Congress debates the merits of deregulation, administrative decisions by bank regulators, particularly at the state level, continue to widen the scope of action for banks and other financial institutions. In particular, the constraints imposed by the 1927 McFadden Act on interstate retail banking is gradually being eroded by regional agreements among states which increasingly permit banks to cross state lines. As of end-October 1988, only four states (Hawaii, Kansas, Montana and North Dakota) still lacked legislation permitting some kind of interstate activity for banks. Nine states already allow reciprocal nationwide banking, while an increasing number of the remaining states have passed or are passing laws to permit nationwide reciprocal banking after specific future "trigger" dates. In addition, pressures are rising to amend or repeal the 55-year old Glass-Steagall

Act, which bars commercial banks from underwriting and trading in corporate securities. Already in some states, bank regulators have authorized state-chartered banks to engage, in a limited and selective fashion, in insurance, securities, and real estate transactions. In June 1988, the Supreme Court let stand the Fed's ruling allowing banks to engage in limited underwriting of commercial paper, municipal bonds, mortgage-backed securities, and consumer-related receivables.

Chapter 17 of the FTA not only reflects, but is likely to provide a further impetus to, the ongoing processes of financial liberalization in both countries. In effect, both countries declare that the provisions in Chapter 17 shall not be construed as representing the mutual satisfaction of the Parties concerning the treatment of their respective financial institutions. They are, therefore, explicitly committed to consult and to liberalize further the rules governing their markets and to extend the benefits of such liberalization to the other party's financial institutions.

## (2) Canadian commitments

Under the agreement on financial services, Canada will essentially remove for U.S. financial institutions most of the discriminatory practices--such as restrictions on ownership, asset growth, market share, and capital expansion--currently placed on foreign financial institutions operating in Canada. U.S. commercial bank subsidiaries will be exempted from the 16 percent ceiling set by the Canadian Bank Act on the aggregate foreign bank share of all bank domestic assets. In practice, this ceiling has not been binding. As of end-August 1988, foreign chartered banks accounted for only 11.5 percent of all banks' domestic assets.

In the area of ownership, Article 1703 of the agreement exempts U.S. firms and investors from some aspects of the "10/25 rule." According to the Bank Act, the acquisition of ownership shares in a federally-regulated Canadian-controlled institution is restricted to 10 percent for any individual nonresident firm or investor, and to 25 percent for all nonresidents collectively. Article 1703 essentially exempts U.S. investors from the 25 percent restriction. However, the 10 percent limitation--which embodies an ownership policy requiring that large Canadian financial institutions be widely held--would continue to apply to all investors, resident and non-resident. Thus, majority ownership stakes with larger banks (i.e., Schedule A banks) will remain off limits for U.S. companies. They will, however, receive the same rights as Canadians to diversify in the financial sector by building or buying federally-regulated insurance companies, trust and loan companies, and Schedule B banks. As mentioned earlier, as of June 1988, there are no regulatory impediments on foreign ownership of security firms. Finally, it should be noted that Article 1703 does apply to provincially incorporated financial institutions which, in fact, include important insurance and trust companies.



Despite the absence at the provincial level of formal impediments to foreign ownership of security dealers, applications for entry by U.S. securities firms have, in fact, tended to be held up in the investment review process at the federal level, partly reflecting Canadian concerns about reciprocity. The provisions of Chapter 17 aim at removing uncertainty in this area. Canada is explicitly committed not to use its review powers concerning the entry of security firms or other U.S. financial institutions in a manner inconsistent with the objectives of agreement.

### (3) United States commitments

As noted earlier, the 1978 International Banking Act grandfathered the existing multistate operations of Canadian banks in the United States. This Act, however, is subject to review after 10 years. Should the FTA become effective, the right of Canadian banks to retain their multistate branches will be grandfathered indefinitely (Article 1702).

Under the FTA, Canadian banks operating in the U.S. (and, consistent with the principle of national treatment, any other domestic or foreign bank) will be permitted to underwrite and deal in securities issued or guaranteed by the Canadian government or its political subdivisions. In keeping with the traditional separation of commercial and investment banking, such operations in the United States had been permitted only to security dealers unaffiliated with banks. Article 1702 of the agreement also ensures that Canadian financial institutions will be treated in the same way as their U.S. counterparts in respect of any future amendment to the Glass-Steagall Act or related laws.

#### b. Likely implications of the agreement on financial services

A substantial degree of freedom already exists in cross border activity in financial services between Canada and the United States. It is therefore difficult to gauge the impact of Chapter 17 of the FTA. While restrictions will be lifted on U.S. commercial bank subsidiaries in Canada with respect to asset growth and market share, these limitations have not been binding. Given current Canadian policies on ownership of large (Schedule A) banks, the exemption of U.S. companies from some aspects of the "10/25 rule" appear to have some relevance only in respect of insurance and trust companies. Much uncertainty over the regulatory framework for these companies exists, however, as corresponding reforms proposed in late-1986 have not yet been implemented, largely because of strong concerns in the Canadian Parliament regarding commercial-financial linkages, the attendant risk of non-arm's length transactions (self-dealing), and difficulties associated with coordination of federal and provincial regulations.

Whether U.S. financial institutions will, as a direct result of the financial services part of the FTA, gain an enduring competitive advantage vis-a-vis other foreign financial institutions in Canada is an open

question. In the securities area, Canadians have already essentially granted national treatment to all foreign security dealers. If FTA becomes effective, other countries will intensify efforts to obtain, for their financial institutions in areas other than securities, a treatment comparable to that accorded the United States under Chapter 17 of the FTA. And there is nothing in Chapter 17 that would prevent Canadian authorities from acceding to those requests. In effect, if recent developments in the securities area are an indication, it would appear that Canadian authorities are increasingly prepared to do so.

Owing to the principle of national treatment underlying U.S. banking law, U.S. commitments under the agreement do not accord Canadian financial institutions any particularly significant concession that is not also granted to other foreign financial institutions. For example, while the indefinite grandfathering of the Canadian banks' right to retain their multistate branches may help to reduce uncertainty, it promises no significant advantage not already available to banks from other countries. And while Canadian banks may in fact act as preferred brokers of Canadian government securities in the U.S., Article 1702 explicitly acknowledges the right of all banks, including bank holding companies and their affiliates, to underwrite and deal in Canadian government securities.

The implementation of the agreement on financial services will tend to make more obvious the differences in the regulatory structures of Canada and the United States and will, thus, heighten pressures for regulatory harmonization and coordination. Complexities may prove to be particularly acute with respect to the contrast between the remaining geographic and functional restrictions on banking activities in the United States, on the one hand, and the increasingly universal (in both geographic and functional terms) nature of banking activities in Canada, on the other.

The implicit emphasis of Chapter 17 on national treatment is in part a response to those differences in regulatory structures. This emphasis also suggests that Chapter 17 is, in itself, perhaps better characterized as formalizing an opening up of domestic financial services to foreign participation rather than as reforming the underlying national market structures themselves.

## 2. The creation of a single European market by 1992--financial services aspects

The European Community (EC) has set 1992 as a deadline for creating a barrier-free, single internal market in goods, services, labor, and capital. This effort began in 1958 when the EC was established by the Treaty of Rome, which had as its objective the creation of a common market through the elimination of customs duties and other obstacles to the free movement of goods, services, and capital. Significant progress toward this goal has been made in the goods market. Internal tariffs have in fact been abolished. However, a number of nontariff barriers

remain in place. Such nontariff barriers are particularly pronounced in the area of financial services, where conflicting rules and regulations effectively impede cross-border movements of financial institutions and transactions. Despite strenuous efforts by the Commission <sup>1/</sup> to break down these barriers, little progress was made in the 1970s. Growing concern among EC countries about how to proceed with the creation of the internal market mandated by the Treaty of Rome, combined with increasing external pressure due to the internationalization of financial markets, stimulated increased cooperation among EC governments in the 1980s. This was reflected in the commitment made by the member states at the 1985 Brussels summit to achieve a single internal market by 1992. Subsequently, the Commission was asked to prepare a detailed program and timetable of measures to accomplish such a goal. Accordingly, in May 1985, the Commission proposed a White Paper containing plans for 300 directives. The White Paper was endorsed at the Milan Summit in June 1985 and the process of turning the 300 proposed measures into binding legislation was facilitated by adoption of The Single European Act in 1987. In particular, Article 13 of the Single European Act introduced the December 31, 1992 deadline into the Treaty:

the Community shall adopt measures with the aim of progressive reestablishing the internal market over a period expiring on 31st December 1992, in accordance with the provisions of this Article... and without prejudice to the other provisions of this Treaty. The internal market shall comprise an area without internal frontiers in which the free movement of goods, persons, services and capital is insured in accordance with the provisions of this Treaty (Article 8a).

Moreover, Article 18 of the Single European Act introduced voting by qualified majority into many decisions taken by the Council with regard to the creation of an internal market. In part, this represented a reversal of the so-called "Luxembourg compromise" of 1966 that had established the veto right of each individual member country. However, unanimity is still required on such issues as the harmonization of tax policies. The other element that greatly facilitated the adoption of

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<sup>1/</sup> The European Commission consists of 17 members appointed for 4-year terms by mutual agreement among all member states. The commissioners are supported by 22 directorates general, each responsible for a given area of policy. The Commission initiates the law-making process by sending proposals to the Council. The Council is composed of appropriate ministers from each member country depending on the issue under discussion. The Council is ultimately responsible for the coordination of economic policies of member countries. Council decisions are transmitted to the European Parliament for opinion and, when required, for nonbinding comment to the Economic and Social Committee. If Parliament rejects a decision, the Council may nevertheless adopt the measure, but this can only be done on a unanimous vote.

the Commission's proposals was the introduction of the principle of mutual recognition. This principle empowers the Council to determine that, after a minimal level of cross-country regulatory harmonization has been achieved in a certain field, regulations of member countries are to be recognized as effectively equivalent.

a. The liberalization of capital movements

The integration of European financial markets is to be brought about by the removal of capital controls and the liberalization of restrictions on financial activities. The Treaty of Rome mandated that EC members liberalize capital movements to "the extent necessary to ensure proper functions of the Common Market." Members could, however, maintain or reintroduce capital controls--on a temporary basis--in case of financial markets disturbances or balance of payments difficulties. But significant differences in the treatment of capital flows remained in the 1960s, with many EC countries reintroducing capital restrictions during 1968-73. In 1983, the Commission informed the Council that it regarded the full liberalization of capital movements and the integration of financial services as preconditions for the achievement of the single internal market. In November 1987, the Commission presented to the Council a comprehensive proposal to liberalize capital movements which then served as the basis for the directive on liberalization of capital movements adopted on June 24, 1988. <sup>1/</sup>

Under that Directive all restrictions on the movement of capital between persons resident in member states were to be abolished. The most extensive liberalization applied to monetary or quasi-monetary operations, i.e., operations in current and deposit accounts and in securities and other instruments normally dealt on the money market. The Directive is to be implemented by July 1, 1990 by most member states. Spain, Greece, Ireland, and Portugal are authorized to maintain certain restrictions until the end of 1992, and Belgium and Luxembourg will be able to maintain their dual-exchange markets until 1992. The Directive contains specific safeguard clauses which allow member states to reintroduce, for a period not exceeding six months, restrictions on short-term capital movements in the event of disturbances to monetary and exchange rate policies. Such measures, however, must be authorized by the Commission. The Directive also allows for EC concerted action in response to external monetary or fiscal shocks, after consultations within the monetary committee and the committee of central bank governors on the initiative of the Commission or of any member state. Coordination of monetary and exchange rate policy are the main measures envisaged here, but regulation of short-term capital movements to and from third countries is explicitly allowed.

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<sup>1/</sup> A more extensive discussion of these measures as well as their macroeconomic implications has been prepared in the forthcoming Executive Board paper "The European Monetary System in the Context of the Integration of European Financial Markets."

The June 24 Directive also provides a timetable for provisions to counter the risk of tax avoidance or evasion that might be brought on by the full liberalization of capital movements in the face of continuing diversity of national tax systems. The Commission is scheduled to present proposals to the Council in this area by end-1988 and the Council is expected to respond by end-June 1989.

b. The liberalization of trade in financial services

The Commission's White Paper detailing the measures necessary to complete the internal market for financial services follow the two principles of mutual recognition and minimum harmonization. In the absence of a basic degree of harmonization, mutual recognition could result in business flowing disproportionately toward the least regulated environment. The principle of mutual recognition also implies that the supervision of financial institutions is carried out for the most part by the home country and not by the host country. Moreover, while Council directives carry the force of law, most directives allow for a time period deemed sufficient for member countries to revise their national legislation and implement necessary administrative changes. Thus far, efforts to liberalize financial activity has concentrated on banking, securities, and insurance.

The main vehicle for liberalizing banking activities has been the draft Second Banking Coordination Directive, expected to be adopted by the Council by June 30, 1989. This directive allows banks to conduct business anywhere in the EC, once they have been authorized to do so in their home country (the "single banking license"). They would operate abroad under home country rules even if these rules differed from host country rules. For example, an Italian bank would be able to branch into London without having to request permission or meet all regulatory requirements of the United Kingdom. It is expected, however, that capital adequacy and other essential regulations will be included in the rules and regulations that are to be harmonized. In fact, the capital standards recommendations of the Commission are parallel to those adopted in January 1988 by the Cooke Committee. In addition to traditional banking activities, the Second Banking Directive would also authorize banks to undertake securities underwriting and other securities operations either as principal or as agent. The Second Banking Directive is to be supplemented by directives or recommendations aimed at promoting common standards for accounting, deposit insurance, reorganization and liquidation of failing institutions, mortgage lending, and large exposures to single customers or groups of customers. The Commission will also propose common rules for limiting large exposures of banks to 15 percent of their own funds, restricting banks' holdings of individual industrial companies equity to 10 percent of their own funds and 50 percent in total, abolishing barriers to the free provision of mortgage credit throughout the Community, and harmonizing deposit insurance returns.

Aside from increasing competition among firms within the EC, the principle of mutual recognition and home country control could also increase competition among different national regulatory systems. National regulatory systems are expected to converge since regulations that restrict a country's own banks in the line of products they can offer would place those banks at a disadvantage. Home country control and mutual recognition would not, however, deprive national regulators of all discretion. It is anticipated that host countries would continue to oversee risk-taking in the securities markets, set standards for the control of banking liquidity, and regulate the execution of monetary policy. In addition, cross-border services would have to be provided in compliance with host country conduct-of-business rules. 1/

The Second Banking Directive contains an important clause, the so-called reciprocity clause, which allows the Commission to deny entry to banks from a non-EC country that fails to grant comparable treatment to banks from any of the 12 EC member states. The Council has recently underscored that this clause would not be applied to financial institutions already established within the EC. A distinction is made, however, within these institutions: whereas bank subsidiaries would operate under the "single license scheme", bank branches would remain under the jurisdiction of the authorities in each EC country where they operate. The Council has also indicated that the reciprocity clause would still apply to the sale of financial institutions already established in the EC to a non-EC Bank. Even with its narrower application, this clause could have wide-ranging implications if it worked to restrict the number of non-European banks operating in Europe. As its supporters argue, however, it could contribute to accelerate liberalization in national financial markets outside the EC. The precise interpretation of the clause remains to be worked out. 2/

EC countries with international financial centers or foreign banks, such as the United Kingdom, the Federal Republic of Germany, Netherlands, and Luxembourg, have expressed reservations concerning the reciprocity clause, while other member states, e.g., France, Belgium, and some southern European states, support strict reciprocity

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1/ Conduct-of-business rules are notoriously difficult to harmonize because they are grounded in ideosyncratic legal systems. The Second Banking Directive states that compliance with host country laws and rules governing the conduct of business will be required provided that such laws are "justified on the grounds of the public good." The European Court of Justice will likely be busy deciding on cases where such justification is questioned.

2/ The reciprocity rule could, for example, be interpreted narrowly as requiring national treatment for EC firms operating abroad, i.e., EC firms are to be treated the same as domestic firms. Or more broadly, it could require that EC firms abroad should enjoy the same rights as foreign firms in the community.

requirements. The United States and Japan have publicly protested the proposed rule. In addition, some questions have been raised about the consistency of a reciprocity requirement with the obligations of EC member states under the General Agreement on Trade and Tariffs.

In the area of securities markets, growing competition from abroad has provided an impetus for deregulation in the EC. The Commission is seeking to further open up cross-border movement of securities services within the community, again on the basis of mutual recognition of national supervisory standards, combined with home-country control of financial institutions. In the White Paper, the Commission put forward as a goal the construction of a united European securities market system with different EC stock exchanges as components. This is to be achieved essentially by linking European exchange and coordinating clearing and settlement systems. To this end, the Council has put forth a directive on the mutual recognition of listing information on stock exchanges to be implemented by the beginning of 1990 (by 1991 for Spain and 1992 for Portugal). Thus, a company listing on the Paris Bourse would automatically qualify for listing on other EEC exchanges. In addition, the Council has forwarded a directive on the marketing of collective investment instruments, such as mutual funds or unit trusts. According to this directive, which is to be implemented by October 1989 (by April 1992 for Greece and Portugal), mutual funds authorized by any member state could be marketed without additional authorization in other member states once these funds have complied with certain minimum information requirements.

The Commission has also published a draft directive establishing common requirements for prospectuses for the sale of securities to the public. The Commission initially had extended this requirement to include Eurosecurities, i.e., securities issued in the Euromarkets, but has recently changed this requirement to exclude issuers that raise funds denominated in currencies other than that of the country of its head office, thus excluding Eurosecurities from the directive. In addition, the Commission has issued a draft Directive on transactions involving large stakes in listed companies and has proposed standardized rules on the regulation of insider trading. Finally, the Commission has sought to regulate the provision of investment-related services, such as portfolio management or brokerage.

In the area of insurance, the Commission's White Paper proposed to allow insurance companies from one member state to insure large industrial or commercial risks within other member states. As regards mergers and acquisitions, the Commission has sought to establish rules for the regulation of takeover bids and transactions in large groups of shares. This could prove particularly significant given that, with the exception of the United Kingdom, France, and the Federal Republic of Germany, EC member states do not have well-defined antitrust rules to control mergers or acquisitions. The Commission intends to examine each merger and acquisition proposal that falls under the Directorate General

for Competition Policy to see whether it violates the EC competition law.

These proposed reductions in the restrictions of the movement of financial services and capital within the EC are likely to have substantial structural effects. Significant gains could arise from increased competition and better allocative efficiency among EC countries when capital controls are eliminated. As already noted, the removal of capital controls is well advanced and scheduled to be completed before final implementation of the single internal market program. The proposed removal of restrictions on financial activity will likely lead to less segmented domestic financial markets because of increased competition and the introduction of new financial products. In particular, the boundary between banking and securities markets is likely to be further blurred through regulatory changes, securitization of bank assets, and increased participation of foreign banks in national capital markets. Cross-border expansion of financial services could be relatively greater in retail financial markets where price differences between national markets is larger. Potential economies of scale and scope in EC-wide expansion could provide additional benefits.

The expansion abroad could take several forms. The provision of financial services across borders without establishing new physical presences can be expected to play an important role in wholesale markets. Merger and acquisition activities in both wholesale and retail markets may intensify appreciably. However, the establishment of new retail branch networks is likely to be limited by the existing extensive branch banking systems in most EC countries. And expansion by way of acquisition may be dampened by the ownership structure of financial institutions in some countries, e.g., Italy, France, and the Federal Republic of Germany, where many mid-sized banks are owned by federal or provincial governments.

The increased presence of foreign institutions in domestic markets will contribute to the spread of financial innovation and increase the scope for currency substitution. Moreover, the presence of foreign banks with access to the central bank clearing system in the banks' home country will greatly facilitate clearance and settlement of transactions denominated in the home currency of the foreign bank.

Finally, the recent pattern of more rapid expansion of activity in securities markets, as compared with banking markets, may be accentuated since access to primary securities markets for many investors will be facilitated by increased cross-border presence of securities firms from countries with well-developed securities markets.



Glossary of Equity Market Terms

Amex: American Stock Exchange, Inc.

Broker: (1) A person paid a fee or commission for acting as an agent in making contracts, sales, or purchases; (2) when used as floor broker, it means a person who actually executes someone else's trading orders on the trading floor of an exchange; and (3) when used to mean account executive, it means the person who deals with customers and their orders in commission house offices.

CBOE: Chicago Board Options Exchange, Inc.

CBT: Chicago Board of Trade.

Cash Settlement: The settlement provision on some option and futures contracts which does not require delivery of the underlying instrument. For options, the difference between the settlement price on the underlying and the option's exercise price is paid to the option holder at exercise. For futures contracts, the exchange establishes a settlement price on the final day of trading and all remaining open positions are marked to market at that price.

Clearing Firm: Clearing broker-dealers process transactions and maintaining custody of funds and securities on behalf of other broker-dealers. In addition to holding funds and securities, clearing firms are contractually responsible for the settlement of the securities transactions of the other broker-dealer and the maintenance of certain records relating to those transactions.

Commodity Futures Trading Commission CFTC: The Federal agency which oversees stock index futures trading in the United States.

Counterparty: The other party to a contract. For exchange-traded futures and options contracts, the counterparty is usually the exchange itself (an exception is LIFFE, where the broker plays this role). For OTC instruments, the counterparty is generally a financial intermediary such as a major money-center bank, an investment or merchant bank or a securities company.

Counterparty Risk: The risk that the other party to a contract will not fulfill the terms of the contract. This risk is avoided through the clearing house system for exchange-traded instruments; however, it is a relevant source of risk for OTC instruments such as forward agreements, interest-rate caps, floors and collars, and interest rate or currency swaps.

Credit Risk: Risk associated with the possibility that the other party to a financial contract will be unwilling or unable to fulfill the terms of the contract. Credit risk is distinguished from the risks associated with changes in prices, interest rates, or exchange rates (see also Counterparty Risk).

DOT: The Designated Order Turnaround system (also known as Super Dot) was developed by the NYSE to facilitate routing of orders from NYSE members' offices to the specialist in the particular stock on the floor of the New York Stock Exchange.

FEDWIRE: The Federal Reserve System wire transfer facility provides a system for transferring funds and U.S. government securities between all 12 Federal Reserve Banks, their 24 branches, the Federal Reserve Board office in Washington, D.C., U.S. Treasury offices in Washington, D.C. and Chicago, and the Washington, D.C. office of the Commodity Credit Corporation.

Futures Contract: An exchange-traded contract generally calling for delivery of a specified amount of a particular grade of commodity or financial instrument at a fixed date in the future. Contracts are highly standardized and traders need only agree on the price and number of contracts traded. Traders' positions are maintained at the exchange's clearing house, which becomes a counterparty to each trader once the trade has been cleared at the end of each day's trading session. Members holding positions at the clearing house must post margin which is marked to market daily. Most trades are unwound before delivery. The interposition of the clearing house facilitates the unwinding since a trader need not find his original counterparty, but may arrange an offsetting position with any trader on the exchange.

ISE: International Stock Exchange of the United Kingdom and the Republic of Ireland Limited.

Long Position: (1) In the futures market, the position of a trader on the buying side of an open futures contract; (2) in the options market, the position of a trader who has purchased an option regardless of whether it is a put or a call. A participant with a long call-option position can profit from a rise in the price of the underlying instrument while a trader with a long put option can profit from a fall in the price of the underlying instrument.

MMI: The Major Market Index is a futures contract that is based on a price-weighted index comprised of 20 highly capitalized U.S. stocks traded on the NYSE. MMI is also the symbol for the futures contract on the MMI traded on the CBT.

Margin (Futures): Funds or collateral posted as a good-faith performance guarantee. Futures and options exchanges often require traders to post initial margin when they enter into new contracts. Margin accounts are debited or credited to reflect changes in the current market prices on the positions held. Members must replenish the margin account if margin falls below a minimum. In a similar fashion, customers must post margin on positions held for them at the exchange clearing house by member firms.

Margin (Securities and Options): Brokers-dealers extend credit to customers to purchase securities or options in margin accounts. Margin is the equity in the margin account. Generally, equity refers to the net market value of the securities positions increased by any funds in the account or reduced by the amount extended to the customer. When the customer purchases securities in a margin account, the margin provides additional collateral for the extension of credit by the broker-dealer. If the customer sells securities short or writes uncovered options, the margin protects the broker-dealer against losses related to customer default due to adverse price movements in those positions. Broker-dealers are often required to obtain certain minimum amounts of margin from their customers.

Marking to Market: The process of recalculating the exposure in a trading position in securities, option contracts, or futures contracts. In exchange-traded contracts, the exchange clearing house marks members' positions to market each day using closing market prices. Members must maintain a certain minimum level of margin at the exchange clearing house and must post additional margin if the marking-to-market process reduces margin below the minimum.

Market Maker: The term market maker generally means any dealer who attempts to provide market liquidity (i.e., the ability to convert a security into cash at a price near the last transactions' price in the absence of new information). This may involve the market maker acting either as a broker (matching buyers to sellers) or being willing to buy and sell securities for his own account.

NYSE: New York Stock Exchange, Inc.

NASDAQ: The National Association of Securities Dealers (NASD) Automated Quotations system, owned and operated by the NASD, is a computerized communications facility that provides broker-dealers with price quotations for securities that are traded over-the-counter.

OCC: The Options Clearing Corporation issues, clears and settles all standardized options trades in the United States.

Over-the-Counter (OTC) Market: Trading in financial instruments transacted off organized exchanges. Generally the parties must negotiate all details of the transactions, or agree to certain simplifying market conventions. In most cases, OTC market transactions are negotiated over the telephone. OTC trading includes transactions among market-makers and between market-makers and their customers. Firms mutually determine their trading partners on a bilateral basis.

Options: The contractual right, but not the obligation, to buy or sell a specified amount of a given financial instrument at a fixed price before or at a designated future date. A call option confers on the holder the right to buy the financial instrument. A put option involves the right to sell the financial instrument.

Portfolio Insurance: Portfolio insurance is a hedging strategy designed to control market risk for a broad based portfolio by selling and buying stock index derivative products to protect against market loss at the cost of some limitations on the opportunities for appreciation. Typically, portfolio insurance seeks to assure a minimum value for a portfolio over a specified time period. To achieve this, stock index futures are sold when the value of the portfolio decreases a certain percentage, and are repurchased when the portfolio regains this loss.

Price Limits: The maximum price movement from the previous day's settlement price permitted for a contract in one trading session.

Program Trading: Program trading is the trading of a whole portfolio or basket of stocks. Computers are used extensively in this process to optimize the composition of the stocks and to assist in the execution of the trades.

SEAQ: The Stock Exchange Automated Quotations is the electronic communications facility of the ISE. SEAQ collects the quotes of competing U.K. makers and disseminates them over the ISE's TOPIC System. (The TOPIC System is the ISE's computer terminal network that provides on-line information service to users in the U.K.)

SEAQ International: The Stock Exchange Automated Quotations International is the electronic communications facility of the ISE covering international equities.

SOES: The Small Order Execution System is used by the NASD for the automatic execution of customer agency trades. The system also automatically reports trades to NASDAQ and sends transaction details to the NSCC for comparison and settlement.

S&P 500 Index: An index representing the value of 500 widely held common stocks on the New York Stock Exchange.

Settlement Risk: The possibility that operational difficulties interrupt delivery of funds even where the counterparty is able to perform.

Short Position: (1) In the futures market, the position of a trader on the selling side of an open futures contract; and (2) in the options market, the position of a trader who has sold or written an option regardless of whether it is a put or a call. The writer's maximum potential profit is the premium received.

Specialist: A specialist is an exchange member whose chief obligation is to maintain fair and orderly markets in his assigned securities or specialty stocks. In fulfilling this obligation in the United States, the specialist functions as both a broker and a dealer. As a broker, the specialist acts on behalf of other floor brokers who

entrust to him stop or limit orders that cannot be immediately executed because the execution prices specified on the orders have not been reached. These orders are recorded in the specialist's "book" and are executed when the market reaches the appropriate price levels. As a dealer, the specialist facilitates orderly price movements between successive trades by buying stock for his own account when sellers outnumber buyers and selling stock from the account when buyers outnumber sellers. In Japan, the specialist acts only as broker.

Stock Index Arbitrage: Index arbitrage is the simultaneous purchase (or sales) of stocks that comprise or closely track a stock index and the sale (or purchase) of either futures or options on that particular index. Index arbitrageurs take advantage of spreads that periodically develop between equities, futures, and options markets by buying in the lowest-priced market and selling in the highest-priced market.

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Table 1. Selected Economic Indicators, 1982-88

(In billions of U.S. dollars; or in percent)

	1982	1983	1984	1985	1986	1987	Est. 1988
Total of identified current							
account deficits <u>1/</u>	176	158	196	200	250	244	241
Industrial countries	52	64	123	136	168	190	184
Of which:							
Seven major	27	51	110	121	146	170	162
Developing countries	124	94	72	64	82	54	57
Total of identified fiscal							
deficits for seven major							
industrial countries							
Central government	308	378	370	385	409	380	366
General government	262	288	244	256	303	263	255
Overall current account							
balances of developing							
countries <u>2/</u>	-86.4	-63.1	-33.3	-24.3	-40.7	0.3	-17.6
Reserve accumulation of							
developing countries							
(accumulation +)	-39.6	3.8	14.5	18.2	4.1	56.1	14.9
Growth rate in value of							
world trade	-6.3	-1.9	6.1	0.9	9.6	16.4	12.6
Growth rate of real GNP							
of industrial countries	-0.3	2.8	5.0	3.3	2.7	3.3	3.9
Inflation rate of							
industrial countries							
(GNP deflators)	7.2	5.0	4.2	3.7	3.4	2.9	2.9
Interest rates (six-month							
Eurodollar deposit							
rate)	13.6	9.9	11.3	8.6	6.8	7.3	8.2

Sources: International Monetary Fund, World Economic Outlook, October 1988; and Fund staff estimates.

1/ Sum of all current account deficits, which includes official transfers.

2/ Sum of all current account deficits and surpluses, which includes official transfers.



Table 2. Major Industrial Countries: Interest  
Rate Volatility, 1/ 1983-Third Quarter 1988

	1983	1984	1985	1986	1987	First Three Quarters 1988
Long-term interest rate						
United States	0.025	0.034	0.031	0.046	0.048	0.035
United Kingdom	0.029	0.032	0.021	0.049	0.045	0.019
Germany, Fed.						
Rep. of	0.025	0.017	0.030	0.037	0.037	0.032
France	0.016	0.024	0.013	0.052	0.035	0.029
Japan	0.027	0.035	0.064	0.083	0.143	0.073
Short-term interest rate						
United States	0.035	0.055	0.044	0.041	0.057	0.053
United Kingdom	0.029	0.070	0.081	0.061	0.055	0.078
Germany, Fed.						
Rep. of	0.050	0.029	0.045	0.022	0.087	0.102
France	0.020	0.020	0.017	0.040	0.040	0.046
Japan	0.017	0.014	0.055	0.063	0.029	0.018

Source: International Monetary Fund, World Economic Outlook.

1/ Volatility is defined as the standard proportionate deviation of the monthly changes in interest rates over the period indicated.

Table 3. Long-term Interest Rate Differentials  
Between the United States and Other Major Countries 1/

(In percent per annum)

Periods	Japan	Germany	France	United Kingdom
1986				
First quarter	3.33	-1.64	-0.97	-1.64
Second quarter	2.68	1.87	-0.37	-1.39
Third quarter	2.41	1.51	-0.46	-2.28
Fourth quarter	2.53	1.26	-1.24	-3.44
1987				
First quarter	3.22	1.49	-1.54	-2.50
Second quarter	4.77	2.84	-0.58	-0.60
Third quarter	4.05	2.88	-0.95	-0.83
Fourth quarter	4.65	2.96	-1.10	-0.43
1988				
First quarter	4.37	2.58	-0.99	-0.94
Second quarter	4.71	2.90	-0.21	-0.33
Third quarter	4.50 <u>2/</u>	2.70	0.05	-0.33 <u>2/</u>

Sources: International Monetary Fund, International Financial Statistics.

1/ Differentials shown should be treated as indicative because they conceal inter-country differences in the maturity structure of long-term rates. Thus, for instance, the U.S. long-term rate is the one applicable for the 10-year Federal Government bonds, while the German rate is that applicable for all bonds of the public authorities with maturities over three years.

2/ Average of July and August.

Table 4. United States, Japan, and the Federal Republic of Germany:  
Current Account Financing, 1983-First Half 1988

(In billions of U.S. dollars, except where indicated)

	1983	1984	1985	1986	1987	First Half 1988
<b>United States</b>						
Current account	-46.3	-107.1	-115.2	-138.8	-154.0	-66.4
Capital account, net	42.2	107.9	121.0	105.1	97.0	33.7
Long-term	-1.7	38.5	73.3	72.6	28.6	35.3
Short-term, nonbanks <sup>1/</sup>	14.9	41.8	23.4	5.6	22.7	-4.4
Short-term, banks	29.0	27.5	24.3	26.8	45.7	2.8
Of which:						
Loans, net	20.4	22.7	39.7	19.8	47.3	14.7
Assets	-29.9	-11.1	-1.3	-60.0	-40.5	3.1
Liabilities	50.3	33.8	41.0	79.8	87.8	11.6
Securities, net	10.1	30.8	63.9	70.5	30.1	20.7
Assets	-6.8	-4.8	-7.5	-4.3	-4.5	-2.9
Liabilities	16.9	35.6	71.4	74.8	34.6	23.6
Counterpart items	-1.6	-2.2	4.4	5.4	6.6	-3.4
Net official transactions <sup>2/</sup>	-5.7	-1.4	10.2	-28.4	-50.4	-36.1
As percent of current balance	12.3	1.3	-8.9	20.5	32.7	54.4
<b>Japan</b>						
Current account	20.8	35.0	49.2	85.8	87.0	37.0
Capital account, net	-19.6	-33.2	-49.0	-70.1	-47.8	-30.8
Long-term	-17.7	-49.7	-64.5	-131.5	-136.5	-51.7
Of which:						
Loans, net	-8.4	-12.0	-10.5	-9.3	-16.3	-6.7
Assets	-8.4	-11.9	-10.4	-9.3	-16.2	-6.6
Liabilities	--	-0.1	-0.1	--	-0.1	-0.1
Securities, net	-7.5	-23.6	-43.0	-101.5	-93.9	-24.3
Assets	-16.0	-30.8	-59.8	-102.0	-87.8	-37.8
Liabilities	8.5	7.2	16.8	0.5	-6.1	13.5
Short-term, nonbanks <sup>1/</sup>	2.1	-0.6	3.1	0.8	20.0	3.7
Short-term, banks	-3.9	17.0	12.5	60.5	68.8	17.2
Net official transactions <sup>2/</sup>	1.2	1.8	0.2	15.7	39.2	6.2
As percent of current balance	5.8	5.1	0.4	18.3	45.1	16.8
<b>Germany, Fed. Rep. of</b>						
Current account	5.4	9.8	16.6	39.8	45.4	23.2
Capital account, net	-4.8	-10.3	-15.8	-30.6	-15.9	-30.3
Long-term	-2.6	-7.0	-4.6	13.1	-10.1	-29.9
Of which:						
Loans, net	-1.2	-2.8	-1.6	0.8	-6.9	-3.0
Assets	-5.4	-5.0	-4.4	-4.0	-7.9	-2.1
Liabilities	4.2	2.2	2.8	4.8	1.0	-0.9
Securities, net	1.2	0.6	2.3	20.6	3.6	-20.2
Assets	-3.8	-5.5	-10.7	-8.8	-10.7	-19.9
Liabilities	5.0	6.1	13.0	29.4	14.3	-0.3
Short-term, nonbanks <sup>1/</sup>	-3.0	-3.4	-1.9	-20.5	-3.1	-5.3
Short-term, banks	0.7	--	-9.4	-23.2	-2.7	4.9
Net official transactions <sup>2/</sup>	0.6	-0.5	0.8	9.2	29.5	-7.1
As percent of current balance	11.1	-5.1	4.8	23.1	65.0	-30.6

Sources: International Monetary Fund, World Economic Outlook, October 1988; U.S. Department of Commerce, U.S. Survey of Current Business; Bank of Japan, Balance of Payments Monthly; Deutsche Bundesbank, Statistische Beihefte zu den Monatsberichten der Deutschen Bundesbank, Reihe 3, Zahlungsbilanzstatistik.

<sup>1/</sup> Private sector only; includes errors and omissions.

<sup>2/</sup> Includes both reserves of monetary authorities and other short-term transactions of public authorities. Positive sign indicates increase in assets.

Table 5. Japan: Geographic Distribution of Long-Term Capital Flows, 1982-87 <sup>1/</sup>

(In billions of U.S. dollars)

	1982	1983	1984	1985	1986	1987
<b>Total assets</b>						
World	-27.4	-32.5	-56.8	-81.8	-132.1	-132.8
OECD	-15.0	-19.8	-40.4	-65.3	-115.1	-109.8
United States	-3.6	-7.1	-15.4	-35.4	-59.2	-50.6
European Community	-6.3	-9.2	-14.3	-21.4	-46.1	-50.1
United Kingdom	-2.4	-2.6	-4.6	-7.0	-14.9	-11.7
International organizations	-2.5	-3.4	-4.5	-4.0	-2.0	-3.7
<b>Loans</b>						
World	-7.9	-8.4	-11.9	-10.4	-9.3	-16.2
OECD	-2.0	-2.6	-5.4	-3.6	-4.0	-7.3
United States	-0.1	-0.3	-0.4	-0.7	-0.6	-1.5
European Community	-0.8	-1.5	-1.6	-0.7	-1.1	-2.2
United Kingdom	-0.2	-0.2	-0.1	-0.1	-0.1	-0.7
International organizations	-1.1	-1.1	-1.3	-0.9	0.7	-2.0
<b>Securities</b>						
World	-9.7	-16.0	-30.8	-59.8	-102.0	-87.8
OECD	-8.2	-14.0	-27.8	-55.2	-96.7	-83.1
United States	-0.6	-5.1	-11.4	-31.6	-49.4	-37.4
European Community	-4.5	-6.6	-10.9	-18.5	-40.6	-42.1
United Kingdom	-2.0	-2.2	-3.8	-6.2	-12.8	-8.7
International organizations	-0.9	-1.3	-1.5	-2.2	-1.4	0.1
<b>Total liabilities</b>						
World	12.5	14.8	7.1	17.3	0.6	-3.7
OECD	10.2	13.5	6.5	17.6	5.6	3.5
United States	1.9	1.5	0.6	2.2	-6.5	-10.5
European Community	5.0	6.4	3.4	11.9	11.7	15.8
United Kingdom	5.0	6.0	4.2	11.6	13.5	20.2
International organizations	--	-0.1	--	--	-0.1	-0.1
<b>Loans</b>						
World	-0.2	--	-0.1	-0.1	--	-0.1
OECD	-0.1	-0.1	-0.1	-0.1	0.1	-0.1
United States	-0.1	--	--	--	-0.1	-0.2
European Community	--	--	--	-0.1	0.1	0.1
United Kingdom	--	--	-0.1	-0.1	0.1	0.1
International organizations	--	--	--	--	--	--
<b>Securities</b>						
World	7.6	8.5	7.2	16.8	0.5	-6.1
OECD	5.8	7.4	6.6	17.0	5.4	3.1
United States	1.4	1.2	0.7	1.7	-6.5	-10.8
European Community	4.5	4.9	3.4	11.8	11.6	15.7
United Kingdom	4.4	4.6	4.3	11.6	13.4	20.2
International organizations	--	-0.1	--	--	-0.1	-0.1

Source: Bank of Japan, Balance of Payments Monthly.

<sup>1/</sup> A negative value indicates an outflow of capital (an increase in assets or a decrease in liabilities). A positive value indicates an inflow of capital (a decrease in assets or an increase in liabilities).

Table 6. United States: Capital Flows 1/ 2/  
(In billions of U.S. dollars)

	1982	1983	1984	1985	1986	1987
Total assets						
World	-116.2	-48.6	-19.2	-28.8	98.3	-85.1
European Community	-39.2	-7.0	-13.5	-28.9	-43.7	-30.7
United Kingdom	-28.0	-2.8	-13.6	-16.2	-21.9	-13.8
Japan	-2.3	-3.7	1.0	-4.3	-26.8	-23.8
International organizations	-2.1	-2.1	-1.2	-0.4	-1.1	-1.6
Loans						
World	-111.1	-29.9	-11.1	-1.3	-60.0	-40.5
European Community	-37.8	-0.9	-7.4	-6.2	-10.8	2.9
United Kingdom	-26.1	2.5	-8.0	-4.5	-3.4	5.8
Japan	-1.6	-1.8	-0.7	-2.7	-32.5	-27.8
International organizations	-0.1	-0.2	-0.7	-0.3	-2.0	-1.7
Securities						
World	-8.0	-6.8	-4.8	-7.5	-4.3	-4.5
European Community	-2.7	-5.4	-7.1	-10.1	-18.8	-12.0
United Kingdom	-1.6	-3.6	-5.5	-5.9	-14.6	-11.7
Japan	-1.1	-0.5	1.4	-0.6	7.9	6.2
International organizations	-1.0	-0.7	--	0.9	1.0	0.7
Total liabilities						
World	90.2	79.0	99.5	131.1	185.7	166.5
European Community	...	...	...	...	...	...
United Kingdom	...	...	...	...	...	...
Japan	...	...	...	...	...	...
International organizations	...	...	...	...	...	...
Loans						
World	65.6	50.3	33.8	41.0	79.8	87.8
European Community	...	...	...	...	...	...
United Kingdom	...	...	...	...	...	...
Japan	...	...	...	...	...	...
International organizations	...	...	...	...	...	...
Securities						
World	13.1	16.9	35.6	71.4	74.8	34.6
European Community	...	...	...	...	...	...
United Kingdom	...	...	...	...	...	...
Japan	...	...	...	...	...	...
International organizations	...	...	...	...	...	...

Source: U.S. Department of Commerce, U.S. Survey of Current Business.

1/ A negative value indicates an outflow of capital (an increase in assets or a decrease in liabilities). A positive value indicates an inflow of capital (a decrease in assets or an increase in liabilities).

2/ Data include both short-term and long-term capital flows.

Table 7. International Lending, 1981-First Half 1988

(In billions of U.S. dollars; or in percent)

	1981	1982	1983	1984	1985	1986	1987	First Half 1987	First Half 1988
<b>International lending through banks and bond markets</b>									
Total <u>1</u> , <u>2</u> /									
IMF-based	433	235	196	244	353	613	857	391	276
BIS-based (gross) <u>3</u> /	294	230	152	186	311	604	674	303	209
BIS-based (net of redepositing) <u>3</u> /	194	144	131	152	182	267	341	187	142
Bond issues (net) <u>4</u> /	29	49	46	62	77	87	56	37	47
Change in bank claims <u>1</u> /, <u>2</u> /									
IMF-based	404	186	150	182	276	526	801	354	229
Growth rate	20	8	6	7	10	16	20	...	...
BIS-based (gross)	265	181	106	124	234	517	618	266	162
Growth rate	20	12	7	6	11	20	19	...	...
BIS-based (net of redepositing)	165	95	85	90	105	180	285	150	95
Growth rate	20	10	8	7	8	12	16	...	...
<b>International lending to industrial countries</b>									
Total									
IMF-based	244	162	132	178	271	494	604	290	246
BIS-based (gross) <u>3</u> /	221	180	106	147	248	482	509	237	182
BIS-based (net) <u>3</u> /	121	94	85	113	119	145	176	121	115
Bond issues (net) <u>4</u> /	22	39	36	51	63	77	48	32	41
Change in bank claims <u>1</u> /									
IMF-based	222	123	96	127	208	417	556	258	205
Growth rate	18	9	6	8	13	21	22	...	...
BIS-based (gross)	199	141	70	96	185	405	461	205	141
Growth rate	15	9	4	5	9	16	14	...	...
BIS-based (net)	99	55	49	62	56	68	128	89	74
Growth rate	12	6	5	5	4	5	7	...	...
<b>International lending to developing countries <u>5</u>/</b>									
Total									
IMF-based	89	54	35	17	10	-1	20	8	-9
BIS-based <u>3</u> /	55	37	28	15	18	-1	7	6	-7
Bond issues (net) <u>3</u> /, <u>4</u> /	2	3	2	3	4	2	2	1	2
Change in bank claims <u>1</u> /									
IMF-based	87	51	33	14	6	-3	18	7	-11
Growth rate	22	11	6	2	1	-1	3	...	...
BIS-based	53	34	26	12	14	-3	5	5	-9
Growth rate	17	10	7	2	3	-1	1	...	...
<b>Memorandum items</b>									
Total gross bond issues	52	76	77	110	168	227	181	102	119
Of which:									
Industrial countries	39	60	60	91	137	201	155	89	102
Developing countries <u>5</u> /	4	5	3	5	9	5	5	2	4

Sources: Bank for International Settlements (BIS); Organization for Economic Cooperation and Development; International Monetary Fund, International Financial Statistics; and Fund staff estimates.

1/ IMF-based data on cross-border changes in bank claims are derived from the Fund's international banking statistics (IBS) (cross-border interbank accounts by residence of borrowing bank plus international bank credits to nonbanks by residence of borrower), excluding changes attributed to exchange rate movements. BIS-based data are derived from quarterly statistics contained in the BIS's International Banking Developments; the figures shown are adjusted for the effects of exchange rate movements. Differences between the IMF data and the BIS data are mainly accounted for by the different coverages. The BIS data are derived from geographical analyses provided by banks in the BIS reporting area. The IMF data derive cross-border interbank positions from the regular money and banking data supplied by member countries, while the IMF analysis of transactions with nonbanks is based on data from geographical breakdowns provided by the BIS reporting countries and additional banking centers. Neither the IBS nor the BIS series are fully comparable over time because of expansion of coverage.

2/ Total changes in bank claims includes offshore centers, international organizations, and other non-Fund members as well as industrial and developing countries.

3/ Estimates based on BIS and OECD data.

4/ Net of redemption and repurchases, and of double counting, that is, bonds taken up by the reporting banks to the extent that they are included in the banking statistics as claims on nonresidents and bonds issued by the reporting banks mainly for underpinning their international lending activity.

5/ Excludes the seven offshore centers (The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore).

Table 8. Changes in Cross-Border Bank Claims and Liabilities, 1982-First Half 1988 <sup>1/</sup>

(In billions of U.S. dollars)

	1982	1983	1984	1985	1986	1987	First Half 1987	First Half 1988
Total change in claims <sup>2/</sup>	186	150	182	276	526	801	354	229
Industrial countries	123	96	127	208	417	556	258	205
Of which:								
United States	61	40	36	55	94	110	27	21
Japan	...	10	20	40	154	223	111	97
Developing countries <sup>3/</sup>	51	33	14	6	-3	18	7	-11
Offshore centers <sup>4/</sup>	25	12	28	28	86	168	64	34
Other transactors <sup>5/</sup>	-1	8	6	11	-7	20	8	9
Unallocated (nonbanks) <sup>6/</sup>	-12	1	7	23	33	38	17	-8
<u>Memorandum items</u>								
Capital importing developing countries <sup>3/</sup> , <sup>7/</sup>	...	29	15	8	-2	17	6	-12
Non-oil developing countries <sup>3/</sup> , <sup>8/</sup>	41	26	16	5	-2	18	6	-13
Fifteen heavily indebted countries	...	11	5	-3	-2	2	2	-9
Total change in liabilities <sup>9/</sup>	188	178	184	300	596	744	310	169
Industrial countries	150	96	113	194	432	493	224	122
Of which:								
United States	107	35	7	22	82	56	5	5
Japan	...	15	12	42	114	148	64	67
Developing countries <sup>3/</sup>	4	23	23	24	-1	-48	29	18
Offshore centers <sup>4/</sup>	25	34	24	46	130	142	44	39
Other transactors <sup>5/</sup>	4	10	2	9	-7	17	4	3
Unallocated (nonbanks) <sup>6/</sup>	6	15	22	28	42	44	9	-11
<u>Memorandum items</u>								
Capital importing developing countries <sup>3/</sup> , <sup>7/</sup>	...	29	25	21	12	36	21	12
Non-oil developing countries <sup>3/</sup> , <sup>8/</sup>	17	29	22	18	22	36	23	12
Fifteen heavily indebted countries	...	13	15	5	-5	9	4	3
Change in total net claims <sup>10/</sup>	-2	-28	-2	-25	-70	58	44	59
Industrial countries	-26	--	14	13	-15	64	34	83
Of which:								
United States	-46	5	29	32	11	54	22	16
Japan	...	-5	8	-2	40	76	47	30
Developing countries <sup>3/</sup>	47	10	-9	-17	-2	-29	-22	-28
Offshore centers <sup>4/</sup>	--	-22	5	-17	-45	26	20	-5
Other transactors <sup>5/</sup>	-5	-2	4	2	1	3	4	7
Unallocated (nonbanks)	-18	-14	-15	-5	-9	-5	8	3
<u>Memorandum items</u>								
Capital importing developing countries <sup>3/</sup> , <sup>7/</sup>	...	--	-10	-13	-11	-18	-15	-24
Non-oil developing countries <sup>3/</sup> , <sup>8/</sup>	24	-2	-6	-13	-18	-18	-17	-24
Fifteen heavily indebted countries	...	-1	-9	-8	3	-7	-2	-12

Sources: International Monetary Fund, International Financial Statistics (IFS); and Fund staff estimates.

<sup>1/</sup> Data on changes in bank claims and liabilities are derived from stock data on the reporting countries' liabilities and assets, excluding changes attributed to exchange rate movements.

<sup>2/</sup> As measured by differences in the outstanding liabilities of borrowing countries defined as cross-border interbank accounts by residence of borrowing bank plus international bank credits to nonbanks by residence of borrower.

<sup>3/</sup> Excluding offshore centers.

<sup>4/</sup> Consisting of The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore.

<sup>5/</sup> Transactors included in IFS measures for the world, to enhance global symmetry, but excluded from IFS measures for "All Countries." The data comprise changes in identified cross-border bank accounts of centrally planned economies (excluding Fund members), and of international organizations.

<sup>6/</sup> Calculated as the difference between the amount that countries report as their banks' positions with nonresident nonbanks in their monetary statistics and the amounts that banks in major financial centers report as their positions with nonbanks in each country.

<sup>7/</sup> Consisting of all developing countries except the eight Middle Eastern oil exporters (the Islamic Republic of Iran, Iraq, Kuwait, the Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) for which external debt statistics are not available or are small in relation to external assets.

<sup>8/</sup> Consisting of all developing countries except the eight Middle Eastern oil exporters (listed in footnote 7 above), Algeria, Indonesia, Nigeria, and Venezuela.

<sup>9/</sup> As measured by differences in the outstanding assets of depositing countries, defined as cross-border interbank accounts by residence of lending bank plus international bank deposits of nonbanks by residence of depositor.

<sup>10/</sup> Difference between changes in bank claims and liabilities.

Table 9. Change in Interbank Claims and Liabilities, 1982-First Half 1988 <sup>1/</sup>

(In billions of U.S. dollars)

	1982	1983	1984	1985	1986	1987	First Half 1987	First Half 1988
Total change in claims <sup>2/</sup>	105	111	154	218	451	672	292	214
Industrial countries	73	80	118	184	378	474	219	176
Of which:								
United States	46	39	25	33	69	84	10	14
Japan	...	8	22	40	148	192	97	93
Developing countries <sup>3/</sup>	16	15	5	7	2	15	4	-4
Offshore centers <sup>4/</sup>	18	10	26	19	81	167	63	31
Other transactors <sup>5/</sup>	-2	5	5	8	-10	16	6	11
<b>Memorandum items</b>								
Capital importing developing countries <sup>3/ 6/</sup>	...	14	7	7	2	13	2	-6
Non-oil developing countries <sup>3/ 7/</sup>	15	14	7	8	2	12	2	-8
Fifteen heavily indebted countries	...	9	--	-1	-1	2	-2	-3
Total change in liabilities <sup>8/</sup>	125	106	150	213	473	627	262	151
Industrial countries	113	64	108	169	371	440	195	105
Of which:								
United States	81	19	14	8	56	35	-6	4
Japan	...	15	11	40	111	146	64	68
Developing countries <sup>3/</sup>	-9	4	23	--	-9	36	22	6
Offshore centers <sup>4/</sup>	17	26	18	37	117	135	41	37
Other transactors <sup>5/</sup>	3	8	2	8	-6	16	4	3
<b>Memorandum items</b>								
Capital importing developing countries <sup>3/ 6/</sup>	...	11	23	4	3	26	17	5
Non-oil developing countries <sup>3/ 7/</sup>	2	11	22	1	11	27	19	5
Fifteen heavily indebted countries	...	1	11	-3	-7	-4	3	1
Change in total net claims <sup>9/</sup>	-20	5	4	4	-23	46	30	62
Industrial countries	-40	11	10	15	7	34	24	71
Of which:								
United States	-35	20	11	25	13	49	16	10
Japan	...	-7	11	-1	37	47	33	25
Developing countries <sup>3/</sup>	25	11	-18	7	11	-21	-18	-10
Offshore centers <sup>4/</sup>	1	-16	9	-18	-36	33	22	-6
Other transactors <sup>5/</sup>	-5	-2	3	--	-4	--	2	8
<b>Memorandum items</b>								
Capital importing developing countries <sup>3/ 6/</sup>	...	3	-16	4	-1	-13	-15	-11
Non-oil developing countries <sup>3/ 7/</sup>	13	3	-14	5	-9	-14	-17	-13
Fifteen heavily indebted countries	...	9	-11	2	6	-3	-5	-5
Net errors and omissions <sup>10/</sup>	20	-5	-4	-4	23	-46	-30	-63

Sources: International Monetary Fund, International Financial Statistics (IFS); and Fund staff estimates.

<sup>1/</sup> Data on changes in claims and liabilities are derived from stock data on the reporting countries' liabilities and assets, excluding changes attributed to exchange rate movements.

<sup>2/</sup> As measured by differences in the outstanding liabilities of borrowing countries, defined as cross-border interbank accounts by residence of borrowing bank.

<sup>3/</sup> Excluding offshore centers.

<sup>4/</sup> Consisting of The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore.

<sup>5/</sup> Transactors included in IFS measures for the world, to enhance global symmetry, but excluded from IFS measures for "All Countries." The data comprise changes in the accounts of the Bank for International Settlements with banks other than central banks and changes in identified cross-border interbank accounts of centrally planned economies (excluding Fund members).

<sup>6/</sup> Consisting of all developing countries except the eight Middle Eastern oil exporters (the Islamic Republic of Iran, Iraq, Kuwait, the Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) for which external debt statistics are either not available or are small in relation to external assets.

<sup>7/</sup> Consisting of all developing countries except the eight Middle Eastern oil exporters (listed in footnote 6), Algeria, Indonesia, Nigeria, and Venezuela.

<sup>8/</sup> As measured by differences in the outstanding assets of depositing countries, defined as cross-border interbank accounts by residence of lending banks.

<sup>9/</sup> Difference between changes in claims and liabilities.

<sup>10/</sup> Calculated as the difference between global measures of cross-border changes in interbank claims and liabilities.



Table 10. International Positions of Banks by Nationality of Ownership, December 1986 and December 1987

(In billions of U.S. dollars)

Parent Country of Bank	Total Claims				Total Liabilities				Net Liabilities			
	Dec. 1986	Dec. 1987	Change During 1986	Change During 1987	Dec. 1986	Dec. 1987	Change During 1986	Change During 1987	Dec. 1986	Dec. 1987	Change During 1986	Change During 1987
Total	3,406.3		725.8		3,276.5		705.6		129.8		20.2	
Of which:												
France	276.1		42.4		263.9		45.4		12.2		-3.0	
Germany, Fed. Rep. of	270.0		78.8		203.6		46.0		66.4		32.8	
Italy	145.1		31.9		150.6		35.7		-5.5		-3.8	
Japan	1,117.7		411.0		1,070.5		397.8		47.2		13.2	
Switzerland	152.0		42.8		133.0		33.9		19.0		8.9	
United Kingdom	211.7		19.5		226.2		23.7		-14.5		-4.2	
United States	598.3		8.8		571.9		19.6		26.4		-10.8	

Source: Bank for International Settlements, International Banking Developments.1/ Includes assets and liabilities vis-a-vis official monetary institutions.

Table 11. Change in Claims on Nonbanks and Liabilities to Nonbanks, 1982-First Half 1988 1/

(In billions of U.S. dollars)

	1982	1983	1984	1985	1986	1987	1987 First half	1988 First half
Total change in claims 2/	80	39	29	58	76	129	62	15
Industrial countries	51	16	9	24	38	83	39	29
Of which:								
United States	14	1	11	21	25	27	17	7
Japan	...	2	-3	--	5	31	13	4
Developing countries 3/	35	18	8	-1	-5	4	3	-7
Offshore centers 4/	7	1	2	9	5	1	1	3
Other transactors 5/	1	3	2	3	4	4	1	-2
Unidentified borrowers 6/	-12	1	7	23	33	38	17	-8
Memorandum items								
Capital importing developing countries 3/ 7/	...	15	8	1	-4	5	4	-6
Non-oil developing countries 3/ 8/	26	12	9	-1	-4	6	4	-5
Fifteen heavily indebted countries	...	2	5	-3	-1	--	3	-6
Total change in liabilities 9/	63	72	34	87	123	117	48	18
Industrial countries	37	27	5	26	61	53	29	17
Of which:								
United States	26	16	-7	14	26	22	11	--
Japan	...	--	1	1	3	2	--	--
Developing countries 3/	13	19	--	24	8	12	7	11
Offshore centers 4/	8	8	6	9	13	7	3	2
Other transactors 5/	1	2	--	1	-1	1	--	-1
Unidentified depositors 6/	6	15	22	28	42	44	9	-11
Memorandum items								
Capital importing developing countries 3/ 7/	...	18	2	18	9	10	4	6
Non-oil developing countries 3/ 8/	15	18	1	17	11	10	4	7
Fifteen heavily indebted countries	...	12	4	7	2	4	--	2
Change in total net claims on 10/	17	-33	-5	-29	-47	12	13	-3
Industrial countries	14	-11	4	-2	-22	30	10	12
Of which:								
United States	-12	-15	18	7	-2	5	6	7
Japan	...	2	-4	-1	3	29	13	5
Developing countries 3/	22	-1	8	-25	-13	-8	-4	-18
Offshore centers 4/	-1	-7	-4	1	-8	-6	-2	1
Other transactors 5/	--	1	1	2	5	2	1	-1
Unidentified (net) 6/	-18	-14	-15	-5	-9	-5	8	-1
Memorandum items								
Capital importing developing countries 3/ 7/	...	-2	6	-17	-13	-5	--	-13
Non-oil developing countries 3/ 8/	12	-5	8	-18	-15	-5	--	-12
Fifteen heavily indebted countries	...	-10	1	-10	-3	-4	3	-7

Sources: International Monetary Fund, International Financial Statistics (IFS); and Fund staff estimates.

1/ Data on changes in claims and liabilities are derived from stock data on the reporting countries' liabilities and assets, excluding changes attributed to exchange rate movements.

2/ As measured by differences in the outstanding liabilities of borrowing countries, defined as cross-border bank credits to nonbanks by residence of borrower.

3/ Excluding offshore centers.

4/ Consisting of The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore.

5/ Transactors included in IFS measures for the world, to enhance global symmetry, but excluded from IFS measures for "All countries." The data comprise changes in the accounts of international organizations (other than the Bank for International Settlements) with banks; and changes in identified cross-border banks accounts of nonbanks in centrally planned economies (excluding Fund members).

6/ Calculated as the difference between the amount that countries report as their banks' positions with nonresident nonbanks in their monetary statistics and the amounts that banks in major financial centers report as their positions with nonbanks in each country.

7/ Consisting of all developing countries except the eight Middle Eastern oil exporters (the Islamic Republic of Iran, Iraq, Kuwait, the Libyan Arab Jamahiriya, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) for which external debt statistics are either not available or are small in relation to external assets.

8/ Consisting of all developing countries except the eight Middle Eastern oil exporters (listed in footnote 7), Algeria, Indonesia, Nigeria, and Venezuela.

9/ As measured by differences in the outstanding assets of depositing countries defined as international bank deposits by nonbanks by residence of depositor.

10/ Difference between changes in claims and liabilities

Table 12. Developments in International Bond Markets, 1982-Third Quarter 1988

	1982	1983	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
(In billions of U.S. dollars)								
Total international bonds	76	77	110	168	227	181	149	172
Amortization	18	18	20	36	64	71	50	56
Net issues <sup>1/</sup>	58	59	90	132	163	110	99	116
Bond purchases by banks	9	13	28	55	76	54	46	...
Net issues less bonds purchases by banks	49	46	62	77	87	56	53	...
Of which:								
Industrial countries	39	36	51	63	77	48	46	...
Developing countries	3	2	3	4	2	2	2	...
By category of borrower								
Industrial countries	60	60	91	137	200	155	129	150
Developing countries	5	3	5	10	5	5	4	5
Other (including inter- national organizations)	11	14	13	21	21	21	16	16
(In percent)								
By currency of denomination								
U.S. dollar	64	57	64	61	55	36	39	39
Deutsche mark	7	9	6	7	8	8	8	10
Swiss franc	15	18	12	9	10	13	13	12
Japanese yen	5	5	6	8	10	15	14	10
Other	9	11	12	15	17	27	28	29
(In percent per annum)								
Interest rate developments								
Eurodollar deposits <sup>2/</sup>	9.5	10.1	9.0	8.0	6.3	7.9	7.6	8.4
Dollar Eurobonds <sup>3/</sup>	13.4	12.5	12.1	10.6	8.6	10.2	10.0	9.7
Deutsche mark interna- tional bonds <sup>3/</sup>	8.2	8.4	7.4	6.9	6.6	6.5	7.0	6.4

Sources: Organization for Economic Cooperation and Development, Financial Statistics Monthly and Financial Market Trends; and Fund staff estimates.

<sup>1/</sup> Gross issues less scheduled repayments and early redemption.

<sup>2/</sup> Three-month deposits, at end of period.

<sup>3/</sup> Bonds with remaining maturity of 7-15 years, at end of period.

Table 13. Gross International Bond Issues and Placements by Groups of Borrowers, 1983-Third Quarter 1988

	1983	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Foreign bonds	27,050	27,801	31,229	39,359	40,253	29,633	36,243
Industrial countries	18,693	18,299	19,474	28,766	30,991	22,536	27,789
Developing countries	894	1,618	2,078	2,185	1,480	1,375	2,079
International organi- zations	7,269	7,580	9,350	8,360	7,462	5,402	5,901
Other	194	303	327	48	320	320	474
Eurobonds	50,098	81,717	136,543	187,747	140,535	119,751	135,702
Industrial countries	41,015	73,145	117,365	171,763	124,142	106,323	121,871
Developing countries	2,382	3,646	7,511	3,247	3,611	2,733	3,636
International organi- zations	6,074	4,218	8,543	10,488	11,319	9,427	7,813
Other	627	709	3,124	2,250	1,463	1,267	2,381
International bonds	77,148	109,518	167,772	227,106	180,788	149,384	171,944
Industrial countries	59,708	91,444	136,839	200,529	155,133	128,860	149,660
Developing countries	3,276	5,264	9,589	5,432	5,091	4,108	5,715 <sup>1/</sup>
International organi- zations	13,343	11,798	17,893	18,848	18,781	14,829	13,715
Other	821	1,012	3,450	2,298	1,783	1,587	2,855

Source: Organization for Economic Cooperation and Development, Financial Statistics Monthly.

<sup>1/</sup> Excludes issue of collateralized Mexican bonds related to the Mexican debt exchange concluded in February 1988.

Table 14. Early Repayments of International Bonds, 1985-Third Quarter 1988

(In billions of U.S. dollars)

	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
By currency of denomination					
U.S. dollar	17.3	34.5	24.3	17.3	16.3
Deutsche mark	0.5	2.3	3.9	2.4	1.6
Swiss franc	0.3	1.5	6.2	3.8	6.0
Japanese yen	0.3	1.6	4.7	3.4	4.3
Pound sterling	0.1	0.2	0.7	0.4	1.2
Other	0.2	1.0	1.7	1.5	1.2
Total	18.7	41.1	41.5	28.8	30.0
By type of security					
Fixed-rate bonds	6.3	18.0	26.1	17.5	20.0
Floating rate notes	11.3	19.7	10.8	8.6	7.8
Convertibles	0.5	1.8	3.0	1.5	1.5
Floating-rate certificates of deposits	0.6	1.6	1.6	1.2	0.7
Total	18.7	41.1	41.5	28.8	30.0
By issuer					
Australia	0.1	1.4	2.2	1.6	0.6
Canada	0.7	2.5	2.6	1.9	1.5
Denmark	1.0	1.8	1.0	0.8	1.5
France	4.0	6.7	4.6	4.2	2.8
Italy	0.0	2.0	0.5	0.3	1.2
Japan	1.1	3.1	3.4	2.4	2.1
Sweden	3.4	4.0	2.3	1.7	3.3
United Kingdom	0.8	2.4	1.6	1.2	0.8
United States	3.4	6.6	7.6	4.6	4.1
International organizations	2.3	3.6	2.4	1.6	2.1
Other	1.9	6.9	13.4	8.5	9.4
Total	18.7	41.0	41.6	29.8	30.0

Source: Organization for Economic Cooperation and Development,  
Financial Market Trends.

Table 15. Borrowing on International Markets by Major Instruments, 1984-Third Quarter 1988 1/

(In percent)

	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Fixed rate bonds	52	56	62	67	67	71
Floating rate notes <u>2/</u>	34	35	22	7	5	9
Equity-related bonds	10	7	12	24	26	19
Other bonds <u>3/</u>	4	2	4	2	2	1
Total	100	100	100	100	100	100

Source: Organization for Economic Cooperation and Development, Financial Market Trends.

1/ Data shown exclude merger-related stand-by agreements and renegotiations.

2/ Including medium-term floating rate certificates of deposit.

3/ Zero coupon bonds, deep discount bonds, special placements, and bond offerings not included elsewhere.

Table 16. Market for Fixed Rate Bonds, 1985-Third Quarter, 1988

(In billions of U.S. dollars)

	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Borrowers, total	94.8	141.5	121.3	99.4	122.2
Industrial countries	77.3	122.8	99.8	82.2	104.6
Of which:					
Australia	5.1	5.4	4.6	3.8	3.9
Austria	2.0	3.2	4.6	3.2	5.2
Belgium	0.7	2.3	3.6	2.9	2.3
Canada	7.5	13.4	8.3	6.0	9.4
Denmark	2.2	7.2	3.9	3.4	3.4
Finland	0.9	2.8	2.6	2.0	3.3
France	4.8	8.6	7.7	6.5	10.8
Germany, Federal					
Republic of	1.6	7.7	8.4	7.5	7.2
Italy	0.8	2.0	4.9	2.6	5.1
Japan	11.4	15.7	13.4	11.0	10.5
Netherlands	1.2	2.5	2.8	2.4	3.3
New Zealand	1.3	3.0	2.4	1.9	1.6
Norway	1.4	4.3	3.8	3.6	4.4
Sweden	3.9	5.5	4.4	3.9	6.0
United Kingdom	2.5	5.1	6.2	4.8	10.5
United States	26.2	29.0	14.5	13.7	12.0
Developing countries	2.3	2.6	2.9	2.8	5.0
Other, including international organizations	15.2	16.1	18.7	4.5	12.6
Currency distribution, total	94.8	141.5	121.3	99.4	122.2
U.S. dollar	45.1	64.1	30.9	25.2	36.5
Japanese yen	11.3	21.9	22.6	19.6	14.9
Swiss franc	10.5	16.4	16.9	12.2	15.2
Deutsche mark	6.7	11.6	12.7	9.4	16.3
ECU	6.0	5.8	7.0	6.1	6.7
Pound sterling	3.1	4.7	8.9	7.1	9.7
Australian dollar	3.1	3.2	7.5	7.2	5.1
Canadian dollar	2.2	5.3	5.9	5.5	9.6
Netherlands guilder	1.6	2.5	1.9	1.4	1.7
Other	--	6.0	7.0	5.7	6.5

Source: Organization for Economic Cooperation and Development, Financial Market Trends.

Table 17. Market for Floating Rate Issues, 1984-Third Quarter 1988

(In billions of U.S. dollars)

	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Borrowers, total	38.2	58.7	51.2	13.0	7.3	14.6
Industrial countries	34.4	48.5	47.3	11.3	6.0	13.9
Of which:						
Belgium	1.6	1.8	1.6	0.1	--	--
Canada	0.8	2.1	3.0	0.1	0.1	0.1
Denmark	1.7	0.6	1.2	--	--	--
France	5.4	6.5	4.2	0.7	0.2	2.1
Italy	3.5	4.4	2.0	2.0	0.4	0.1
Japan	2.9	2.3	1.8	2.2	1.0	0.9
Sweden	4.1	2.2	0.1	--	--	0.1
United Kingdom	3.7	12.2	12.8	2.4	1.5	7.7
United States	5.5	10.5	10.1	2.0	1.8	0.8
Developing countries	2.8	6.2	2.1	1.4	1.1	0.5
Other, including international organizations	1.0	4.0	1.8	0.3	0.2	0.3
Currency distribution, total	38.2	58.7	51.2	13.0	7.3	14.6
U.S. dollar	35.1	50.5	41.1	4.6	3.5	4.8
Pound sterling	2.0	3.4	5.7	2.0	1.3	7.3
Deutsche mark	--	3.2	1.6	0.4	0.2	0.5
ECU	0.5	1.0	1.0	0.2	--	--
Other	0.6	0.6	1.8	5.8	2.3	2.0

Source: Organization for Economic Cooperation and Development, Financial Market Trends.



Table 18. Market for Equity-Related Bonds, 1984-Third Quarter 1988

(In billions of U.S. dollars)

	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Borrowers, total	10.9	11.3	26.9	43.0	39.4	33.2
Japan	7.6	5.9	14.9	28.0	25.6	29.3
United States	1.9	3.2	3.4	4.7	4.3	0.7
United Kingdom	0.3	0.7	1.5	4.0	3.6	0.4
Germany, Fed. Rep. of	0.3	1.0	1.7	1.5	1.5	0.5
Switzerland	0.2	0.1	1.2	0.4	0.3	--
Other OECD countries	0.6	0.4	4.2	4.4	4.1	2.3
Currency distribution, total	10.9	11.3	26.9	43.0	39.4	33.2
U.S. dollar	5.5	5.3	16.4	29.2	27.3	24.0
Swiss franc	4.2	3.9	6.5	6.8	6.0	6.3
Deutsche mark	0.9	1.3	2.8	2.0	1.8	0.6
Other	0.3	0.8	1.2	5.0	4.3	2.3

Source: Organization for Economic Cooperation and Development, Financial Market Trends.

Table 19 International Facilities by Category of Instrument, 1983-Third Quarter 1988

(In billions of U.S. dollars)

	1983	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1987
Total note issuance facilities	3.5	17.4	34.4	24.8	29.0	17.8	15.4
Of which:							
Multiple component facilities	--	8.0	15.0	13.2	19.6	10.2	11.5
Backup for Euronotes	0.9	6.4	17.4	9.1	8.3	6.9	3.9
Bankers' acceptances	1.8	5.8	2.1	2.0	0.6	0.5	0.4
Commercial paper backups	3.0	2.8	4.4	1.6	0.4	0.4	--
Other instruments	1.2	2.8	2.0	0.9	1.2	1.0	1.1
Subtotal (Back-up facilities)	9.5	28.8	42.9	29.3	31.2	19.7	16.9
Merger-related stand-by agreements	4.0	26.5	6.0	0.7	--	--	--
Subtotal	13.5	55.3	48.9	30.0	31.2	19.7	11.9
Eurocommercial paper programs	...	...	12.6	59.0	55.8	40.3	48.5
Total	13.5	55.3	61.5	89.0	87.0	60.0	60.4

Source: Organization for Economic Cooperation and Development, Financial Market Trends.

Table 20. Financial Futures and Options: Exchanges, Contracts, and Volume of Contracts Traded, 1985-September 1988

Exchange/Type	Contract Unit	Volume of Contracts Traded				
		1985	1986	1987	Jan.- Sept. 1987 1/	Jan.- Sept. 1988 1/
(In thousands of contract units)						
United States						
Chicago Board of Trade (CBOT)						
Interest rate						
Futures						
GNMA Mortgages, CDR 2/	US\$100,000	84	31	8	7	0
U.S. Treasury bonds	US\$100,000	40,448	52,598	66,841	50,165	52,570
U.S. Treasury notes 3/	US\$100,000	2,860	4,426	5,254	3,830	4,066
Corporate Bond Index	US\$500 x index	0	0	11	0	0
Municipal Bond Index	US\$1000 x index	335	907	1,613	1,234	1,051
Options						
U.S. Treasury bonds	US\$100,000	11,901	17,314	21,720	15,876	14,613
U.S. Treasury notes	US\$100,000	177	1,001	1,422	1,138	729
Municipal Bond Index	US\$100,000 x index	0	0	119	47	129
Stock Index						
Futures						
Major Market Index Maxi	US\$250 x index	422	1,739	2,631	2,193	928
Major Market Index	US\$100 x index	2,062	36	4	0	0
Chicago Board Options Exchange (CBOE)						
Interest rate						
Options						
U.S. Treasury bonds and notes	US\$100,000	416	319	208	163	23
Stock Index						
Options						
S&P 100 index options	US\$100 x index	0	0	0	0	42,663
S&P 500 index options	US\$100 x index	0	0	0	0	3,315
Currency						
Options						
Pound sterling, Deutsche mark, Canadian dollar, Japanese yen, French franc, Australian dollar, ECU 4/		129	456	239	226	0
Midamerica Commodity Exchange (Midax)						
Interest rate						
Futures						
U.S. Treasury bonds	US\$50,000	297	468	1,015	733	1,081
U.S. Treasury bills	US\$500,000	37	35	26	16	21
Currency						
Futures						
Pound sterling	£ 12,500	21	17	11	9	24
Swiss franc	Sfr f 62,500	110	102	98	7	564
Deutsche mark	DM 62,500	85	75	85	68	37
Japanese yen	¥ 6,250,000	33	48	59	47	33
Canadian dollar	Can\$ 50,000	3	6	8	7	7
Chicago Mercantile Exchange (CME)						
Interest rate						
Futures						
U.S. Treasury bills	US\$1,000,000	2,413	1,815	1,927	1,372	1,038
Options						
U.S. Treasury bills	US\$1,000,000	0	64	12	11	5
Currency						
Futures						
Eurodollar three-months	US\$1,000,000	8,901	10,825	20,416	15,188	15,931
European currency unit	ECU 12,500	0	43	0	0	0
Pound sterling	£ 25,000	2,799	2,701	2,592	1,904	2,070
Canadian dollar	Can\$ 100,000	468	734	915	761	994
Deutsche mark	DM 125,000	6,449	6,582	6,037	4,435	4,062
Japanese yen	¥ 12,500,000	2,415	3,970	5,359	3,818	4,738
Swiss franc	Sfr f 125,000	4,758	4,998	5,268	3,990	3,970
French franc	F 250,000	9	3	10	9	2
Australian dollar	A\$ 100,000	0	0	53	47	60
Options						
Eurodollar	US\$1,000,000	743	1,757	2,570	2,003	1,797
Pound sterling	£ 25,000	329	497	569	427	438
Deutsche mark	DM 125,000	1,562	2,206	3,126	2,278	1,992
Swiss franc	Sfr f 125,000	325	818	1,053	717	913
Japanese yen	¥ 1,250,000	0	865	2,251	1,584	2,179

Table 20(Continued). Financial Futures and Options: Exchanges, Contracts, and Volume of Contracts Traded, 1985-September 1988

Exchange/Type	Contract Unit	Volume of Contracts Traded				
		1985	1986	1987	Jan.- Sept. 1987 1/	Jan.- Sept. 1988 1/
(In thousands of contract units)						
Canadian dollar	Can\$ 100,000	0	26	49	39	176
Australian dollar	SA 100,000	0	0	0	0	5
Stock index						
Futures						
S&P 500	US\$500 x index	15,056	19,505	19,045	15,343	8,855
S&P 100	US\$200 x index	2	4	0	0	0
S&P OTC index	US\$500 x index	95	5	0	0	0
Options						
S&P 500 index	US\$500 x index	1,090	1,886	1,877	1,594	554
Kansas City Board of Trade						
Stock index						
Futures						
Value Line Index	US\$500 x index	1,205	954	506	458	67
New York Commodity Exchange						
Interest rate						
Futures						
Corporate bond index	US\$500 x index	0	0	11	0	0
New York Cotton Exchange						
Interest rate						
Futures						
Five-year U.S. Treasury notes	US\$100,000	0	0	384	240	589
Options						
Five-year U.S. Treasury notes	US\$100,000	0	0	0	0	9
Currency						
Futures						
ECU	ECU 100,000	0	72	42	37	23
U.S. dollar index	US\$500 x index	75	166	404	279	313
Options						
U.S. Dollar index	US\$500 x index	0	0	15	11	10
New York Futures Exchange (NYFE)						
Stock index						
Futures						
NYSE Composite index	US\$500 x index	2,834	3,124	2,916	2,420	1,335
Russell 2000 stock index	US\$500 x index	0	0	6	3	0
Russell 3000 stock index	US\$500 x index	0	0	11	7	0
Options						
NYSE Composite stock index	US\$500 x index	196	296	207	186	16
New York Stock Exchange (NYSE) 5/						
Stock Index						
Options						
NYSE indices 6/	US\$100 x index	4,259	3,775	1,944	1,496	442
American Stock Exchange (AMEX) 5/						
Interest rate						
Options						
U.S. Treasury notes	US\$1,000,000					
U.S. Treasury bills 7/	US\$100,000	22	27	33	19	0
Stock Index						
Options						
AMEX indices 8/		12,226	19,064	16,881	11,426	44,865
Philadelphia Stock Exchange (PHILX)						
Currency						
Options						
Pound sterling	£ 12,500	1,361	968	1,876	1,420	1,172
Canadian dollar	Can\$ 50,000	137	170	318	141	216
Deutsche mark	DM 62,500	906	2,487	4,260	3,216	2,461
French franc	F 125,000	79	45	70	37	176
Japanese yen	¥ 6,250,000	587	1,885	2,460	1,616	2,252
Swiss franc	Sw f 62,500	682	2,337	1,304	1,092	892
ECU	ECU 62,500	0	13	2	2	1
Australian dollar	SA 150,000	0	0	224	157	434
Stock Index						
Options						
PHILX indices 9/	2,329		1,248	450	345	91

Table 2(Continued). Financial Futures and Options: Exchanges, Contracts, and Volume of Contracts Traded, 1985-September 1988

Exchange/Type	Contract Unit	Volume of Contracts Traded				
		1985	1986	1987	Jan.- Sept. 1987 1/	Jan.- Sept. 1988 1/
(In thousands of contract units)						
Pacific Stock Exchange (PSE) 5/						
Stock Index						
Options						
Financial News composite index	US\$100 x index	95	184	407	320	141
United Kingdom						
London International Financial Futures Exchange (LIFFE)						
Interest rate						
Futures						
Gilt 10/	£ 50,000	383 11/	2,717	7,036	4,745	4,066
Eurodollar (three month)	US\$1,000,000	1,292	1,110	1,739	1,235	1,223
Pound sterling (three month)	£ 500,000	231 11/	967	1,510	938	2,120
U.S. Treasury bonds	US\$100,000	443 11/	1,575	1,571	910	1,352
Yen Treasury bonds	¥ 100,000,000	31 11/	0	136	92	85
Options						
Eurodollar (three month)	US\$1,000,000	54	39	40	30	50
U.S. Treasury bonds	US\$100,000		53	56	34	47
Gilt	£ 50,000		285	1,045	637	840
Pound sterling (three month)	£ 500,000		0	15	0	227
Stock Index						
Futures						
Financial Times stock index	£ 25 x index	54 11/	124	470	246	259
Options						
Financial Times stock index	£ 25 x index		3	9	7	1
Currency						
Futures						
Deutsche mark	DM 125,000	20	17	8	7	3
U.S. Dollar/DM	US\$50,000		1	0	0	0
Pound sterling	£ 25,000	117	42	13	12	5
Swiss franc	Sfr 125,000	7	6	5	4	2
Japanese yen	¥ 12,500,000	10	8	6	5	2
Options						
U.S. Dollar/DM	US\$50,000		9	3	2	1
Pound sterling	£ 25,000	245	105	16	13	9
France						
Marché à Terme d'Instruments Financiers (MATIF)						
Interest rate						
Futures						
French Government bonds	F 500,000		1,139	11,911	5,410	7,316
French Treasury bill	F 5,000,000		39	107	64	15
Options						
Notional bonds	F 500,000		0	0	0	2,012
Japan						
Osaka Securities Exchange						
Stock Index						
Futures						
OSF 50			0	186	21	533
Tokyo Stock Exchange						
Interest rate						
Futures						
Ten-year yen Government bonds	¥ 100,000,000	124 12/	8,575	18,262	13,732	12,262
Canada						
Montreal Exchange						
Interest rate						
Options						
Canadian Treasury bill	Can\$ 250,000		3	6	5	1

Table 20(Continued). Financial Futures and Options: Exchanges, Contracts, and Volume of Contracts Traded, 1985-September 1988

Exchange/Type	Contract Unit	Volume of Contracts Traded				
		1985	1986	1987	Jan.- Sept. 1987 1/	Jan.- Sept. 1988 1/
(In thousands of contract units)						
Canadian Treasury bonds	Can\$ 25,000	123 11/	289	416	267	239
Currency						
Options						
Canadian dollar	Can\$ 50,000		—	—	—	—
Toronto Futures Exchange						
Interest rate						
Futures						
Canadian Treasury bill	Can\$ 1,000,000	11 13/	10	0	0	0
Canadian Treasury bonds	Can\$ 100,000	1 13/	2	0	0	0
Options						
Canadian Treasury bonds	Can\$ 25,000	34 13/	43	25	25	0
Stock index						
Futures						
TSE 300 14/		20 14/	126	35	35	1
TS 35	Can\$ 500 x index		0	29	9	21
Options						
TS 35	Can\$ 100 x index		0	199	33	261
The Netherlands						
European Options Exchange						
Interest rate						
Options						
Dutch Government bonds	f 10,000		0	635	466	377
Currency						
Options						
US\$/guilder & £/guilder	US\$10,000, £ 10,000		0	692	439	356
Stock index						
Options						
BOE & MMI stock index	f 100 x BOE, US\$100 x MMI		0	428	142	443
Sweden						
Stockholm Options Market						
Interest rate						
Options						
Swedish Treasury bonds	SKr 1,000,000		0	766	590	168
Stock index						
Futures						
OMK 30	SKr 100 x index		0	159	66	237
Options						
OMK 30	SKr 100 x index		0	6,739	3,243	2,574
Australia						
Sydney Futures Exchange						
Interest rate						
Futures						
90-day bank bills	A 500,000	484 15/	1,073	2,094	1,294	1,991
Australian Treasury bonds	A 100,000	223 15/	1,448	2,061	1,254	1,944
U.S. Treasury bonds	US\$100,000		7	2	2	0
Eurodollar	US\$1,000,000		2	1	0	0
Australian dollar			0	0	0	16
Three-year bonds			0	0	0	164
Options						
90-day bank bills	A 500,000	13 15/	32	58	30	121
Australian Treasury bonds	A 100,000		170	37	3,191	516
Three-year bonds			0	0	0	2
Australian dollar			0	0	0	2
Currency						
Futures						
U.S. dollar		30 15/	40	6	6	0
Stock index						
Futures						
All ordinaries index	A\$ 100 x index	279 15/	466	616	454	181
Options						
All ordinaries index	A\$ 100 x index	4 15/	40	137	93	47

Table 20 (Concluded). Financial Futures and Options: Exchanges, Contracts, and Volume of Contracts Traded, 1985-September 1988

Exchange/Type	Contract Unit	Volume of Contracts Traded				
		1985	1986	1987	Jan.- Sept. 1987 1/	Jan.- Sept. 1988 1/
(In thousands of contract units)						
New Zealand						
New Zealand Futures Exchange						
Interest rate						
Futures						
New Zealand Treasury						
notes	\$NZ 100,000		74	176	132	227
90-day bank bills	\$NZ 500,000		3	38	24	47
Currency						
Futures						
U.S. dollar	US\$50,000		11	16	10	11
Stock index						
Futures						
Barclays stock index	\$NZ 20 x index		0	120	96	11
Singapore International Monetary Exchange (SIMEX)						
Interest rate						
Futures						
Eurodollar	US\$1,000,000	295	460	1,520	108	1,281
U.S. Treasury bonds	US\$100,000		35	14	14	0
Options						
Eurodollar	US\$1,000,000		0	30	0	9
Currency						
Futures						
Deutsche mark	DM 125,000	170	214	131	111	69
Japanese yen	¥ 12,500,000	32	111	94	67	126
Pound sterling	£ 25,000		18	8	8	2
Options						
Deutsche mark	DM 125,000		0	7	0	10
Japanese yen	¥ 12,500,000		0	15	0	55
Stock index						
Futures						
Nikkei stock average	¥ 500 x index		34	363	206	365
Hong Kong Futures Exchange						
Stock index						
Futures						
Hang Sheng stock index	HK\$50 x index		691	3,611	2,546	107

Notes: \$A = Australian dollar; Can\$ = Canadian dollar; ECU = European Currency Unit; F = French franc; DM = deutsche mark; ¥ = Japanese yen; £ = pound sterling; US\$ = U.S. dollar; SKr = Swedish Krone; and HK\$ = Hong Kong dollar. Options volume is put and calls combined.

Sources: Futures Industry Association, Monthly Volume Report, Monthly Options Report, and International Report; Euromoney (Corporate Finance Supplement), Futures and Options Directors; U.S. Securities and Exchange Commission, Monthly Statistical Review; Philadelphia Stock Exchange; European Options Exchange; Stockholm Options Market.

1/ For all non-U.S. exchanges (except LIFFE and SIMEX for currency and eurodollar contracts), the last two columns should read August instead of September.

2/ Combined cash settlement and Collateralized Depository Receipts (CDR) contracts.

3/ Includes some five year notes in the 1988 figure.

4/ Stopped trading in August 1987. Contract units were DM 125,000, ¥ 12,500,000, Can\$ 100,000, F 250,000, £ 25,000, \$A 100,000, and ECU 100,000.

5/ Data until July 1988; the last two columns refer to January-July of 1987 and 1988, respectively.

6/ Includes NYSE Composite Index and NYSE Beta Index.

7/ U.S. Treasury bills and notes combined.

8/ Includes AMEX Major Market Index, AMEX Institutional Index, AMEX Computer Technology Index, and AMEX Oil Index.

9/ PHLX Value Line Index, PHLX National OTC Index.

10/ Very few short gilts (£ 100,000), a small number of medium gilts (£ 50,000), mainly long gilts (£ 50,000).

11/ Data reported is from June 1985-December 1985 only.

12/ Data reported is for November 1985 only.

13/ Data reported is from October 1985-December 1985 only.

14/ Spot and composite index combined.

15/ Data reported is for May 1985-December 1985 only.

Table 21. Trading Volume and Open Interest <sup>1/</sup> in Selected Futures and Options Contracts <sup>2/</sup>

(Number of contracts: average)

(Exchanges: CME <sup>3/</sup>; LIFFE <sup>4/</sup>; SIMEX <sup>5/</sup>; PHILX <sup>6/</sup>)

	1982	1983	1984	1985	1986	1987	Sept. 7/ 1987	Sept. 7/ 1988
<b>Eurodollar contracts</b>								
<b>Futures</b>								
Monthly trading volume								
CME	26,968	74,256	349,413	741,711	902,076	1,701,351	1,687,650	1,770,078
LIFFE	40,378	38,217	85,439	107,694	92,505	144,954	137,270	135,934
SIMEX	—	—	5,598	24,563	38,321	126,636	113,142	142,295
Open interest (end of period)								
CME	—	45,602	85,128	121,537	214,401	292,326	360,993	471,897
LIFFE	2,084	8,565	9,998	17,740	22,334	24,929	29,413	29,156
SIMEX	—	—	—	—	—	15,461	20,986	27,591
<b>Options</b>								
Monthly trading volume								
CME	—	—	—	61,923	146,452	214,163	222,575	199,713
LIFFE	—	—	—	4,489	3,231	3,322	3,342	5,591
SIMEX	—	—	—	—	—	2,463 <sup>8/</sup>	—	983
Open interest (end of period)								
CME	—	—	—	43,077	92,108	69,792	98,230	131,102
LIFFE	—	—	—	3,991	2,215	918	2,655	6,964
SIMEX	—	—	—	—	—	244 <sup>8/</sup>	—	668
<b>Public Sector Issues</b>								
<b>Futures</b>								
Monthly trading volume								
CME:								
90-day U.S. T-bill	549,904	315,822	274,401	201,112	151,264	160,584	152,476	115,376
LIFFE:								
U.S. Treasury bond	—	—	23,628	50,256	128,736	127,360	106,872	172,735
Japanese Government bond	—	—	—	—	—	25,991	45,605	10,608
Open interest (end of period)								
CME:								
90-day U.S. T-bill	—	40,813	69,014	33,263	37,558	18,752	21,108	20,943
LIFFE:								
U.S. Treasury bond	—	—	1,378	2,477	3,342	6,053	6,495	9,219
Japanese Government bond	—	—	—	—	—	514	789	522
<b>Options</b>								
Monthly trading volume								
CME:								
90-day U.S. T-bill	—	—	—	—	5,314	970	1,169	527
LIFFE:								
U.S. Treasury bond	—	—	—	—	5,225	4,542	4,250	6,241
Japanese Government bond	—	—	—	—	—	—	—	—
Open interest (end of period)								
CME:								
90-day U.S. T-bill	—	—	—	—	2,781	86	299	290
LIFFE:								
U.S. Treasury bond	—	—	—	—	1,343	1,609	2,244	9,965
Japanese Government bond	—	—	—	—	—	—	—	—
<b>Pound Sterling</b>								
<b>Futures</b>								
Monthly trading volume								
CME	110,142	134,583	120,374	233,252	225,111	216,015	211,560	229,978
LIFFE	14,045	10,142	12,192	9,747	3,475	1,047	1,282	566
SIMEX	—	—	—	—	1,498	694	842	250
Open interest (end of period)								
CME	—	16,968	1,524	25,082	23,145	28,593	26,290	12,790
LIFFE	556	2,261	4,264	1,886	985	121	369	168
SIMEX	—	—	—	—	—	30	117	234
<b>Options</b>								
Monthly trading volume								
CME	—	—	—	27,423	41,383	47,422	47,478	48,629
LIFFE	—	—	—	20,405	8,762	1,297	1,485	1,042
PHILX	—	5,684	37,482	113,412	80,625	156,351	157,728	130,227
Open interest (end of period)								



Table 21(Continued). Trading Volume and Open Interest <sup>1/</sup> in Selected Futures and Options Contracts <sup>2/</sup>

(Number of contracts: average)

(Exchanges: CME <sup>3/</sup>; LIFFE <sup>4/</sup>; SIMEX <sup>5/</sup>; PHILX <sup>6/</sup>)

	1982	1983	1984	1985	1986	1987	Sept. 7/ 1987	Sept. 7/ 1988
CME	—	—	—	—	28,617	45,511	39,830	20,621
LIFFE	—	—	—	12,943	2,150	755	1,319	4,196
PHILX	—	7,923	47,962	100,382	79,881	110,970	222,114	122,769
Canadian dollar								
Futures								
Monthly trading volume								
CME	89,872	46,562	28,823	39,083	61,173	76,214	84,546	110,396
Open interest (end of period)								
CME	—	5,131	775	13,929	14,937	14,908	21,422	17,849
Options								
Monthly trading volume								
PHILX	—	560	6,082	11,423	14,192	26,478	15,616	24,050
CME	—	—	—	—	2,205	4,058	4,281	19,557
Open interest (end of period)								
PHILX	—	1,818	6,551	5,505	19,014	22,405	16,576	27,303
CME	—	—	—	—	4,700	2,486	3,214	14,876
Deutsche mark								
Futures								
Monthly trading volume								
CME	149,408	201,959	459,026	537,449	548,512	503,087	514,963	451,299
LIFFE	2,355	2,153	2,368	1,701	1,426	683	779	352
SIMEX	—	—	6,855	14,196	17,814	10,901	12,322	7,636
Open interest (end of period)								
CME	—	22,804	33,746	53,525	44,292	32,536	31,167	36,267
LIFFE	103	225	123	206	211	77	118	54
SIMEX	—	—	—	—	—	333	186	728
Options								
Monthly trading volume								
PHILX	—	3,852	3,110	75,475	207,253	355,007	357,345	273,437
CME	—	—	60,636	130,203	183,798	260,474	253,116	221,325
SIMEX	—	—	—	—	—	559	—	1,119
Open interest (end of period)								
PHILX	—	6,395	26,333	74,858	244,220	183,241	302,877	220,358
CME	—	—	35,543	56,606	64,883	145,389	—	—
LIFFE	—	—	—	—	191	102	307	440
SIMEX	—	—	—	—	—	663	—	2,028
Japanese yen								
Futures								
Monthly trading volume								
CME	146,854	286,855	194,564	201,258	330,815	446,546	424,278	526,407
LIFFE	526	1,584	981	819	648	486	556	203
SIMEX	—	—	351	2,628	9,278	7,798	7,450	13,949
Open interest (end of period)								
CME	—	32,998	11,542	28,058	23,172	42,656	37,058	31,690
LIFFE	103	225	123	206	211	77	246	59
SIMEX	—	—	—	—	—	675	520	2,228
Options								
Monthly trading volume								
PHILX	—	2,872	20,312	48,928	157,086	204,990	179,543	251,297
CME	—	—	—	—	72,049	187,568	175,965	242,154
LIFFE	—	—	—	—	—	—	—	—
SIMEX	—	—	—	—	—	1,220	—	6,094
Open interest (end of period)								
PHILX	—	6,009	19,350	64,046	89,862	150,840	212,475	196,198
CME	—	—	—	—	35,009	130,504	119,948	102,329
SIMEX	—	—	—	—	—	1,193	—	7,018
Swiss franc								
Futures								
Monthly trading volume								
CME	221,111	313,844	344,157	396,513	416,536	439,023	443,340	441,161
LIFFE	562	1,026	1,055	557	488	430	486	195
Open interest (end of period)								
CME	—	21,450	17,861	27,351	23,138	24,298	23,328	20,240
LIFFE	137	84	113	111	488	60	176	82

Table 21.(Concluded). Trading Volume and Open Interest <sup>1/</sup> in Selected Futures and Options Contracts <sup>2/</sup>

(Number of contracts: average)

(Exchanges: CME <sup>3/</sup>; LIFFE <sup>4/</sup>; SIMEX <sup>5/</sup>; PHILX <sup>6/</sup>)

	1982	1983	1984	1985	1986	1987	Sept. <sup>7/</sup> 1987	Sept. <sup>7/</sup> 1988
Options								
Monthly trading volume								
PHILX	—	3,211	27,467	56,847	194,774	691,961	121,370	98,957
CME	—	—	—	27,067	68,158	87,777	79,647	90,321
Open interest (end of period)								
PHILX	—	7,113	29,445	41,847	351,991	50,273	104,177	119,416
CME	—	—	—	17,435	26,335	51,934	45,745	47,213
French franc								
Futures								
Monthly trading volume								
CME	1,373	2,196	699	778	224	870	1,047	203
Open interest (end of period)								
CME	—	1,482	343	134	92	109	866	102
Options								
Monthly trading volume	—	—	—	—	—	—	—	—
PHILX	—	—	1,095	6,569	3,771	5,810	4,165	19,519
Open interest (end of period)	—	—	—	—	—	—	—	—
PHILX	—	—	2,589	15,055	3,014	13,386	16,542	47,210
Australian dollar								
Futures								
Monthly trading volume								
CME	—	—	—	—	—	4,445	5,184	6,687
Open interest (end of period)								
CME	—	—	—	—	—	618	1,241	1,733
Options								
Monthly trading volume								
PHILX	—	—	—	—	—	18,641	18,505	48,194
CME	—	—	—	—	—	—	—	523
Open interest (end of period)								
PHILX	—	—	—	—	—	27,320	32,282	94,841
CME	—	—	—	—	—	—	—	589
Mexican Peso								
Futures								
Monthly trading volume								
CME	5,420	3,359	1,280	1,061	—	—	—	—
Open interest (end of period)								
CME	—	1,885	1,159	—	—	—	—	—
Options								
Monthly trading volume	—	—	—	—	—	—	—	—
Open interest (end of period)	—	—	—	—	—	—	—	—

<sup>1/</sup> Open interest is the total number of contracts not offset by an opposite transaction nor fulfilled by delivery.<sup>2/</sup> Contract units for each instrument and exchange are specified in Table ....<sup>3/</sup> Chicago Mercantile Exchange (CME).<sup>4/</sup> London International Financial Futures Exchange (LIFFE).<sup>5/</sup> Singapore Mercantile Exchange (SIMEX).<sup>6/</sup> Philadelphia Stock Exchange (PHILX).<sup>7/</sup> Data for average monthly trading volume cover the period January through September. Data for Open Interest correspond to the month of September.<sup>8/</sup> Data cover the period October-December 1987.

Table 22. Outstanding Swap Transactions by Currencies

(December 31, 1987)

Currency	Interest Rate Swaps		Currency Swaps	
	(In millions of US\$)	(Percentage)	(In millions of US\$)	(Percentage)
U.S. dollar	703,154	79.05	98,015	44.72
Japanese yen	59,988	6.74	37,025	16.89
Pound sterling	40,142	4.51	6,327	2.89
Deutsche mark	39,583	4.45	12,281	5.60
Other	46,662	5.25	65,542	29.90
Total:	889,529	100.00	219,190	100.00

Source: International Swap Dealers Association, New York.

Table 23. Bank Lending to and Deposit Taking from Developing Countries,  
Total Cross-Border Flows, 1983-First Half 1988 1/

(In billions of U.S. dollars)

	1983	1984	1985	1986	1987	1987 First half	1988 First half
Lending to <u>2/</u>	45.2	42.2	34.8	82.8	186.6	71.6	23.0
Offshore centers <u>3/</u>	11.8	28.3	28.3	85.8	168.3	64.4	33.9
Developing countries <u>4/</u>	33.4	13.8	6.5	-3.0	18.4	6.9	-10.8
Africa	5.0	--	1.5	-2.0	-1.6	-0.7	-0.5
Asia	8.9	8.0	6.8	5.0	14.7	4.6	-4.0
Europe	0.7	1.4	1.9	-1.7	-0.4	-0.5	-0.6
Middle East	3.6	-0.9	-2.1	-2.4	0.9	1.1	1.2
Western Hemisphere	15.2	5.4	-1.5	-1.9	4.7	2.4	-7.0
Deposit taking from <u>5/</u>	57.1	46.7	69.4	129.5	189.9	73.0	56.5
Offshore centers <u>3/</u>	34.1	23.7	45.6	130.4	142.1	44.2	39.0
Developing countries <u>4/</u>	23.0	23.0	23.9	-0.9	47.8	28.8	17.5
Africa	1.5	-1.3	3.9	-0.1	3.7	1.6	2.2
Asia	10.6	8.8	8.5	10.5	17.8	16.1	3.5
Europe	1.7	4.0	2.3	0.7	2.4	-0.7	1.7
Middle East	-4.9	-3.0	2.9	-13.6	14.9	8.1	7.2
Western Hemisphere	14.0	14.5	6.3	1.6	9.1	3.7	3.0

Sources: International Monetary Fund, International Financial Statistics; and Fund staff estimates.

1/ Data on lending and deposit taking are derived from stock data on the reporting countries' liabilities and assets, excluding changes attributed to exchange rate movements.

2/ As measured by differences in the outstanding liabilities of borrowing countries defined as cross-border interbank accounts by residence of borrowing bank plus international bank credits to nonbanks by residence of borrower.

3/ Consisting of The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore.

4/ Excluding offshore centers.

5/ As measured by differences in the outstanding assets of depositing countries, defined as cross-border interbank accounts by residence of lending bank plus international bank deposits of nonbanks by residence of depositor.

Table 24. Bank Lending to Developing Countries, 1983-First Half 1988 1/ 2/

(In billions of U.S. dollars; or in percent)

	1983	1984	1985	1986	1987	First Half 1987	First Half 1988
Developing countries	33.4	13.8	6.5	-3.0	18.4	6.9	-10.8
Growth rate	6	2	1	-1	3	1	-2
Africa	5.0	--	1.5	-2.0	-1.6	-0.7	-0.5
Of which:							
Algeria	0.2	0.1	1.8	1.0	-0.4	-0.2	0.3
Cote d'Ivoire	-0.1	-0.3	--	--	-0.1	--	-0.2
Morocco	0.3	0.1	0.1	--	--	0.1	-0.2
Nigeria	1.3	-0.4	-0.7	-0.2	-1.0	-0.3	-0.6
South Africa	3.0	-1.4	-0.3	-2.1	-0.1	-0.1	-0.3
Asia	8.9	8.0	6.8	5.0	14.7	4.6	-4.0
Of which:							
China	0.8	1.3	4.8	0.7	4.8	2.0	2.3
India	0.9	0.1	1.7	0.3	2.6	0.8	0.6
Indonesia	2.6	0.7	--	0.6	0.9	0.9	--
Korea	2.0	3.5	2.2	-2.3	-5.6	-3.6	-0.8
Malaysia	1.9	1.4	-1.4	-0.5	-1.9	-0.7	-0.9
Philippines	-1.3	0.1	-0.5	-0.1	0.1	0.1	-0.9
Taiwan, Province of China	-0.6	0.4	--	7.1	13.3	4.8	-4.6
Europe	0.7	1.4	1.9	-1.7	-0.4	-0.5	-0.6
Of which:							
Greece	1.3	1.2	1.2	-1.2	-0.9	-0.5	0.6
Hungary	0.9	0.2	2.3	2.0	0.9	0.6	0.3
Poland	--	--	-1.4	-0.9	-0.5	-0.3	-0.5
Portugal	--	-0.1	--	-1.9	-0.1	0.1	-0.8
Turkey	--	0.9	0.5	1.5	1.5	0.5	0.6
Yugoslavia	--	0.2	0.2	-0.9	-0.9	-0.6	--
Middle East	3.4	-0.9	-2.1	-2.4	0.9	1.1	1.2
Of which:							
Egypt	-0.7	0.6	-0.3	-0.1	-0.6	-0.1	-0.3
Israel	-0.3	-0.6	-0.8	-1.2	--	-0.2	-0.2
Western Hemisphere	15.2	5.4	-1.5	-1.9	4.7	2.4	-7.0
Of which:							
Argentina	2.3	-0.2	0.5	1.2	0.8	-0.4	0.5
Brazil	5.3	5.1	-2.9	--	3.9	1.7	-1.7
Chile	0.3	1.2	0.2	-1.0	-1.4	-0.7	-0.7
Colombia	0.6	0.1	--	0.4	-0.5	-0.2	0.3
Ecuador	0.2	-0.1	0.2	0.3	0.2	0.1	-0.1
Mexico	2.8	1.6	-0.8	-0.8	1.3	2.3	-5.1
Venezuela	-1.2	-2.2	0.5	-1.1	-0.3	-0.3	0.6
<u>Memorandum items</u>							
Fifteen heavily indebted countries	11.5	5.4	-3.4	-2.0	2.0	1.7	-9.0
Countries experiencing debt-servicing problems	8.1	6.3	-5.3	-8.2	0.3	0.6	-10.6
Countries without debt-servicing problems	25.3	7.5	11.8	5.2	18.1	6.3	-0.2
Gross concerted lending disbursements 3/	13.3	10.7	5.4	3.3	5.7	3.5	1.7
Total, BIS-based	26.4	11.6	14.4	-2.6	4.9	4.7	-9
Growth rate	7	2	3	-1	1	1	-1
Gross bond issues	3.1	5.0	9.2	4.9	4.9	2.4	3.9

Sources: Bank for International Settlements (BIS); Organization for Economic Cooperation and Development; International Monetary Fund, International Financial Statistics; and Fund staff estimates.

1/ IMF-based data on cross-border lending by banks are derived from the Fund's International banking statistics (IBS) (cross-border interbank accounts by residence of borrowing bank plus international bank credits to nonbanks by residence of borrower), excluding changes attributed to exchange rate movements. BIS-based data are derived from quarterly statistics contained in the BIS's International Banking Developments; the figures shown are adjusted for the effects of exchange rate movements. Differences between the IMF data and the BIS data are mainly accounted for by the different coverages. The BIS data are derived from geographical analyses provided by banks in the BIS reporting area. The IMF data derive cross-border interbank positions from the regular money and banking data supplied by member countries, while the IMF analysis of transactions with nonbanks is based on data from geographical breakdowns provided by the BIS reporting countries and additional banking centers. Neither the IBS series nor the BIS series are fully comparable over time because of expansion of coverage.

2/ Excluding the seven offshore centers (The Bahamas, Bahrain, the Cayman Islands, Hong Kong, the Netherlands Antilles, Panama, and Singapore).

3/ Excluding bridge loans.

Table 25. Estimated Cash Flow from Commercial Banks to  
Fifteen Heavily Indebted Developing Countries, 1985-June 1988

(In millions of U.S. dollars)

	1985	1986	1987	1988 Jan.-June	1985- June 1988
Exchange rate adjusted change in stocks	-3.4	-2.0	2.0	-9.0	-12.4
Minus change in interest arrears included in stocks	-1.6	--	4.4	1.0	3.8
Plus estimated debt conversions <u>1/</u>	1.3	1.6	5.3	7.3	15.5
Plus net loan "write- offs" by banks <u>2/</u>	1.0	1.0	4.0	2.0	8.0
Total flow	0.5	0.6	6.9	-0.7	7.3

Sources: International Monetary Fund, International Banking Statistics; and staff estimates.

1/ Debt conversions under official schemes plus some informal conversions; information on the latter is incomplete.

2/ Rough estimate based on incomplete information.

Table 26. Concerted Lending: Commitments and Disbursements, 1983-November 1988 <sup>1/</sup>

(In millions of U.S. dollars; classified by year of agreement in principle)

	1983		1984		1985		1986		1987		January-November 1988	
	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements
Argentina												
Medium-term loan	1,500	500	3,700	—	—	2,500	—	1,200	1,550	1,050	—	350
Trade deposit facility	—	—	500	—	—	500	—	—	400	200	—	200
Brazil												
Medium-term loan	4,400	4,400	6,500	6,500	—	—	—	—	—	—	—	—
New money bonds	—	—	—	—	—	—	—	—	—	—	1,000	675
Parallel financing with World Bank	—	—	—	—	—	—	—	—	—	—	2,850	2,725
Cofinancing with World Bank	—	—	—	—	—	—	—	—	—	—	750	—
Trade credit and deposit facility	—	—	—	—	—	—	—	—	—	—	600	600
Chile												
Medium-term loan	1,300	1,300	780	780	785	520	—	265	—	—	—	—
Cofinancing arrangement with World Bank	—	—	—	—	300 <sup>2/</sup>	194	—	106	—	—	—	—
Colombia												
Medium-term loan	—	—	—	—	1,000	—	—	970	—	—	—	—
Congo												
Medium-term loan	—	—	—	—	—	—	60	—	—	—	—	—
Costa Rica												
Revolving trade facility	202 <sup>3/</sup>	152	—	50	75	75	—	—	—	—	—	—
Cote d'Ivoire												
Medium-term loan	—	—	104	—	—	104	—	—	—	—	151	—
Ecuador												
Medium-term loan	431	431	200	—	—	200	—	—	350	—	—	—
Mexico												
Medium-term loan <sup>4/</sup>	5,000	5,000	3,800	2,850	—	950	5,000	—	—	4,372 <sup>5/</sup>	—	600
Cofinancing arrangement with World Bank <sup>4/</sup>	—	—	—	—	—	—	1,000 <sup>2/</sup>	—	—	—	—	—
Contingent investment support facility <sup>6/</sup>	—	—	—	—	—	—	1,200	—	—	—	—	—
Growth contingency cofinancing with World Bank <sup>7/</sup>	—	—	—	—	—	—	500 <sup>2/</sup>	—	—	—	—	500

Table 26. (Concluded) Concerted Lending: Commitments and Disbursements, 1983-November 1988 <sup>1/</sup>

(In millions of U.S. dollars; classified by year of agreement in principle)

	1983		1984		1985		1986		1987		January-November 1988	
	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements	Commitments	Disbursements
Nigeria												
Medium-term loan	—	—	—	—	—	—	320	—	—	—	—	—
Panama												
Medium-term loan	278	131	—	147	60	—	—	51	—	9	—	—
Peru												
Medium-term loan	450	250	—	100	—	—	—	—	—	—	—	—
Philippines												
Medium-term loan	—	—	925	—	—	400	—	525	—	—	—	—
Poland												
Short-term revolving trade credit facilities <sup>8/</sup>	180	338	285	240	—	2	198	139	100	100	—	—
Uruguay												
Medium-term loan	240	240	—	—	—	—	—	—	—	—	—	—
Yugoslavia												
Medium-term loan	600	600	—	—	—	—	—	—	—	—	—	—
Trade deposit facility	—	—	—	—	—	—	—	—	—	—	300	300
Total	14,581	13,342	16,794	10,667	2,220	5,445	8,278	3,256	2,400	5,731	5,651	5,950

Sources: Restructuring agreements; and Fund staff estimates.

<sup>1/</sup> These data exclude bridging loans.<sup>2/</sup> These loans have an associated guarantee given by the World Bank in the later maturities equivalent to 50 percent of the nominal amount disbursed.<sup>3/</sup> Agreement in principle as of December 1982.<sup>4/</sup> Commitments in 1986 could have been disbursed upon contingencies only through June 30, 1988.<sup>5/</sup> A bridge loan of \$500 million was disbursed in December 1986 and repaid when the first concerted lending disbursement of \$3.5 billion was disbursed in April 1987.<sup>6/</sup> Commitments in 1986 could have been disbursed upon contingencies only through April 16, 1988.<sup>7/</sup> Commitments in 1986 could have been disbursed upon contingencies only through March 30, 1988.<sup>8/</sup> Utilization of these facilities varied over time, but the amounts of the facilities had to be reconstituted on a six-month basis.



Table 27. Long-Term Bank Credit Commitments to Developing Countries, 1982-Third Quarter 1988 <sup>1/</sup>

(In billions of U.S. dollars)

	1982	1983	1984 <sup>2/</sup>	1985 <sup>3/</sup>	1986 <sup>4/</sup>	1987 <sup>5/</sup>	1987 First Three Quarters	1988 <sup>6/</sup> First Three Quarters
Developing countries <sup>7/</sup>	42.4	33.7	31.3	18.2	25.4	20.0	14.6	16.1
Spontaneous lending	42.4	19.8	14.8	16.0	17.3	17.6	12.6	10.4
Concerted lending <sup>8/</sup>	...	13.9	16.5	2.2	8.1	2.3	2.0	5.7
Capital importing countries <sup>7/</sup>	40.4	31.4	30.2	16.6	24.0	19.8	14.5	16.0
Spontaneous lending	40.4	17.5	13.7	14.4	15.9	17.5	12.5	10.3
Concerted lending <sup>8/</sup>	...	13.9	16.5	2.2	8.1	2.3	2.0	5.7
Africa	2.7	2.7	0.6	1.5	1.8	0.7	0.6	0.6
Spontaneous lending	2.7	2.7	0.5	1.5	1.4	0.7	0.6	0.4
Concerted lending <sup>8/</sup>	...	--	0.1	--	0.4	--	--	0.2
Asia	11.1	9.4	9.4	7.5	8.2	9.6	7.0	5.3
Spontaneous lending	11.1	9.4	8.5	7.5	8.2	9.6	7.0	5.3
Concerted lending <sup>8/</sup>	...	--	0.9	--	--	--	--	--
Europe	3.7	3.5	3.7	5.0	5.4	6.5	4.4	3.5
Spontaneous lending	3.7	2.9	3.7	5.0	5.4	6.5	4.4	3.2
Concerted lending <sup>8/</sup>	...	0.6	--	--	--	--	--	0.3
Middle East	0.4	0.6	0.4	0.3	0.1	0.3	0.3	0.2
Western Hemisphere	22.5	15.2	16.1	2.4	8.5	2.7	2.2	6.4
Spontaneous lending	22.5	1.9	0.6	0.2	0.8	0.4	0.2	1.2
Concerted lending <sup>8/</sup>	...	13.3 <sup>9/</sup>	15.5	2.2	7.7	2.3	2.0	5.2
Memorandum items								
Offshore banking centers	2.2	1.5 <sup>10/</sup>	0.9	0.4 <sup>11/</sup>	0.7	0.3	0.2	0.3
Developing countries including offshore banking centers	44.6	35.2	32.2	18.5	26.1	20.3	14.8	16.4

Sources: Organization for Economic Cooperation and Development, Financial Statistics Monthly; and Fund staff estimates.

<sup>1/</sup> Owing to rounding, components may not add.

<sup>2/</sup> Includes agreements in principle with Argentina, Cote d'Ivoire, Ecuador, and the Philippines.

<sup>3/</sup> Includes \$0.1 billion revolving trade facility for Costa Rica.

<sup>4/</sup> Includes agreements in principle with the Congo, Mexico, and Nigeria.

<sup>5/</sup> Includes agreement in principle with Ecuador.

<sup>6/</sup> Includes agreements in principle with Côte d'Ivoire and Yugoslavia.

<sup>7/</sup> Excludes offshore banking centers.

<sup>8/</sup> Concerted lending refers to bank credit commitments obtained during 1983-87 and coordinated by a bank advisory committee (i.e., Argentina, Brazil, Chile, Colombia, the Congo, Cote d'Ivoire, Ecuador, Mexico, Nigeria, Panama, Peru, the Philippines, Uruguay, and Yugoslavia).

<sup>9/</sup> Excludes the extension of a bridging loan of \$1.3 billion to Argentina and \$0.2 billion revolving trade facility to Costa Rica.

<sup>10/</sup> Includes \$0.3 billion concerted lending commitment to Panama.

<sup>11/</sup> Includes \$0.1 billion concerted lending commitment to Panama.

Table 28. Bank Credit Commitments by Country of Destination, 1982-Third Quarter 1988 1/

(In billions of U.S. dollars)

	1982	1983	1984 2/	1985 3/	1986 4/	1987 5/	1987 First Three Quarters	1988 6/ First Three Quarters
Industrial countries	51.6	27.9	29.9	30.2	37.9	54.5	37.0	63.4
Australia	5.9	2.7	2.4	2.6	5.0	3.1	2.2	3.0
Belgium	2.0	0.1	0.9	0.7	0.8	0.3	0.3	0.9
Canada	7.0	2.1	2.7	7.0	6.2	2.1	1.4	2.8
Denmark	1.6	2.2	0.7	0.3	0.5	0.8	0.7	0.5
France	6.6	1.5	2.0	4.1	3.7	4.0	2.3	5.4
Italy	5.3	2.8	4.7	5.1	6.0	5.7	4.5	3.1
Spain	2.0	2.7	3.5	2.6	4.5	1.2	0.9	1.2
Sweden	2.0	2.6	0.4	1.0	0.1	0.5	0.3	1.7
United Kingdom	2.2	0.9	3.3	1.5	2.2	12.9	10.6	17.5
United States	10.0	7.3	5.3	3.5	5.2	15.9	8.6	21.9
Other	7.0	3.0	4.0	1.8	3.7	8.0	5.2	5.4
Centrally planned economies	0.2	0.5	1.9	3.5	2.1	1.5	1.3	0.4
Czechoslovakia	--	0.1	--	0.1	0.3	0.2	0.2	0.2
German Democratic Republic	0.1	0.4	0.7	1.2	0.1	0.2	0.1	--
U.S.S.R.	0.1	--	0.9	1.5	1.3	0.8	0.6	0.2
Other	--	--	0.3	0.7	0.4	0.3	0.4	--
Developing countries 7/	42.4	33.7	31.3	18.2	25.4	20.0	14.6	16.1
Capital importing developing countries 7/	40.4	31.4	30.2	16.6	24.0	19.8	14.5	16.0
Africa	2.7	2.7	0.6	1.5	1.8	0.7	0.6	0.6
Cote d'Ivoire	0.5	--	0.1	0.1	--	--	--	0.2
Morocco	0.2	0.1	--	0.1	--	--	--	0.1
Nigeria	0.4	0.2	--	--	0.3	--	--	--
South Africa	1.0	0.2	0.2	--	--	--	--	--
Other	0.6	2.2	0.3	1.3	1.5	0.7	0.6	0.3
Asia	11.1	9.4	9.4	7.5	8.2	9.6	7.0	5.3
China	0.3	0.1	0.2	2.3	1.9	3.3	2.5	1.9
India	0.4	0.7	0.6	0.2	1.2	1.8	1.5	1.2
Indonesia	1.1	2.0	1.6	0.1	1.0	1.6	0.7	0.2
Korea	3.6	3.5	3.7	3.7	1.5	2.0	1.7	0.9
Malaysia	2.4	1.4	1.0	0.2	1.2	0.3	0.2	0.3
Philippines	1.1	0.6	0.9	--	--	--	--	--
Thailand	0.3	0.4	0.8	0.7	1.1	0.3	0.3	0.7
Other	1.9	0.7	0.6	0.3	0.3	0.3	0.1	0.1
Europe	3.7	3.5	3.7	5.0	5.4	6.5	4.4	3.5
Greece	0.9	1.2	1.1	0.6	1.2	0.9	0.7	0.7
Hungary	0.3	0.5	0.8	0.9	0.8	1.4	0.8	0.2
Portugal	1.5	1.0	1.0	1.6	1.4	1.4	1.2	0.9
Turkey	0.3	0.3	0.4	1.6	2.0	2.6	1.7	1.4
Yugoslavia	0.5	0.6	--	--	--	--	--	0.3
Other	0.2	--	0.4	0.3	--	0.2	--	--
Middle East	0.4	0.6	0.4	0.3	0.1	0.3	0.3	0.2
Egypt	0.4	0.1	--	0.1	--	--	--	--
Jordan	--	0.3	0.3	0.2	--	0.2	0.2	0.2
Other	--	0.1	--	--	0.1	0.1	0.1	--
Western Hemisphere	22.5	15.2	16.1	2.4	8.5	2.7	2.2	6.4
Argentina	1.3	1.8	4.2	--	--	2.1	2.1	--
Brazil	7.3	4.6	6.5	--	--	--	--	5.2
Chile	1.2	1.4	0.8	1.1	--	--	--	0.2
Colombia	0.6	0.4	0.4	1.1	0.2	0.1	--	1.0
Ecuador	0.1	0.4	0.2	--	0.2	0.4	--	--
Mexico	6.5	5.1	3.8	--	7.7	--	--	--
Peru	1.1	0.5	--	--	--	--	--	--
Venezuela	4.0	0.2	--	--	--	--	--	--
Other	0.4	0.2	0.2	0.2	0.4	0.1	0.1	--
Offshore banking centers	2.2	1.5	0.9	0.4	0.7	0.3	0.2	0.3
International organizations and unallocated	1.8	3.9	3.5	4.0	5.2	11.7	1.1	6.5
Total	98.2	67.5	67.5	56.3	71.3	88.1	54.8	86.8

Sources: Organization for Economic Cooperation and Development, Financial Statistics Monthly; and Fund staff estimates.

1/ Owing to rounding, components may not add.

2/ Includes agreements in principle with Argentina, Cote d'Ivoire, Ecuador, and the Philippines.

3/ Includes \$0.1 billion revolving trade facility for Costa Rica.

4/ Includes agreements in principle with the Congo, Mexico, and Nigeria.

5/ Includes agreement in principle with Ecuador.

6/ Includes agreements in principle with Côte d'Ivoire and Yugoslavia.

7/ Excludes offshore banking centers.

Table 29. Long-Term Bank Credit Commitments, 1982-Third Quarter 1988 <sup>1/</sup>

(In billions of U.S. dollars)

	1982	1983	1984 <sup>2/</sup>	1985 <sup>3/</sup>	1986 <sup>4/</sup>	1987 <sup>5/</sup>	1987 First Three Quarters	1988 <sup>6/</sup> First Three Quarters
(Long-term external credit commitments)								
Industrial countries	51.6	27.9	29.9	30.2	37.9	54.5	37.0	63.4
Seven major	31.2	15.0	18.2	21.2	24.3	42.8	28.1	51.6
Other	20.4	12.9	11.7	9.0	13.7	11.7	8.9	11.9
Developing countries <sup>7/</sup>	42.4	33.7	31.3	18.2	25.4	20.0	14.6	16.1
Capital importing <sup>7/</sup>	40.4	31.4	30.2	16.6	24.0	19.8	14.5	16.0
Africa	2.7	2.7	0.6	1.5	1.8	0.7	0.6	0.6
Asia	11.1	9.4	9.4	7.5	8.2	9.6	7.0	5.3
Europe	3.7	3.5	3.7	5.0	5.4	6.5	4.4	3.5
Middle East	0.4	0.6	0.4	0.3	0.1	0.3	0.3	0.2
Western Hemisphere	22.5	15.2	16.1	2.4	8.5	2.7	2.2	6.4
Offshore banking centers	2.2	1.5	0.9	0.4	0.7	0.3	0.2	0.3
Centrally planned economies <sup>8/</sup>	0.2	0.5	1.9	3.5	2.1	1.5	1.3	0.4
International organizations and unallocated	1.8	3.9	3.5	4.0	5.2	11.7	1.7	6.5
Total	98.2	67.5	67.5	56.3	71.3	88.1	54.8	86.8
(Other international long-term bank facilities)								
Industrial countries	3.1	12.4	47.8	44.1	25.2	27.5	16.2	15.6
Seven major	1.4	10.6	33.9	33.6	14.4	20.0	11.1	13.3
Other	1.7	1.8	13.9	10.5	10.8	7.5	5.1	2.4
Developing countries <sup>7/</sup>	1.9	0.8	6.5	2.5	3.7	1.4	1.2	1.1
Capital importing <sup>7/</sup>	1.9	0.7	6.2	2.2	3.7	1.4	1.2	1.1
Africa	—	—	0.2	—	—	—	—	0.1
Asia	0.3	0.4	1.1	1.3	2.0	0.9	0.8	0.7
Europe	0.4	0.3	0.7	0.7	1.5	0.4	0.4	0.3
Middle East	—	—	—	—	—	—	—	—
Western Hemisphere	1.2	—	4.3	0.1	0.1	—	—	—
Offshore banking centers	0.2	0.2	0.4	0.2	0.2	0.3	0.3	0.2
Centrally planned economies <sup>8/</sup>	—	—	—	—	0.5	0.2	0.2	0.1
International organizations and unallocated	0.2	0.1	0.6	2.1	0.3	1.7	1.7	—
Total	5.4	13.5	55.3	48.9	30.0	31.2	19.7	16.9
(Total international commitments)								
Industrial countries	54.6	40.2	77.6	74.2	63.2	82.0	53.2	79.0
Seven major	32.6	25.5	52.1	54.8	38.7	62.8	39.2	64.9
Other	22.1	14.7	25.5	19.5	24.4	19.2	14.0	14.3
Developing countries <sup>7/</sup>	44.3	34.5	37.8	20.7	29.1	21.4	15.8	17.2
Capital importing <sup>7/</sup>	42.3	32.1	36.4	18.8	27.7	21.2	15.7	17.1
Africa	2.7	2.7	0.8	1.5	1.8	0.7	0.6	0.7
Asia	11.4	9.8	10.5	8.8	10.2	10.5	7.8	6.0
Europe	4.1	3.8	4.5	5.7	6.9	6.9	4.8	3.8
Middle East	0.4	0.6	0.4	0.3	0.1	0.3	0.3	0.2
Western Hemisphere	23.7	15.2	20.4	2.4	8.6	2.7	2.2	6.4
Offshore banking centers	2.4	1.6	1.4	0.6	0.9	0.6	0.5	0.5
Centrally planned economies <sup>8/</sup>	0.2	0.5	1.9	3.5	2.6	1.7	1.5	0.5
International organizations and unallocated	2.0	4.0	4.1	6.2	5.5	13.4	3.4	6.5
Total	103.6	81.0	122.7	105.1	101.3	119.3	74.5	103.7
Memorandum item:								
Other international long-term bank facilities, excluding merger- related facilities	5.4	9.5	28.8	42.9	29.3	31.2	19.7	16.9

Sources: Organization for Economic Cooperation and Development, Financial Statistics Monthly; and Fund staff estimates.<sup>1/</sup> Owing to rounding, components may not add.<sup>2/</sup> Includes agreements in principle with Argentina, Côte d'Ivoire, Ecuador, and the Philippines.<sup>3/</sup> Includes \$0.1 billion revolving trade facility for Costa Rica.<sup>4/</sup> Includes agreements in principle with Congo, Mexico, and Nigeria.<sup>5/</sup> Includes agreement in principle with Ecuador.<sup>6/</sup> Includes agreements in principle with Côte d'Ivoire and Yugoslavia.<sup>7/</sup> Excludes offshore banking centers.<sup>8/</sup> Excludes Fund member countries.

Table 30. Concerted Short- and Medium-Term Facilities  
Outstanding at End of Period, 1983-November 1988

(In millions of U.S. dollars)

	1983	1984	1985	1986	1987	November 1988
Argentina						
Trade deposit facility	—	—	500	500	500	700
Stand-by money market facility	—	1,400	1,400	1,400	1,400	1,400
Trade credit maintenance facility	—	1,200 <u>1/</u>	1,200 <u>1/</u>	1,200 <u>1/</u>	1,200 <u>1/</u>	1,200
Brazil						
Interbank exposure	5,579	5,388	5,388	5,253	4,651	4,651
Trade-related	10,172	9,800	9,800	9,582	10,189	10,189
Interim financing	—	—	—	—	715	240
Chile						
Trade-related	1,700	1,700	1,700	1,700	1,700	1,700
Nontrade-related	1,160	(1,160) <u>2/</u>	—	—	—	—
Costa Rica						
Revolving trade facilities	152	202	277	277	277	277
Ecuador						
Trade-related credits	700	700	700	700	500	500
Nontrade credits	(580) <u>2/</u>	—	—	—	—	—
Madagascar						
Short-term debt	—	(117) <u>2/</u>	—	—	—	—
Mexico						
Interbank exposure <u>3/</u>	5,200	5,200	5,200	5,200	5,200	5,200
Morocco						
Short-term debt	—	610	610	610	610	610
Trade credit maintenance facility	—	—	—	80 <u>1/</u>	80 <u>1/</u>	80 <u>1/</u>
Mozambique						
Short-term debt	—	—	—	—	(86) <u>2/</u>	—
Panama						
Money-market facility	133	133	133	133	133	133
Trade-related facilities	84	84	84	84	84	84

Table 30 (Concluded). Concerted Short- and Medium-Term Facilities  
Outstanding at End of Period, 1983-November 1988

(In millions of U.S. dollars)

	1983	1984	1985	1986	1987	November 1988
Peru						
Short-term working capital	1,200	965 <u>4/</u>	... <u>4/</u>	... <u>4/</u>	... <u>4/</u>	... <u>4/</u>
Short-term trade-related credit lines	800	800 <u>4/</u>	... <u>4/</u>	... <u>4/</u>	... <u>4/</u>	... <u>4/</u>
Philippines						
Short-term debt of						
Public sector	—	(1,183) <u>2/</u>	—	—	—	—
Private financial sector	—	(1,594) <u>2/</u>	—	—	—	—
Corporate sector	—	(448) <u>2/</u>	—	—	—	—
Revolving trade facility	—	2,965	2,965	2,965	2,965	2,965
Poland						
Short-term revolving trade credit facilities	534	774	772	900	1,000	1,000
Uruguay						
Nontrade-related credits	(359) <u>2/</u>	—	—	—	—	—
Treasury notes outstanding	84	128	171	171	171	171
Yugoslavia						
Revolving trade facility	600	600	600	600	600	600
Nontrade-related facility	200	200	200	200	200	200
Total <u>5/</u>	28,298	32,849	31,700	31,555	32,175	31,900

Sources: Restructuring agreements; and Fund staff estimates.

1/ Converted into medium-term facility.

2/ Converted into medium-term debt.

3/ Data indicate limits rather than actual exposure.

4/ The 1984 agreement with the Steering Committee was not signed due, inter alia, to Peru's nonpayment of interest since July 1984, and no agreement is currently in effect for these facilities.

5/ Total excludes amounts converted into medium-term debt, which are given in parentheses.

Table 31. International Bond Issues by Developing Countries, 1983-Third Quarter 1988 <sup>1/</sup>

(In millions of U.S. dollars)

	1983	1984	1985	1986	1987	First Three Quarters 1987	First Three Quarters 1988
Developing countries <sup>2/</sup>	3,091.1	4,978.0	9,205.4	4,863.1	4,863.4	3,879.5	5,440.3
Capital importing developing countries <sup>2/</sup>	3,091.1	4,703.0	9,180.4	4,863.1	4,863.4	3,879.5	5,440.3
Africa	592.5	1,013.9	1,322.5	125.6	49.2	—	363.6
Of which:							
Algeria	—	—	500.0	125.6	49.2	—	363.6
South Africa	532.5	1,013.9	802.2	—	—	—	—
Asia	2,171.1	2,951.0	6,005.4	2,915.4	2,410.7	1,925.1	2,155.2
Of which:							
China	20.5	81.7	972.8	1,362.1	1,415.1	1,129.2	642.2
India	60.0	297.6	417.8	323.2	377.0	227.3	614.6
Indonesia	365.7	50.0	—	300.0	50.0	50.0	164.7
Korea	546.8	1,056.0	1,730.9	783.0	332.3	282.3	80.0
Malaysia	884.6	1,141.2	2,001.9	43.0	215.6	215.6	360.6
Philippines	—	—	—	—	—	—	—
Thailand	253.5	283.3	861.7	50.0	—	—	261.0
Europe	117.8	630.7	1,601.7	1,110.0	2,018.2	1,820.7	2,602.5
Of which:							
Greece	41.6	200.8	744.7	150.3	539.1	341.6	314.9
Hungary	—	40.5	447.1	290.5	554.6	554.6	539.5
Portugal	76.2	389.4	347.4	502.5	613.0	613.0	943.2
Turkey	—	—	62.5	166.7	311.5	311.5	804.9
Middle East	175.0	—	82.0	—	35.0	35.0	—
Of which:							
Egypt	40.0	—	60.0	—	—	—	—
Israel	135.0	—	22.0	—	35.0	35.0	—
Western Hemisphere	65.0	107.4	168.8	712.1	350.3	98.7	319.0
Of which:							
Argentina	—	—	—	—	195.0	—	—
Brazil	—	—	—	300.0	—	—	—
Chile	—	—	—	—	—	—	—
Colombia	15.0	—	—	39.0	50.0	50.0	—
Mexico	—	—	49.0	313.3	—	—	— <sup>3/</sup>
Peru	—	—	—	—	—	—	—
Venezuela	—	—	—	—	—	—	200.0
Memorandum items:							
Offshore banking centers	153.8	285.6	383.3	568.7	228.0	228.0	274.5
Developing countries, including offshore banking centers	3,275.2	5,263.6	9,588.7	5,431.8	5,091.4	4,107.5	5,714.8

Source: Organization for Economic Cooperation and Development, Financial Statistics Monthly.

<sup>1/</sup> Foreign bonds and Eurobonds.

<sup>2/</sup> Excludes offshore banking centers.

<sup>3/</sup> Excludes issue of collateralized Mexican bonds related to the Mexican debt exchange concluded in February 1988.

Table 32. Terms of Long-Term Bank Credit Commitments, 1982-Third Quarter 1988 <sup>1/</sup>

(In percent, unless otherwise indicated)

	1982	1983	1984 <sup>2/</sup>	1985	1986 <sup>3/</sup>	1987 <sup>4/</sup>	First Three Quarters 1988 <sup>5/</sup>
Six-month Eurodollar interbank rate (average)	13.60	9.93	11.29	8.64	6.85	7.30	8.67
U.S. prime rate (average)	14.86	10.79	12.04	9.93	8.35	8.21	9.71
Average maturity (in years/months)	7/7	7/3	7/9	7/9	7/1	7/7	6/1
OECD countries	8/3	7/8	7/4	7/5	6/5	6/2	5/4
Centrally planned economies	4/9	4/5	5/11	7/5	7/9	8/1	8/9
Oil exporting countries	6/0	7/2	7/7	7/2	7/9	10/2	8/5
Other developing countries	7/0	7/0	8/11	8/11	8/4	10/11	10/3
Of which: spontaneous	...	7/4	8/1	8/2	8/4	9/1	8/11
Average spread	0.77	1.15	0.93	0.63	0.40	0.44	0.38
OECD countries	0.56	0.65	0.55	0.46	0.36	0.34	0.33
Centrally planned economies	1.03	1.18	0.88	0.55	0.26	0.24	0.31
Oil exporting countries	0.94	0.85	0.76	0.80	0.46	0.72	0.73
Other developing countries	1.14	1.70	1.44	0.99	0.67	0.69	0.67
Of which: spontaneous	...	0.76	0.69	0.66	0.67	0.42	0.54

Sources: Organization for Economic Cooperation and Development, Financial Market Trends; International Monetary Fund, International Financial Statistics (for Eurodollar and prime rates).

<sup>1/</sup> OECD country classification.

<sup>2/</sup> Does not include terms of agreements in principle with Argentina, Côte d'Ivoire, Ecuador and the Philippines.

<sup>3/</sup> Does not include terms of agreement in principle with Congo, Mexico, and Nigeria.

<sup>4/</sup> Does not include terms of agreement in principle with Ecuador.

<sup>5/</sup> Does not include terms of agreement in principle with Côte d'Ivoire and Yugoslavia.

Table 33. Average Spreads on Bank Financial Packages for Developing Countries, 1983-November 1988

(In basis points over LIBOR)

	1983	1984	1985	1986	1987	Jan.- Nov. 1988
Spontaneous commitments <u>1/</u>	80	71	71	61	48	56 <u>2/</u>
Concerted commitments <u>3/</u>						
All	225	185	179	84	89	83
Three largest debtors <u>4/</u>	225	186	...	81	88	81
Others	223	174	179	140	100	108
Restructuring of existing debt <u>3/</u>						
All	193	131	138	95	80	83
Three largest debtors <u>4/</u>	193	128	...	85	81	81
Others	195	136	138	140	80	88
Memorandum items:						
Difference between spreads						
Concerted/spontaneous	145	114	108	23	41	...
Restructuring/spontaneous	113	60	67	34	32	...
Concerted/restructuring	32	54	41	-11	9	--
Largest/others						
Concerted	2	12	...	-59	-12	-27
Restructurings	-2	-8	...	-55	1	-7

Sources: Organization for Economic Cooperation and Development, Financial Market Trends; and Fund staff estimates.

1/ Weighted average of nonconcerted bank commitments to "Other LDCs" and "Oil-exporters" as defined by the OECD.

2/ Third quarter 1988.

3/ Based on term sheets agreed in principle.

4/ Argentina, Brazil, and Mexico.



Table 34. External Assets of BIS Reporting Banks by Maturity and Undisbursed Credit Commitments, December 1983-December 1987 1/

(In billions of U.S. dollars)

	December 1983			December 1984 2/			December 1985 3/			December 1986 3/			December 1987		
	External assets			External assets			External assets			External assets			External assets		
	Total	Up to and including one year	Undisbursed credit commitments	Total	Up to and including one year	Undisbursed credit commitments	Total	Up to and including one year	Undisbursed credit commitments	Total	Up to and including one year	Undisbursed credit commitments	Total	Up to and including one year	Undisbursed credit commitments
Claims on:															
Industrial countries outside the BIS reporting area	72.1	30.9	22.0	80.8	36.3	21.7	51.7	24.4	20.8	67.0	32.4	20.4	80.9	41.0	24.1
Australia	18.2	6.4	8.8	23.0	9.4	9.6	26.2	11.5	12.3	34.4	15.8	12.2	39.4	18.2	15.7
Finland 3/	9.4	5.5	2.6	11.3	6.9	1.4	--	--	--	--	--	--	--	--	--
Norway	10.7	4.6	4.0	11.3	5.4	3.9	14.1	7.9	4.5	17.5	10.0	3.9	23.2	14.3	3.9
Spain 3/	26.9	11.0	3.4	27.1	11.0	3.2	--	--	--	--	--	--	--	--	--
Other	6.9	3.4	3.2	8.1	3.6	3.6	11.4	5.0	4.0	15.1	6.6	4.3	18.3	8.5	4.5
Developing countries	468.6	210.2	75.1	471.1	193.7	68.1	503.7	218.8	68.8	518.3	210.5	68.9	547.9	222.7	77.6
Capital importing developing countries	442.3	188.6	68.0	444.8	173.2	60.4	476.7	197.9	62.3	491.5	190.0	64.1	518.9	200.6	72.3
Africa	60.5	24.2	13.3	59.5	25.1	11.7	63.2	27.5	10.0	66.6	31.7	7.4	73.2	33.4	8.8
Cote d'Ivoire	(3.1)	(0.8)	(0.2)	(2.7)	(0.6)	(0.1)	(2.9)	(0.7)	(0.2)	(3.3)	(0.9)	(0.3)	(3.6)	(1.5)	(0.1)
Morocco	(3.9)	(1.1)	(0.2)	(3.8)	(1.2)	(0.3)	(4.5)	(1.7)	(0.3)	(4.9)	(2.3)	(0.2)	(5.2)	(2.3)	(0.5)
Nigeria	(10.0)	(2.7)	(2.6)	(8.9)	(2.6)	(1.9)	(9.2)	(4.0)	(1.2)	(9.9)	(5.1)	(0.7)	(10.8)	(4.5)	(0.7)
South Africa	(18.4)	(11.8)	(3.6)	(18.9)	(12.8)	(3.5)	(17.0)	(11.4)	(2.4)	(15.6)	(11.0)	(1.7)	(16.0)	(9.4)	(1.5)
Zaire	(0.7)	(0.2)	(—)	(0.7)	(0.3)	(0.1)	(0.8)	(0.3)	(0.1)	(0.8)	(0.3)	(0.1)	(1.0)	(0.4)	(0.2)
Other	(24.4)	(7.6)	(6.7)	(24.5)	(7.6)	(5.8)	(28.8)	(9.4)	(5.8)	(32.1)	(12.1)	(4.4)	(36.6)	(15.3)	(5.8)
Asia	80.9	39.4	21.4	84.7	39.2	21.3	93.9	42.5	23.1	99.9	43.2	24.9	113.1	52.2	27.9
China	(2.2)	(1.4)	(3.2)	(3.5)	(2.4)	(3.4)	(6.6)	(4.7)	(5.3)	(6.6)	(3.1)	(6.3)	(12.0)	(4.7)	(8.0)
India	(2.6)	(1.1)	(2.1)	(3.4)	(1.3)	(2.5)	(4.9)	(1.7)	(2.5)	(6.7)	(2.7)	(2.2)	(8.4)	(2.8)	(2.2)
Indonesia	(11.8)	(4.6)	(3.2)	(12.9)	(5.4)	(3.6)	(14.1)	(6.0)	(3.8)	(15.9)	(6.4)	(3.7)	(17.7)	(6.5)	(4.2)
Korea	(25.7)	(14.5)	(4.4)	(26.0)	(13.0)	(4.4)	(28.7)	(13.7)	(4.5)	(27.2)	(12.4)	(5.9)	(23.8)	(13.0)	(3.7)
Malaysia	(8.7)	(2.1)	(1.6)	(10.6)	(2.4)	(1.8)	(10.1)	(2.1)	(1.4)	(10.8)	(2.3)	(1.1)	(10.0)	(1.8)	(1.0)
Philippines	(13.8)	(7.3)	(1.6)	(12.4)	(6.6)	(1.0)	(12.9)	(6.4)	(1.1)	(13.9)	(5.5)	(0.9)	(13.1)	(4.1)	(0.7)
Thailand	(5.8)	(3.5)	(1.4)	(6.5)	(3.5)	(1.4)	(6.9)	(2.9)	(1.4)	(6.7)	(2.5)	(2.0)	(7.5)	(2.4)	(2.4)
Other	(10.3)	(4.9)	(3.9)	(9.4)	(4.6)	(3.2)	(9.7)	(5.0)	(3.1)	(12.1)	(8.3)	(2.8)	(20.6)	(16.9)	(3.7)

Table 3<sup>4</sup> (concluded). External Assets of BIS Reporting Banks by Maturity and Undisbursed Credit Commitments, December 1983-December 1987 1/

(In billions of U.S. dollars)

	December 1983			December 1984 2/			December 1985 3/			December 1986 3/			December 1987		
	External assets	Up to and including one year	Undisbursed credit commitments	External assets	Up to and including one year	Undisbursed credit commitments	External assets	Up to and including one year	Undisbursed credit commitments	External assets	Up to and including one year	Undisbursed credit commitments	External assets	Up to and including one year	Undisbursed credit commitments
Europe	59.2	18.8	5.1	56.4	18.0	5.9	65.1	22.9	6.8	68.0	23.3	7.2	75.4	25.0	9.3
Greece	(11.8)	(3.8)	(2.1)	(12.3)	(4.0)	(2.0)	(14.2)	(5.0)	(1.4)	(14.4)	(4.9)	(1.1)	(15.1)	(5.3)	(1.6)
Hungary	(7.0)	(3.2)	(0.3)	(6.8)	(2.7)	(0.6)	(8.6)	(3.5)	(1.1)	(10.0)	(3.4)	(1.2)	(12.4)	(3.2)	(1.5)
Poland	(10.9)	(2.7)	(0.3)	(8.7)	(2.1)	(0.3)	(9.9)	(2.1)	(0.3)	(10.7)	(2.4)	(0.3)	(11.9)	(3.3)	(0.5)
Portugal	(10.8)	(4.0)	(0.8)	(10.8)	(3.5)	(1.1)	(11.4)	(3.5)	(1.3)	(10.1)	(3.1)	(1.3)	(10.5)	(3.2)	(1.4)
Romania	(3.9)	(0.9)	(0.2)	(3.1)	(0.7)	(0.2)	(3.0)	(0.8)	(0.2)	(2.8)	(1.0)	(0.2)	(2.4)	(...)	(...)
Turkey	(4.4)	(1.2)	(0.6)	(4.6)	(1.9)	(1.0)	(6.5)	(3.4)	(1.6)	(8.3)	(4.3)	(2.2)	(11.1)	(...)	(3.1)
Yugoslavia	(9.8)	(2.7)	(0.5)	(9.3)	(2.6)	(0.5)	(10.3)	(4.1)	(0.5)	(10.3)	(3.7)	(0.6)	(9.9)	(3.1)	(0.5)
Other	(0.6)	(0.3)	(0.3)	(0.8)	(0.3)	(0.2)	(1.2)	(0.3)	(0.4)	(1.4)	(0.3)	(0.3)	(2.1)	(6.9)	(0.7)
Middle East	15.5	10.8	3.6	14.8	10.2	3.3	16.0	10.0	3.5	15.7	9.8	3.4	16.2	9.5	4.2
Egypt	(5.6)	(3.7)	(2.0)	(5.8)	(3.6)	(1.8)	(6.7)	(3.5)	(1.9)	(6.5)	(3.3)	(1.9)	(6.8)	(3.4)	(2.1)
Israel	(6.4)	(4.4)	(0.7)	(5.3)	(3.7)	(0.5)	(5.6)	(3.9)	(0.7)	(5.2)	(3.4)	(0.5)	(5.0)	(2.9)	(0.8)
Other	(3.5)	(2.7)	(0.9)	(3.7)	(2.9)	(1.0)	(3.7)	(2.6)	(0.9)	(4.0)	(3.1)	(1.0)	(4.4)	(3.2)	(1.3)
Western Hemisphere	226.2	95.4	24.6	229.4	80.7	18.2	238.4	94.9	18.9	241.2	81.9	21.2	241.0	80.5	22.1
Argentina	(26.8)	(14.1)	(1.7)	(25.3)	(14.0)	(1.9)	(29.4)	(15.3)	(2.0)	(31.1)	(10.3)	(1.4)	(33.2)	(10.8)	(2.1)
Brazil	(60.6)	(16.9)	(5.0)	(65.4)	(16.4)	(3.7)	(66.7)	(20.7)	(4.5)	(69.4)	(25.6)	(4.9)	(69.2)	(28.6)	(4.8)
Chile	(12.5)	(4.6)	(1.2)	(13.2)	(3.7)	(0.7)	(14.3)	(5.4)	(1.0)	(14.2)	(5.5)	(0.7)	(12.8)	(4.6)	(0.6)
Colombia	(6.8)	(3.2)	(0.8)	(6.5)	(2.6)	(0.9)	(6.4)	(2.8)	(1.2)	(6.7)	(2.4)	(1.2)	(6.3)	(2.0)	(1.2)
Ecuador	(4.8)	(2.3)	(0.5)	(4.7)	(1.7)	(0.3)	(5.0)	(2.0)	(0.6)	(5.3)	(1.8)	(0.7)	(5.3)	(1.9)	(0.6)
Mexico	(69.3)	(29.4)	(8.6)	(70.9)	(17.1)	(3.5)	(71.7)	(20.3)	(3.3)	(70.9)	(16.5)	(4.3)	(69.9)	(15.7)	(4.3)
Peru	(5.1)	(2.3)	(0.8)	(4.8)	(2.1)	(0.7)	(4.7)	(2.4)	(0.5)	(4.5)	(2.6)	(0.4)	(4.2)	(2.5)	(0.2)
Venezuela	(27.6)	(16.3)	(0.9)	(26.7)	(17.4)	(0.9)	(27.1)	(19.6)	(1.0)	(25.9)	(11.3)	(1.4)	(25.2)	(6.7)	(1.7)
Other	(12.7)	(6.3)	(4.1)	(11.9)	(5.7)	(5.6)	(13.1)	(6.4)	(4.8)	(13.2)	(5.9)	(6.2)	(14.9)	(7.7)	(6.6)
Centrally planned economies	30.0	12.9	6.2	29.6	12.8	4.2	40.2	18.3	7.6	51.4	22.5	6.6	60.1	25.5	9.1
Czechoslovakia	2.7	0.9	0.2	2.4	0.8	0.4	2.7	1.2	0.6	3.1	1.7	0.8	4.2	2.3	1.1
German Democratic Republic	8.4	3.3	0.8	8.4	3.7	1.1	10.3	4.4	1.8	12.2	4.7	1.7	15.0	5.8	2.3
U.S.S.R.	15.6	7.0	4.8	15.8	6.6	1.9	22.0	10.0	4.3	28.7	12.4	3.2	32.2	13.3	4.2
Other	3.3	1.7	0.4	3.0	1.7	0.8	5.2	2.7	0.9	7.4	3.7	0.9	8.7	4.1	1.5
Total	570.8	254.0	103.2	581.5	242.8	94.0	595.6	261.5	97.2	636.7	265.4	95.9	688.9	289.1	110.8

Source: Bank for International Settlements, The Maturity Distribution of International Bank Lending.

1/ Up to June 1984, the reporting area for these data includes branches of U.S. banks and the affiliates in offshore reporting centers of banks in other countries. The December 1984 data are on a worldwide consolidated basis for all reporting countries. This series is only available semiannually and has longer lags than the data presented in quarterly publications of the Bank for International Settlements on international capital markets developments.

2/ Figures are based on fully consolidated reports of banks and should not be directly compared with 1983 figures.

3/ As of December 1985, Finland and Spain are included in the reporting area.

Table 35. Change in Claims of U.S. Banks on Developing Countries, 1983-First Half 1988 1/

(In billions of U.S. dollars; and in percent)

	1983		1984		1985		1986		1987		First Half 1988 2/	
	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate
Developing countries 3/												
All banks	5.8	3.8	-3.8	-2.4	-13.3	-8.5	-13.5	-9.4	-7.6	-5.9	-19.7	-16.2
Nine banks	3.6	3.8	-1.6	-1.6	-7.6	-7.7	-8.4	-9.2	-4.7	-5.7	-8.4	-10.7
Fifteen banks	2.1	7.1	0.1	0.4	-5.0	-16.2	-2.9	-11.3	-1.5	-6.5	-4.3	-20.1
Others	0.1	0.3	-2.4	-8.3	-0.7	-2.8	-2.1	-8.2	-1.4	-6.1	-7.1	-31.9
Capital importing developing countries 3/												
All banks	5.3	3.6	-3.1	-2.0	-12.0	-8.0	-12.7	-9.1	-6.7	-5.3	-19.6	-16.4
Nine banks	3.0	3.2	-1.0	-1.1	-6.8	-7.1	-7.7	-8.8	-4.0	-4.9	-8.0	-10.4
Fifteen banks	2.2	7.8	0.2	0.6	-4.6	-15.2	-3.0	-11.6	-1.3	-5.8	-4.4	-20.8
Others	0.1	0.4	-2.3	-8.0	-0.7	-2.5	-2.0	-7.8	-1.4	-5.9	-7.2	-32.6
Africa												
All banks	1.0	8.5	-0.8	-6.0	-2.8	-22.4	-2.0	-20.1	-0.3	-4.0	-1.4	-18.2
Nine banks	0.9	10.2	-0.8	-8.1	-1.6	-18.3	-1.4	-19.4	-0.1	-2.5	-1.2	-21.5
Fifteen banks	0.3	15.4	0.2	11.9	-0.9	-38.2	-0.3	-23.1	-0.1	-8.6	—	-3.8
Others	-0.1	-4.7	-0.2	-17.1	-0.3	-23.9	-0.2	-20.9	-0.1	-10.1	-0.1	-10.2
Asia												
All banks	1.4	4.5	-3.0	-9.5	-3.4	-11.9	-4.9	-19.3	-2.2	-10.7	-4.0	-22.0
Nine banks	0.3	1.3	-2.0	-9.3	-2.6	-13.5	-2.9	-17.7	-1.6	-11.6	-2.2	-18.9
Fifteen banks	0.5	8.2	—	0.6	-0.9	-14.9	-1.1	-21.4	-0.9	-21.3	-0.7	-20.7
Others	0.6	17.0	-1.1	-25.6	0.1	4.3	-0.8	-23.9	0.3	11.7	-1.0	-37.1
Indonesia												
All banks	0.6	19.9	-0.2	-5.0	-0.6	-18.8	-0.6	-21.6	-0.6	-29.4	-0.4	-27.1
Nine banks	0.5	21.0	-0.3	-8.8	-0.5	-16.7	-0.5	-22.4	-0.6	-30.9	-0.3	-28.2
Fifteen banks	—	7.5	0.1	30.1	-0.2	-36.9	—	-14.3	-0.1	-27.6	—	-11.6
Others	—	32.6	—	-14.8	—	3.0	—	-24.3	—	-9.3	—	-42.9
Korea												
All banks	0.5	4.1	-1.5	-13.3	-0.8	-7.9	-3.2	-34.6	-2.1	-35.8	0.5	13.6
Nine banks	-0.5	-6.8	-1.0	-15.5	-0.5	-9.7	-1.6	-31.1	-0.8	-24.2	0.2	8.8
Fifteen banks	0.5	20.5	—	0.4	-0.5	-17.0	-0.9	-41.3	-0.8	-59.4	0.3	47.2
Others	0.5	28.5	-0.5	-24.0	0.2	13.3	-0.7	-35.8	-0.5	-43.9	—	5.2
Philippines												
All banks	0.3	5.5	-0.6	-10.0	—	-0.7	-0.3	-5.8	-0.4	-8.5	-0.6	-11.9
Nine banks	0.1	1.3	-0.2	-4.4	—	0.9	-0.1	-2.3	-0.4	-11.6	-0.2	-6.2
Fifteen banks	—	2.7	-0.1	-4.6	-0.1	-6.8	-0.1	-13.2	-0.1	-9.8	-0.2	-22.3
Others	0.2	36.3	-0.4	-42.7	—	2.1	-0.1	-14.9	0.1	20.6	-0.2	-30.7
Europe												
All banks	0.4	4.1	-0.7	-6.5	-0.6	-5.8	-1.7	-17.6	-0.8	-9.6	-1.2	-15.7
Nine banks	0.6	7.7	-0.6	-7.1	-0.5	-7.0	-1.3	-17.9	-0.6	-10.1	-1.0	-17.4
Fifteen banks	—	0.3	—	1.3	-0.1	-7.3	-0.3	-17.4	-0.2	-11.1	—	1.9
Others	-0.1	-9.8	-0.2	-13.1	—	-3.5	-0.2	-16.0	—	-4.8	-0.3	-28.5
Middle East												
All banks	0.3	8.5	-0.4	-9.0	-0.7	-18.8	-0.6	-20.3	-0.7	-29.2	-0.2	-11.8
Nine banks	0.2	8.6	-0.2	-7.8	-0.5	-20.6	-0.5	-23.4	-0.5	-31.6	-0.2	-19.6
Fifteen banks	0.1	19.7	—	-0.9	-0.2	-24.7	-0.1	-17.7	-0.1	-29.0	—	-5.2
Others	—	1.5	-0.2	-18.8	-0.1	-7.3	-0.1	-12.9	-0.1	-22.7	—	2.3
Western Hemisphere												
All banks	2.1	2.3	1.8	1.9	-4.5	-4.7	-3.5	-3.9	-2.7	-3.0	-12.9	-15.1
Nine banks	1.1	2.1	2.5	4.7	-1.5	-2.7	-1.6	-3.0	-1.2	-2.2	-3.3	-6.4
Fifteen banks	1.3	7.3	-0.1	-0.6	-2.5	-13.0	-1.1	-6.8	-0.1	-0.4	-3.7	-23.9
Others	-0.3	-1.4	-0.6	-3.0	-0.5	-2.5	-0.8	-3.9	-1.4	-7.6	-5.9	-33.8
Argentina												
All banks	0.3	3.3	-0.5	-6.2	0.4	5.5	0.1	1.4	0.3	3.4	-0.3	-3.9
Nine banks	0.2	4.5	-0.3	-4.6	0.8	15.1	0.1	0.9	0.4	6.2	0.1	2.2
Fifteen banks	0.2	8.4	-0.1	-6.1	-0.2	-13.3	—	1.4	—	1.2	-0.3	-15.9
Others	-0.1	-8.4	-0.2	-13.6	-0.1	-8.6	—	4.2	-0.1	-10.3	-0.2	-24.8
Brazil												
All banks	0.2	1.1	3.2	15.6	-1.1	-4.5	-0.4	-1.7	-1.1	-5.0	-2.7	-12.8
Nine banks	—	—	2.5	18.8	-0.3	-1.6	-0.2	-1.2	-0.4	-2.3	-0.6	-4.0
Fifteen banks	0.4	10.3	0.4	10.0	-0.8	-16.6	-0.2	-4.7	-0.3	-7.7	-0.5	-13.1
Others	-0.2	-5.8	0.3	9.4	—	-1.2	—	-0.5	-0.5	-14.9	-1.7	-59.2
Mexico												
All banks	2.0	8.0	0.2	0.7	-1.6	-6.0	-1.3	-5.1	-0.9	-3.9	-4.9	-21.8
Nine banks	1.3	9.8	0.6	4.0	-0.6	-4.1	-0.7	-5.2	—	—	-1.6	-12.0
Fifteen banks	0.2	4.0	—	-0.2	-0.6	-12.0	-0.1	-1.1	-0.3	-6.8	-1.5	-34.4
Others	0.5	7.7	-0.4	-5.3	-0.3	-5.3	-0.5	-8.1	-0.6	-10.9	-1.9	-36.8
Venezuela												
All banks	-0.3	-2.8	-0.4	-4.0	-0.7	-6.7	-1.0	-9.7	-0.8	-8.7	-0.2	-2.2
Nine banks	-0.2	-2.2	-0.2	-2.6	-0.3	-4.1	-0.6	-8.7	-0.7	-10.5	-0.3	-5.2
Fifteen banks	—	1.3	-0.1	-5.3	-0.3	-15.9	-0.2	-9.2	—	1.2	-0.1	-4.1
Others	-0.2	-10.6	-0.1	-8.9	-0.1	-6.8	-0.2	-15.9	-0.1	-11.9	0.2	19.9

Source: Federal Financial Institutions Examination Council, Country Exposure Lending Survey.

1/ These data are based on consolidated reports of banks; owing to rounding, components may not add.

2/ First half of 1988 on an annualized basis.

3/ Excludes offshore banking centers.

Table 36. Assets and Capital of U.S. Banks, 1978-First Half 1988

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 First half
(In billions of U.S. dollars)											
External claims on developing countries <u>1/</u>	81.5	91.9	110.9	132.6	147.7	150.0	145.6	133.1	121.8	111.5	103.4
Total assets	823.6	941.3	1,066.3	1,164.5	1,261.0	1,336.0	1,413.0	1,529.0	1,613.0	1,633.0	1,649.0
Capital	45.5	49.7	56.9	62.7	70.6	79.3	92.2	105.4	116.1	129.2	132.3
(In percent)											
<u>Memorandum items</u>											
Capital to total assets	5.5	5.3	5.3	5.4	5.6	5.9	6.5	6.9	7.2	7.9	8.0
External claims on developing countries to total assets	9.9	9.8	10.4	11.4	11.7	11.2	10.3	8.7	7.6	6.8	6.3
Capital to external claims on developing countries	55.8	54.1	51.3	47.3	47.8	52.9	63.3	79.2	95.3	115.9	128.0

Sources: Federal Financial Institutions Examination Council, Country Exposure Lending Survey; and International Monetary Fund, International Financial Statistics.

1/ The data presented in this table are on an exposure basis; that is, they are adjusted for guarantees and other risk transfers.

Table 37. Change in Bank Claims on Developing Countries, 1983-First Half 1988 <sup>1/</sup>

(In billions of U.S. dollars and in percent)

	1983		1984		1985		1986		1987		First Half 1988 <sup>2/</sup>	
	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate	Billions of U.S. dollars	Growth rate
Developing countries <sup>3/</sup>												
U.S. claims data	5.8	3.8	-3.8	-2.4	-13.3	-8.5	-13.5	-9.4	-7.6	-5.9	-19.8	-16.2
U.K. claims data	2.1	3.2	-1.2	-1.8	-0.4	-0.6	0.6	0.9	0.1	0.2	-7.0	-11.1
Capital importing developing countries <sup>3/</sup>												
U.S. claims data	5.3	3.6	-3.1	-2.0	-12.0	-8.0	-12.7	-9.1	-6.7	-5.3	-19.6	-16.4
U.K. claims data	1.7	2.8	-0.5	-0.8	-0.5	-0.8	0.8	1.3	-0.2	-0.3	-7.2	-11.6
Africa												
U.S. claims data	1.0	8.5	-0.8	-6.0	-2.8	22.4	-2.0	-20.1	-0.3	-4.0	-1.4	-18.2
U.K. claims data	0.5	4.1	-0.2	-2.0	-0.8	-6.4	—	0.1	0.5	4.3	-0.7	-6.2
Asia												
U.S. claims data	1.4	4.5	-3.0	-9.5	-3.4	-11.9	-4.4	-19.3	-2.2	-10.7	-4.0	-22.0
U.K. claims data	0.4	3.6	-0.3	-3.0	0.2	2.3	-0.1	-1.1	-0.6	-6.1	-2.0	-20.8
Indonesia												
U.S. claims data	0.6	19.9	-0.2	-5.0	-0.6	-18.8	-0.6	-21.6	-0.6	-29.4	-0.4	-27.1
U.K. claims data	0.3	26.0	—	2.1	-0.1	-3.0	—	-1.0	—	-2.9	-0.3	-20.7
Korea												
U.S. claims data	0.5	4.1	-1.5	-13.3	-0.8	-7.9	-3.2	-34.6	-2.1	-35.8	0.5	13.6
U.K. claims data	-0.2	-7.4	-0.1	-2.5	-0.1	-2.0	-0.3	-9.8	-0.4	-16.5	-0.7	-35.0
Philippines												
U.S. claims data	0.3	5.5	-0.6	-10.0	—	-0.7	-0.3	-5.8	-0.4	-8.5	-0.6	-11.9
U.K. claims data	0.1	4.2	-0.2	-9.6	-0.1	-8.7	0.1	6.0	-0.1	-7.6	-0.1	-6.3
Europe												
U.S. claims data	0.4	4.1	-0.7	-6.5	-0.6	-5.8	-1.7	-17.6	-0.8	-9.6	-1.2	-15.7
U.K. claims data	-0.1	-0.3	-0.5	-6.0	0.2	2.4	—	0.2	-0.2	-2.2	-1.3	-16.3
Middle East												
U.S. claims data	0.3	8.5	-0.4	-9.0	-0.7	-18.8	-0.6	-20.3	-0.7	-29.2	-0.2	-11.8
U.K. claims data	-0.2	-11.2	-0.2	-13.3	—	2.0	-0.1	-6.2	0.1	3.7	0.1	3.3
Western Hemisphere												
U.S. claims data	2.1	2.3	1.8	1.9	-4.5	-4.7	-3.5	-3.9	-2.7	-3.0	-12.9	-15.1
U.K. claims data	1.1	3.9	0.8	2.8	-0.1	-0.5	1.0	3.2	—	0.2	-3.3	-10.4
Argentina												
U.S. claims data	0.3	3.3	-0.5	-6.3	0.4	5.5	0.1	1.4	0.3	3.4	-0.3	-3.9
U.K. claims data	0.1	2.8	-0.1	-1.3	0.3	8.3	0.4	11.8	0.1	2.3	0.1	1.4
Brazil												
U.S. claims data	0.2	1.1	3.2	15.6	-1.1	-4.5	-0.4	-1.7	-1.1	-5.0	-2.7	-12.8
U.K. claims data	0.7	8.5	0.7	8.5	-0.2	-2.2	0.4	4.1	0.2	1.7	-2.0	-20.7
Mexico												
U.S. claims data	2.0	8.0	0.2	0.7	-1.6	-6.0	-1.3	-5.1	-0.9	-3.9	-4.9	-21.8
U.K. claims data	0.3	3.8	0.1	1.1	-0.1	-0.9	—	0.1	0.1	1.1	-0.4	-4.7
Venezuela												
U.S. claims data	-0.3	-2.8	-0.4	-4.0	-0.7	-6.7	-1.0	-9.7	-0.8	-8.7	-0.2	-2.2
U.K. claims data	-0.2	-5.4	-0.1	-4.2	-0.1	-2.9	—	-1.8	—	-0.6	-0.2	-7.5

Sources: Federal Financial Institutions Examination Council, Country Exposure Lending Survey; and Bank of England, Quarterly Bulletin.<sup>1/</sup> These data are not adjusted for the impact of exchange rate movements and are based on consolidated reports of banks; owing to rounding, components may not add.<sup>2/</sup> First half of 1988 on an annualized basis.<sup>3/</sup> Excludes offshore banking centers.

Table 38. German Banks' Lending To Developing Countries, 1985-First Half 1988

(In millions of U.S. dollars)

	Domestic Banks				Branches				Subsidiaries			
	1985	1986	1987	1988	1985	1986	1987	1988	1985	1986	1987	1988
Developing Countries	2,726	2,285	3,150	445	-948	-1,364	-317	1,129	-1,821	-2,425	-994	671
Capital importing												
developing countries	2,805	1,938	2,961	478	-928	-1,444	-158	1,108	-1,834	-2,390	-916	673
Africa	-71	-58	-13	-104	-44	-102	9	32	-459	-330	-71	38
Asia	745	679	634	-140	-175	-301	88	244	-202	-418	-269	-45
Europe	713	494	1,711	325	74	-40	26	21	120	-208	120	223
Middle East	308	334	292	-56	1	-135	-22	28	-171	-157	-4	7
Western Hemisphere	1,110	489	337	453	-707	-866	-270	657	-1,093	-1,208	-699	345
Unallocated	—	—	—	—	-77	—	11	126	-29	-69	7	105
Oil exporters	-79	347	189	-33	-20	80	-159	21	13	-35	-78	-2
Identified	-79	347	189	-33	-16	84	-160	5	31	-23	-68	-6
Unallocated	—	—	—	—	-4	-4	1	16	-18	-12	-10	4

## Stocks (In millions of DM)

Developing countries	74,060	75,406	77,892	81,405	20,046	16,431	15,341	17,666	31,789	25,116	22,353	24,225
Capital importing												
developing countries	70,465	71,210	73,512	76,949	19,425	15,661	14,884	17,159	31,269	24,695	22,089	23,956
Africa	13,907	13,192	12,680	12,886	806	550	547	619	4,412	3,508	3,251	3,415
Asia	18,240	18,944	19,383	19,731	4,154	3,389	3,421	3,941	2,637	1,618	1,074	1,030
Europe	13,338	12,994	14,867	16,548	1,676	1,412	1,328	1,464	6,255	5,143	4,882	5,632
Middle East	7,436	7,846	8,080	8,229	745	420	364	422	822	445	421	445
Western Hemisphere	17,544	18,234	18,502	19,555	11,085	8,971	8,319	9,566	15,930	12,969	11,473	12,236
Unallocated	—	—	—	—	959	919	905	1,147	1,213	1,012	988	1,198
Oil exporters	3,595	4,196	4,380	4,456	621	770	457	507	520	421	264	269
Identified	3,595	4,196	4,380	4,456	575	734	420	441	386	320	186	182
Unidentified	—	—	—	—	46	36	37	66	134	101	78	87

Source: Deutsche Bundesbank; Statistische Beihefte Vol 3.

Table 39. Chronology of Bank Debt Restructurings and Bank Financial Packages, 1983-November 1988

<u>Agreement classified by month of signature 1/</u>	
1983	1986 (Continued)
Zaire: January (deferment)	Niger: April
Brazil: February 2/	Zaire: May (deferment)
Malawi: March	Brazil: July
Sudan: April (modification of 1981 agreement)	Uruguay: July
Bolivia: May, October (deferment)	Poland: September 2/
Romania: June	Romania: September
Chile: July 2/	Congo: October 2/ 3/
Guyana: July (deferment)	Cote d'Ivoire: December
Nigeria: July, September	
Peru: July 2/	1987
Uruguay: July 2/	South Africa: March
Mexico: August 2/	Mexico: March (public sector debt) 2/, August (private sector debt)
Panama: September 2/	Jamaica: May
Costa Rica: September 2/	Mozambique: May 3/
Yugoslavia: September 2/	Zaire: May (deferment)
Ecuador: October 2/	Chile: June
Togo: October	Honduras: June 3/
Poland: November 2/	Madagascar: June (modification of 1985 agreement)
Argentina: December (new financing only)	Argentina: August 2/
Dominican Republic: December	Morocco: September
1984	Romania: September (modification of 1986 agreement)
Brazil: January 2/	Bolivia: November (amendment to 1981 agreement)
Chile: January, June, and November	Ecuador: November (modification of 1985 agreement) 2/ 3/
Sierra Leone: January	Nigeria: November 2/
Guyana: January, July (deferment)	Venezuela: November
Nicaragua: February (deferment)	Gabon: December 5/
Peru: February 3/	Philippines: December
Senegal: February	
Niger: March	1988
Mexico: April (new financing only)	The Gambia: February
Sudan: April (modification of 1981 agreement)	Chile: March (amendment to 1987 agreement) 3/
Yugoslavia: May	Uruguay: March (modification of 1986 agreement)
Jamaica: June	Cote d'Ivoire: April 2/ 3/
Zaire: June (deferment)	Guinea: April
Poland: July 2/	Togo: May
Madagascar: October	Poland: July
Zambia: December 3/	Nigeria: September 3/
1985	Yugoslavia: September 2/
Cote d'Ivoire: March 2/	Malawi: October
Mexico: March, August	Brazil: November 2/
Costa Rica: May 2/	Trinidad and Tobago: November 3/
Senegal: May	
Philippines: May 2/	
Zaire: May (deferment)	
Guyana: July (deferment)	
Argentina: August 2/	
Jamaica: September	
Panama: October 2/	
Sudan: October (modification of 1981 agreement)	
Chile: November 2/	
Colombia: December 4/	
Ecuador: December 2/	
Madagascar: December (modification of 1984 agreement)	
Yugoslavia: December	
1986	
Dominican Republic: February	
Morocco: February	
Venezuela: February	
South Africa: March (standstill)	
<u>Under negotiation</u>	
Argentina	
Bolivia	
Costa Rica	
Guatemala	

Note: "Restructuring" covers rescheduling and also certain refinancings of member countries.

Sources: Restructuring agreements.

1/ Agreement either signed or reached in principle (if signature has not yet taken place); not all signed agreements have become effective.

2/ The restructuring agreement includes new financing.

3/ Agreed in principle or tentative agreement with banks' Steering Committees.

4/ New financing only, semispontaneous.

5/ A separate club deal for new financing was arranged at the same time.

Table 4Q. Terms of Selected Bank Debt Restructurings and Financial Packages, 1983-November 1988 1/

Country	Year of Agreement	Type of Transaction	Grace Period (In years)	Maturity (In years)	Interest Rate (In percent spread over LIBOR/U.S. Prime)	Fees (In percent)
Argentina	1983	New financing	3	4 1/2	2 1/4-2 1/8	1 1/4
	1984	Restructuring	3	10 to 12	1 3/8	—
		New financing	3	10	1 5/8-1 1/4	5/8
	1987	New financing	5	12	7/8	3/8 2/
		New financing 3/	—	4	7/8	3/8 2/
		Restructuring 4/ 5/	7	19	13/16	—
		Restructuring 4/ 5/	5	12	13/16	—
Brazil	1983	Restructuring	2 1/2	8	2 1/4-2	1 1/2
		New financing	2 1/2	8	2 1/8-1 7/8	1 1/2
	1984	Restructuring	5	9	2-1 3/4	1
		New financing	5	9	2-1 3/4	1
	1986	Restructuring	5	7	1 1/8	—
	1988	Restructuring 5/	7	19	13/16	—
		New financing 6/	5	12	13/16	3/8 2/
Chile		New Financing 3/	9	9	13/16	3/8 2/
	1983	New financing	4	7	2 1/4-2 1/8	1 1/4
		Restructuring	4	8	2 1/8-2	—
	1984	New financing	5	9	1 3/4-1 1/2	5/8
	1985	Restructuring	6	12	1 3/8	1/8
		New financing	5	10	1 5/8-1 1/4	1/2
	1987	Restructuring 4/ 5/	3	5	1 1/8	—
Cote d'Ivoire		Restructuring 5/	5	15 1/2	1	—
	1988	Restructuring 4/ 5/	5	15	13/16	—
		Restructuring 3/ 4/	3	5	7/8	—
	1984	Restructuring	2	7	1 7/8-1 5/8	1 1/4
		Restructuring	3	8	1 7/8-1 5/8	1 1/4
		New Financing	3	7	1 7/8-1 5/8	1 1/4
	1986	Restructuring 5/	3	9	1 5/8-1 3/8	—
Dominican Republic	1988	Restructuring 5/	5	14 1/2	1 1/4	1/2 2/
		New financing	4	8	1 1/2	3/4 2/
	1983	Restructuring	1	5	2 1/4-2 1/8	1 1/4
	1985	Restructuring 5/	3	13	1 3/8	—
Ecuador	1983	Restructuring	1	7	2 1/4-2 1/8	1 1/4
		New financing	1 1/2	6	2 3/8-2 1/4	1 1/4
	1985	Restructuring 5/	3	12	1 3/8	—
		New financing	2	10	1 5/8-1 1/4	—
	1987	Restructuring 7/	3	10	1	—
		Restructuring 8/	7	19	15/16	—
Mexico		New financing	2	8	1	1/2-1/8 2/
	1983	Restructuring	4	8	1 7/8-1 3/4	1
		New financing	3	6	2 1/4-2 1/8	1 1/4
	1984	New financing	5 1/2	10	1 1/2-1 1/8	5/8
		Restructuring 5/	0 to 1	14	7/8 in 1985-86	—
					1 1/8 in 1987-91	—
					1 1/4 in 1992-98	—
	1986	Restructuring 5/	7	20	13/16	—
		New financing	5	12	13/16	—
		New financing 9/	7	12	13/16	—
		New financing 10/	4	8	13/16	—



Table 140 (Concluded). Terms of Selected Bank Debt Restructurings and Financial Packages, 1983-November 1988 1/

Country	Year of Agreement	Type of Transaction	Grace Period (In years)	Maturity (In years)	Interest Rate (In percent spread over LIBOR/U.S. Prime)	Fees (In percent)
Nigeria	1983	Restructuring	1/2	3	1 1/2 - 1 3/8	...
		Restructuring	1/3	3	1 1/2 - 1 3/8	...
	1986	Restructuring <u>11/</u>	1	4	1 1/4	1/2
		Restructuring <u>12/</u>	3	9	1 1/4	1/2
		New financing	3	7	1 5/16	1/2
	1988	Restructuring <u>13/</u>	4	20	7/8	1/2 <u>14/</u>
		Restructuring <u>15/</u>	4	15	13/16	—
Philippines	1984	Restructuring	5	10	1 5/8	—
		New financing	5	9	1 3/4-1 3/8	1/2
	1987	Restructuring <u>5/</u>	7 1/2	17	7/8	—
		Restructuring <u>5/ 16/</u>	6	10	1 3/8	—
Uruguay	1983	Restructuring	2	6	2 1/4-2 1/8	1 3/8
		New financing	2	6	2 1/4-2 1/8	1/2
	1986	Restructuring <u>5/</u>	3	12	1 3/8	—
		Restructuring <u>4/5/</u>	3	12	1 5/8	—
	1987	Restructuring <u>4/ 5/</u>	3	17	7/8	—
Venezuela	1984	Restructuring <u>5/</u>	—	12 1/2	1 1/8	—
	1987	Restructuring <u>4/</u>	—	13	7/8	—
Yugoslavia	1983	Restructuring	3	6	1 7/8-1 3/4	1 1/8
	1983	New financing	3	6	1 7/8-1 3/4	1 1/8
	1984	Restructuring	4	7	1 5/8-1 1/2	7/8
	1985	Restructuring <u>5/</u>	4	10 1/2	1 1/8	—
	1988	Restructuring <u>5/</u>	5	18	13/16	—
		New financing	5	5	7/8	1/4 <u>2/</u>

Sources: Restructuring agreements.

1/ Classified by year of agreement in principle.

2/ Early participation fee.

3/ New trade credit and deposit facility.

4/ Amendment to previous reschedulings or new money packages.

5/ Multiyear debt restructuring agreement (MYRA).

6/ New money bonds, and parallel and cofinancing with the World Bank.

7/ Restructuring of maturities under the 1983 and 1985 new money agreements.

8/ Restructuring of maturities under the 1985 MYRA and other refinancing agreements.

9/ Growth contingency cofinancing with the World Bank.

10/ Contingent investment support facility.

11/ Arrears as of September 26, 1986.

12/ Maturities falling due in April 1986-December 1987.

13/ Medium-term debt.

14/ Only on previously unstructured debt.

15/ Letters of credit covered by previous agreement.

16/ Of private financial and private corporate sector debt, except for private corporate sector debt due in 1990-92 under the 1985 restructuring agreement. The latter maturities are restructured at public sector terms.

Table 41. Amounts of Medium- and Long-Term Bank Debt Restructured, 1983-November 1988 <sup>1/</sup>

(In millions of U.S. dollars; classified by year of agreement in principle)

	1983	1984	1985	1986	1987	Jan.- Nov. 1988
Argentina	—	14,200	—	—	29,500 <sup>2/</sup>	—
Bolivia	(309) <sup>3/</sup>	—	—	—	—	—
Brazil	4,452	4,846	—	6,671 <sup>4/</sup>	—	61,000 <sup>5/</sup>
Chile	2,169	1,160	6,007	—	5,902 <sup>5/</sup>	— <sup>6/</sup>
Congo	—	—	—	217	—	—
Costa Rica	709	—	440	—	—	—
Cote d'Ivoire	—	501	—	691 <sup>5/</sup>	—	2,211 <sup>5/</sup>
Dominican Republic	500	—	787 <sup>5/</sup>	—	—	—
Ecuador	1,835	4,260 <sup>5/</sup>	—	—	4,683 <sup>5/</sup>	—
Gabon	—	—	—	—	39	—
Gambia, The	—	—	—	—	19	—
Guinea	—	—	—	—	43	—
Guyana	(24) <sup>3/</sup>	(35) <sup>3/</sup>	(47) <sup>3/</sup>	(57) <sup>3/</sup>	—	—
Honduras	—	—	—	—	248 <sup>5/</sup>	—
Jamaica	—	165	195	—	365 <sup>5/</sup>	—
Madagascar	—	195	... <sup>6/</sup>	—	... <sup>6/</sup>	—
Malawi	57	—	—	—	—	35 <sup>2/</sup>
Mexico	18,800	48,700 <sup>5/</sup>	(950) <sup>3/</sup>	43,700 <sup>5/</sup>	—	—
Morocco	—	—	538	2,174	—	—
Mozambique	—	—	—	—	253 <sup>2/</sup>	—
Nicaragua	—	(145) <sup>3/</sup>	—	—	—	—
Niger	—	27	—	52	—	—
Nigeria	1,935	—	—	4,250	—	5,443 <sup>2/</sup>
Panama	—	—	579	—	—	—
Peru	380	460	—	—	—	—
Philippines	—	5,885	—	—	9,010 <sup>5/</sup>	—
Poland	1,154	1,390	—	1,970	8,441 <sup>5/</sup>	—
Romania	567	—	—	800	— <sup>7/</sup>	—
Senegal	—	78	20	—	—	—
Sierra Leone	—	25	—	—	—	—
South Africa	—	—	—	(9,800) <sup>3/</sup>	10,900 <sup>5/</sup>	—
Sudan	790	838	920	—	—	—
Togo	84	—	—	—	—	49 <sup>2/</sup>
Trinidad and Tobago	—	—	—	—	—	470 <sup>5/</sup>
Uruguay	216	(104) <sup>3/</sup>	1,958 <sup>2/</sup>	—	1,770 <sup>5/</sup>	—
Venezuela	—	21,088 <sup>5/</sup>	—	—	20,338 <sup>5/</sup>	—
Yugoslavia	950	1,250	4,012 <sup>5/</sup>	—	—	6,895 <sup>2/</sup>
Zaire	(58) <sup>3/</sup>	(64) <sup>3/</sup>	(61) <sup>3/</sup>	(65) <sup>3/</sup>	(61) <sup>3/</sup>	—
Zambia	—	74	—	—	—	—
Total <sup>8/</sup>	34,598	105,142	15,456	60,525	91,511	76,103

Sources: Restructuring agreements; and Fund staff estimates.

<sup>1/</sup> Including short-term debt converted into long-term debt.<sup>2/</sup> MYRA that, unlike previous exercises (indicated by footnote 5), entails the restructuring of all eligible debt outstanding as of a certain date.<sup>3/</sup> Deferment agreement.<sup>4/</sup> Excluding \$9.6 billion in deferments corresponding to maturities due in 1986.<sup>5/</sup> Multiyear rescheduling agreement (MYRA).<sup>6/</sup> Agreements in 1985 and 1987 modified debt service profiles on debt rescheduled under the 1984 agreements; the amounts involved, however, are not shown because repayments made during 1985-87 have not been identified.<sup>7/</sup> Agreement was reached with creditor banks in this year to amend certain terms of previous restructuring agreements. The amounts involved, however, were not modified in relation to those shown for the previous year.<sup>8/</sup> Totals exclude amounts deferred, which are given in parentheses.

Table 42. Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-November 1988 <sup>1/</sup>

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(US\$ millions)	(In years, unless otherwise noted)		(In percent spread over LIBOR-US prime)
<b>Argentina</b>					
Agreement in principle of April 24, 1987; final agreement August 1987:					
Rescheduling of public and private sector indebtedness <sup>2/</sup>	100 percent of principal	25,300	7	19	13/16
Rescheduling of 1983 and 1985 term credit agreements	100 percent of principal	4,200	5	12	13/16
New medium-term loan	New financing	1,550	5	12	7/8
New trade credit and deposit facility	New financing	400	--	4	7/8
Amendment to trade credit and deposit facility of 1985	Maturity lengthened to coincide with 1987 trade credit deposit facility	500	--	4	13/16
Trade credit maintenance facility	Banks will continue to maintain trade credit at levels of September 30, 1984 (estimate)	1,200	--	2	13/16
Stand-by money market facility	Banks will continue to make available to the Central Bank on request any amounts out- standing to foreign branches and agencies of Argentine banks on September 30, 1984	1,400	--	2	3/4
<b>Brazil</b>					
Agreement of July 25, 1986					
Rescheduling of medium- and long-term due in 1985	100 percent of principal	6,671	5	7	1 1/8
Deferment of medium- and long-term due in 1986	100 percent of principal	9,600	...	to March 1987	Original rates
Maintenance of trade and interbank lines	100 percent rollover	14,750	...	to March 1987	Original rates
Agreement with Advisory Com- mittee of June 22, 1988; <sup>3/</sup> final agreement November 11, 1988					
Rescheduling of public and private debt <sup>4/</sup> falling due in 1987-93	100 percent of principal	61,000	7	19	13/16
New medium-term financing <sup>5/</sup>	New financing	4,600	5	12	13/16
New medium-term trade credit and deposit facility	New financing	600	9	9	13/16
Short-term trade credit facility <sup>6/</sup>	Banks will maintain trade credit at their 1986 commitment level	10,182	--	2 1/2	1/8 - 3/4
Interbank facility <sup>6/</sup>	Banks will maintain interbank credit at their 1986 commitment level	4,651	--	2 1/2	5/8
<b>Chile</b>					
Agreement of June 17, 1987 <sup>7/</sup>					
Amendment to 1983-87 restructuring agreements	100 percent of principal falling due in 1988-90	2,951	5	15 1/2	1
Amendments to 1983-84 new money agreements	100 percent of principal falling due in 1988-90	1,416	3	5	1 1/8
1988-91 unrescheduled original maturities	100 percent of principal	1,535	5	15 1/2	1
Extension of short-term trade related facility until end-1989	100 percent rollover	1,700	--	2	1 3/8 - 1 1/8
Agreement in principle of March 22, 1988; final agree- ment August 1988					
Amendments to the restruc- turing agreements of June 17, 1987					
1983-84 and 1985-91 restructuring agreements <sup>9/</sup>	Unchanged	Unchanged	Unchanged	Unchanged	13/16 <sup>8/</sup>
1983-85 new money agreements and 1983 cofinancing agreement <sup>9/ 10/</sup>	Unchanged	Unchanged	Unchanged	Unchanged	7/8 <sup>8/</sup>

Table 42 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-November 1988 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(US\$ millions)	(In years, unless otherwise noted)		(In percent spread over LIBOR-US prime)
<b>Congo</b>					
Agreement in principle of October 15, 1986; final agree- ment February 1988					
Rescheduling of public sector debt falling due in 1986-88	100 percent of principal	217	3	9	1 7/8 - 1 1/2
New medium-term loan	New financing	60	2 1/2	8	1 7/8 - 1 1/2
<b>Cote d'Ivoire</b>					
Agreement with Steering Committee of May 21, 1986; final agreement December 1986					
Public and publicly guaranteed medium- and long-term debt:					
Due in 1986	80 percent of principal	200	3	9	1 5/8 - 1 3/8
Due in 1987	70 percent of principal	196	3	9	1 5/8 - 1 3/8
Due in 1988	60 percent of principal	170	3	9	1 5/8 - 1 3/8
Due in 1989	50 percent of principal	125	3	9	1 5/8 - 1 3/8
Agreement in principle of April 29, 1988					
Rescheduling of public and private eligible debt 11/ In arrears as of end-1987	100 percent of principal	111	5	14 1/2	1 1/4
Falling due in 1988-95	100 percent of principal	2,100	5	14 1/2	1 1/4
New medium-term loan	New financing	151	4	8	1 1/2
<b>Dominican Republic</b>					
Agreement of February 24, 1986					
Rescheduling of public and private debt					
In arrears as of December 31, 1984	100 percent of principal	80	3	13	1 3/8
Due in 1985-89	100 percent of principal	707	3	13	1 3/8
<b>Ecuador</b>					
Agreement with Steering Committee of November 25, 1987					
Rescheduling of 1983 and 1985 new money agreements	100 percent of principal	631	3	10	1
Rescheduling of maturities under 1985 MYRA and other rescheduling agreements	100 percent of principal	4,052	7	19	15/16
New medium-term loan	New financing	350	2	8	1
<b>Gabon</b>					
Agreement in principle of June 4, 1987; final agreement December 1987					
Rescheduling of principal due September 21, 1986- December 31, 1988	100 percent of principal	39	4	9	1 3/8
<b>Gambia, The</b>					
Agreement in principle of May 27, 1987; final agreement February 15, 1988					
Rescheduling of public debt outstanding as of December 18, 1986	100 percent of principal	19	3 1/2	8	1 1/4
<b>Guinea</b>					
Agreement in principle of November 1987; final agreement April 20, 1988					
Restructuring of short- and medium-term debt outstanding	70 percent of principal	43	1/2	3	1 3/4

Table 42 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-November 1988 <sup>1/</sup>

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided  (US\$ millions)	Grace Period  (In years, unless otherwise noted)	Maturity	Interest Rate  (In percent spread over LIBOR-US prime)
<b>Honduras</b>					
Agreement in principle of June 26, 1987:					
Restructuring of principal and interest in arrears	100 percent of arrears as of end-March 1987	219	6	8	1 1/8 <sup>12/</sup>
Restructuring of maturities falling due in 1987-89	100 percent of principal	29	6	8	1 1/8 <sup>12/</sup>
<b>Jamaica</b>					
Agreement of May 7, 1987					
Rescheduling of maturities falling due April 1985 to end-1986	100 percent of principal	185	1 1/2	8 1/2	1 1/4
Rescheduling of maturities falling due January 1987 to March 31, 1990	100 percent of principal	180	9	12 1/2	1 1/4
<b>Madagascar</b>					
Agreement of June 15, 1987					
Modifications to 1984 and 1985 agreements altering debt service profile on rescheduled debt	100 percent of principal	... <sup>13/</sup>	--	9	1 5/8 - 1 7/8
<b>Malawi</b>					
Agreement in principle of April 26, 1988; final agree- ment October 4, 1988					
Rescheduling of public or publicly guaranteed debt outstanding as of August 21, 1987	100 percent of principal	35	4	8	1 1/4
<b>Mexico</b>					
Agreement with Steering Committee of September 30, 1986; final agreement April 1987					
Restructuring of previously restructured debt	100 percent of principal	43,700	7	20	13/16
Change in spread for 1983 and 1984 new money facilities <sup>14/</sup>	--	8,600	5	10	13/16
1986-87 new money facility	New money	5,000	5	12	13/16
Cofinancing arrangement with World Bank <sup>15/</sup>	New money	1,000	9	15	13/16
Growth contingency cofinancing with World Bank <sup>15/</sup>	New money	500	7	12	13/16
Contingent investment support facility	New money	1,200	4	8	13/16
Agreement of August 14, 1987					
Private sector debt under Forward Coverage Scheme (FICORCA)	100 percent of principal	... <sup>16/</sup>	7	20	13/16

Table 42 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-November 1988 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided  (US\$ millions)	Grace Period  (In years, unless otherwise noted)	Maturity	Interest Rate  (In percent spread over LIBOR-US prime)
<b>Morocco</b>					
Agreement of February 1986					
Medium- and long-term debt due from September 9, 1983 to December 31, 1983	100 percent of principal)	3	7	1 3/4	
Medium- and long-term debt due in 1984	90 percent of principal )	538	3	7	1 3/4
Rollover of short-term debt	Trade related credit outstanding as of August 24, 1987	610	--	--	--
Agreement in principle of December 15, 1986 (signed on September 23, 1987, made effective on January 4, 1988):					
Rescheduling of medium- and long-term debt not pre- viously rescheduled falling due from 1985-88	100 percent of principal	1,546	4	11	1 3/16
Rescheduling of principal payments due in 1987-88 under previous rescheduling agreement	100 percent of principal	178	4	4	1 3/4
Conversion of short-term trade credits (except letters of credit) into medium-term debt	Trade-related credit outstanding as of August 24, 1983	450	--	6	1 3/16
Consolidation of trade arrears due to banks into a trade credit maintenance facility	Arrears as of September 30, 1986	154 17/	--	5 1/2	Original rates
<b>Mozambique</b>					
Agreement in principle of May 27, 1987					
Refinancing of trade-related and other short-term public sector debt	100 percent of principal outstanding on May 27, 1987	86	5	8	1 1/8
Restructuring of medium- term public sector debt	100 percent of principal outstanding on May 27, 1987	54	8	15	1 1/8 18/
Restructuring of all non- principal overdue amounts of the two above agreements	100 percent of arrears as of June 30, 1987	113	8	12	1 1/8 18/
<b>Niger</b>					
Agreement of April 1986:					2 percent
Serial rescheduling of medium- term debt:					
Due October 1, 1985- December 31, 1986	90 percent of principal, excluding) previously rescheduled debt )	23	4 1/2	8 1/2	)Originally )contracted
Due 1987	)	17	4	8 1/2	)rate plus
Due 1988	)	12	4	8 1/2	)2 percent
<b>Nigeria</b>					
Agreement in principle of November 1986; signed on November 23, 1987:					
Rescheduling of medium- and long-term debt falling due from April 1, 1986 to December 31, 1987	100 percent of principal	1,725	3	9	1 1/4
Arrears as of September 26, 1986	Letters of credit confirmed before September 26, 1986 and associated new interest	2,525	1	4	1 1/4
New medium-term loan 19/	New financing	320	3	7	1 5/16
Agreement in principle of September 1988; restructuring of debt outstanding at end-1987					
Not previously rescheduled medium-term debt		1,219	4	20	7/8
Debt covered by the November 1987 rescheduling agreement		1,724	4	20	7/8
Debt (letters of credit) covered by the November 1987 refinancing agreement		2,500	4	15	13/16

Table 42 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-November 1988 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided  (US\$ millions)	Grace Period  (In years, unless otherwise noted)	Maturity	Interest Rate  (In percent spread over LIBOR-US prime)
<b>Philippines</b>					
Agreement in principle of March 27, 1987; final agreement of December 1987:					
Rescheduling of public and publicly guaranteed debt:					
Due January 1, 1987- December 31, 1992	100 percent of principal	2,762	7 1/2	17	7/8
Due January 1, 1989- December 31, 1994 under 1985 restructuring agreement	100 percent of principal	3,963	7 1/2	17	7/8
Rescheduling of private financial sector debt:					
Due January 1, 1987- December 31, 1992	100 percent of principal	13	6	10	1 3/8
Due January 1, 1989- December 31, 1992 under 1985 restructuring agreement	100 percent of principal	1,172	6	10	1 3/8
Rescheduling of private corporate debt:					
Due January 1, 1987- December 31, 1992	100 percent of principal	653	6	10	1 3/8
Due January 1, 1990- December 31, 1992 under 1985 restructuring agreement	100 percent of principal	447	7 1/2	17	7/8
Extension of short-term trade-related facility until June 30, 1991	100 percent rollover	2,965	4 1/2	5	3/4
Change in spread for 1985 new medium-term loan	--	Unchanged	Unchanged	Unchanged	7/8
<b>Poland</b>					
Agreement of September 1986: Restructuring of medium- and long-term debt included in April and November 1982 agreements					
Due in 1986	95 percent of principal	915	4	4	1 3/8
Due in 1987	80 percent of principal	1,055	4	4	1 3/8
Agreement in principle of August 1987; final agree- ment July 1988					
Rescheduling of maturities falling due in 1987-90, including previously restructured debt	100 percent of principal	5,219	1	15	13/16
Rescheduling of maturities falling due in 1991-93, including previously restructured debt	100 percent of principal	3,082	6	15	13/16
Modification of the 1986 restructuring agreement covering payments falling due in 1987	50 percent of principal	140	--	2	13/16
Short-term revolving trade credit facility	Banks will maintain 100 percent of trade-related facilities under the 1983 and 1984 agreements	1,000	--	2	13/16
<b>Romania</b>					
Agreement of September 1986: Maturities on loans already rescheduled in 1982-83 falling due in					
1986	100 percent of principal	350	3	4 1/2	1 3/8
1987	85 percent of principal	450	4	5 1/2	1 3/8
Agreement in principle of September 1987					
Change in spread of 1986 restructuring agreement	Unchanged	Unchanged	Unchanged	Unchanged	7/8

Table 42 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-First Half 1988 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided  (US\$ millions)	Grace Period  (In years, unless otherwise noted)	Maturity	Interest Rate  (In percent spread over LIBOR-US prime)
<b>South Africa</b>					
First interim debt arrangement of March 25, 1986					
Short- and medium-term debt subject to September 1985 standstill originally due August 28, 1985 to June 30, 1987	About 95 percent of principal	9,800	1 1/4	1 1/4	)Margin applicable )in August 1985 )plus a maximum )additional spread )of up to 1 per- )centage point ) ) )
Second interim debt arrangement of March 24, 1987					
Short- and medium-term debt subject to September 1985 standstill due June 30, 1987 to June 30, 1990	About 87 percent of principal	10,900	3	3	) ) ) )
<b>Togo</b>					
Agreement of May 1988 Arrears and principal out- standing at end-1987	100 percent of principal	49	4	8	1 3/8
<b>Trinidad and Tobago</b>					
Agreement in principle of November 1988					
Medium- and long-term maturities falling due: September 1, 1988- August 31, 1992	100 percent of principal	[470]	4 1/2	12 1/2	15/16
<b>Uruguay</b>					
Agreement in principle of December 1985; final agreement July 1986					
Maturities falling due in 1985-1989 and not pre- viously restructured	100 percent of principal	844	3	12	1 3/8
Previously restructured maturities falling due in 1985-1989	100 percent of principal	621	3	12	1 5/8
Medium-term loan granted in 1983	100 percent of principal	230	3	12	1 5/8
Bearer Treasury bonds	100 percent of principal	263	3	12	1 3/8
Agreement in principle of November 1987; final agree- ment March 1988					
Restructuring of debt covered by the July 1986 agreement	100 percent of principal	1,695 20/	3	17	7/8
Restructuring of maturi- ties falling due in 1990-91 according to the pre-MYRA 1986 schedule	100 percent of principal	75 21/	3	17	7/8
<b>Venezuela</b>					
Agreement with Steering Committee of February 27, 1987 (final agreement of November 1987): Modification of February 1986 rescheduling agreement	100 percent of principal	20,338	--	13	7/8
<b>Yugoslavia</b>					
Tentative agreement with bank coordinating com- mittee of April 20, 1988; final agreement September 21, 1988					
Rescheduling of the stock of medium- and long-term debt	100 percent of principal	6,895	5	18	13/16
New trade deposit facility	New financing	300	5	5	7/8



Table 42 (concluded). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1986-First Half 1988 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Amount Basis Provided	Grace PeriodMaturity Interest Rate		(In years, unless otherwise noted)	(In percent spread over LIBOR-US prime)
		(US\$ millions)			
<b>Zaire 22/</b>					
Deferment agreement of May 1986 23/	Principal	65	...	...	Originally con- tracted rate
Deferment agreement of May 1987 24/	Principal	61	...	...	Originally con- tracted rate
<b>Memorandum item:</b>					
<b>Non-Fund member</b>					
<b>North Korea:</b>					
Agreement in principle of September 1987					
Rescheduling of arrears	...	770	4	12	1 3/4 25/

Sources: Restructuring agreements; and Fund staff estimates.

1/ Arrangements approved (in principle or definitely) before January 1, 1986 were reported in International Capital Markets: Developments and Prospects, 1986, December 1986.

2/ For public debt, pre-December 9, 1982 debt originally falling due prior to January 1, 1986 that has been previously restructured and debt originally falling due after December 31, 1985 that has not been previously restructured. Excluded is indebtedness under the 1983 and 1985 term credit agreements and the 1985 trade credit and deposit facility which is rescheduled on different terms. For private sector borrowers, the restructuring of principal maturities of pre-December 9, 1982 indebtedness maturing subsequent to December 31, 1985, including previously restructured maturities.

3/ The agreement provides also for repricing and retiming of public sector debt. The savings to Brazil from repricing, which will consist of a reduction in the spread over LIBOR from their current range (1.125-2.414) to 13/16, are estimated at US\$100 million in 1988 and US\$380 million in 1989. Retiming of interest periods from a quarterly to a six monthly basis is estimated to provide relief of US\$600 million in 1988.

4/ Excluding: (i) about US\$1 billion corresponding to repayments on voluntary lending after January 1, 1983 falling due in 1988-93; and (ii) amounts under switching operations (see footnote 6).

5/ Includes at least US\$2,850 million in parallel financing with the World Bank; two cofinancing facilities with the World Bank for up to US\$500 million and US\$210 million, respectively; and new money bonds for up to US\$1 billion.

6/ Banks will be permitted to switch up to US\$1.8 billion of interbank commitments to trade commitments during 1988-90.

7/ Interest periods under all agreements were temporarily converted from the existing periods to periods of 12 months providing relief in 1988 of an estimated \$415 million.

8/ Spreads and guarantee fees would revert to their previous levels should Chile ask for new money "on a concerted basis" before end-1989.

9/ Amendments also allow for: debt/debt exchanges and debt buy-backs; repayments in Chilean currency; and the pledge of collaterals to facilitate debt exchanges, hedging operations, and the raising of voluntary new money. New money may be collateralized in amounts of up to US\$100 million in 1988, US\$200 million in 1989, and US\$200 million per year, thereafter, with an aggregate limit of US\$500 million outstanding at any one point after 1989. No more than US\$200 million of new money can be collateralized with exportable assets. The limit on collateral for risk-management techniques is US\$150 million. Up to US\$500 million may be used in cash buy-backs or in exchange of new collateralized debt for old; no more than US\$2 billion of existing debt may be extinguished in this manner.

10/ Amendments to the 1985 new money agreement also allow for an increase, as of January 1, 1989, of US\$35 million in relending. In order to facilitate the reduction in spreads, the fee paid by banks on the World Bank guarantee, under the 1985 cofinancing agreement, was reduced by 1/4 percentage point.

11/ Eligible debt includes debt contracted before November 1, 1988 and previously rescheduled obligations.

12/ If on December 31, 1987 Honduras is current in its payment obligations, the margin over LIBOR will be reduced to 1 percentage point.

13/ Amount of debt on which terms were modified is not known because repayments made during 1985-87 have not been identified.

14/ Including the restructuring of the \$950 million prepayment which had been deferred since October 1, 1985.

15/ These loans have an associated guarantee given by the World Bank in the later maturities equivalent to 50 percent of the nominal amount disbursed.

16/ Amount still to be determined. Amortization of rescheduled amounts subject to relending at the choice of creditors, but within certain limits of the domestic credit program established by the Mexican authorities.

17/ In the event, only US\$80 million was consolidated.

18/ Spread will increase to 1 1/4 percentage points at the end of the grace period.

19/ Initial maturity of one year and a spread of 1 1/4 percent; will be automatically converted to a medium-term loan if certain conditions are fulfilled.

20/ US\$263 million in bearer Treasury bonds, which were restructured under the 1986 agreement, were not included in this agreement.

21/ Net of US\$24 million of prepayment required under the agreement.

22/ Bank debt refinancing agreement covers only syndicated loans (and other floating rate loans) without creditor country guarantee.

23/ Under this agreement Zaire would make monthly payments amounting to \$3.5 million for the period May 1986-April 1987.

24/ There will be monthly payments of \$3 million for the May 1987-May 1988 period, except for July 1987 when the due payment is \$3.5 million.

25/ The spread over LIBOR is expected to remain 1 3/4 percentage points for the first three years, and then decline to 1 1/2 percentage points for the next five years, and to 1 1/4 percentage points for the final four years, subject to the borrowers' compliance with the terms and conditions of the agreement.

Table 43. Debt Conversions, 1984-Third Quarter 1988 1/

(In millions of U.S. dollars)

	1984	1985	1986	1987	First Three Quarters 1988 <u>2/</u>
Argentina	31 <u>3/</u>	469 <u>3/</u>	--	--	378
Brazil	731	537	176	290	1,297 <u>4/</u>
Chile	--	324	987	1,983	1,845
Costa Rica	--	--	7	96	15
Ecuador	--	--	--	127	258
Honduras	--	--	--	6	4 <u>5/</u>
Jamaica	--	--	--	--	--
Mexico	--	--	413	1,741	655 <u>4/</u> <u>6/</u>
Philippines	--	--	15	266	263
Uruguay	--	--	--	--	97
Venezuela	--	--	--	<u>45</u>	<u>49</u>
Total	762	1,330	1,598	4,554	4,861

Sources: Central Bank of Argentina; Central Bank of Brazil; Central Bank of Chile; Mexico, Ministry of Finance; Central Bank of Philippines; Bank of Jamaica; and Fund staff estimates.

1/ Face value of debt converted under officially recognized operational schemes.

2/ Figures do not include the exchange of US\$64.4 million of Bolivian debt to banks for US\$7.1 million in 25-year collateralized bonds as part of a buy-back scheme.

3/ The annual breakdown of conversions is estimated.

4/ January-August 1988.

5/ January-June 1988.

6/ Does not include the exchange of US\$3,671 million of medium-term bank debt for US\$2,556 million in 20-year collateralized new Mexican bonds.

Table 44. Suggested Structural Changes or Policy Measures in  
Selected Reports on Equity Market Developments in October 1987

Report of (Sponsoring Institution or Group)	Subject of Recommendation
<u>I. Structure of Equity Markets</u>	
<u>1. Linkages</u>	
Bank of England <u>1/</u>	Further examination of potential interaction between stock and derivative markets required.
Duguen Report (France) <u>2/</u>	Encourage the development of organized markets in new products such as stock index options and a security representing the stock exchange index.
U.S. Presidential Task Force <u>3/</u>	The stock, options, and futures markets for equity constitute one basic market.
U.S. G.A.O. <u>4/</u>	The stock, options, and futures markets for equity are basically one market.
U.S. Interagency Working Group <u>5/</u>	The stock, options, and futures markets for equity constitute one market.
<u>2. Organization</u>	
Securities Review Committee (Hong Kong) <u>6/</u>	There must be a fundamental revision of constitutions of both the stock and futures exchanges to establish proper representation for individuals and corporations. In the future market, there must be a restructuring of clearing and guarantee system to strengthen risk management arrangements, with the clearing house becoming part of the exchange and the guarantee should be backed by a Clearing Member's Fund.
<u>II. Trading Systems</u>	
<u>1. Order execution</u>	
CME <u>7/</u> (Chicago)	Must improve opening procedures in both the stock and futures markets.
ISE (U.K.) <u>8/</u>	There is a need to provide more speedy execution service.

NCSC (Australia) 9/

A review of existing and proposed mechanisms on the equity market for the capture, editing, and analysis of trading data is a high priority.

NYSE (New York) 10/

The capacity of the NYSE automated order transmission system should be expanded.

U.S. Presidential Task Force 3/

Information systems should be established to monitor transactions and conditions in related markets. When there are serious imbalances of orders, consideration should be given to favoring public customers in execution over institutional and their proprietary orders through the DOT system.

U.S. G.A.O. 4/

The capacity of automated trading and information systems should be strengthened in all markets.

U.S. S.E.C. 11/

All exchanges should implement quickly improvements to enhance their ability to handle volume surges in the future.

U.S. Interagency Working Group 5/

Markets should enhance the capacity of their trade-processing systems and improve the fairness and quality of order execution.

## 2. Market makers

Bank of England 1/

Further examination of capital adequacy for market participants required.

Chicago BOT 12/

The future industry should reassess its current capital requirement with a view toward a more equal measure of assessing risk of positions held in the market place.

Minimum capital requirements for futures commission merchants should be based on the risk associated with open customer positions.

Should examine specialist system in the stock exchange with a view to increasing its competition.

CFTC (U.S.) 13/

All firms carrying customer funds weakened the exceptional market volatility without failure or default.

NCSC (Australia) 9/

While existing financial requirements performed well during the market crash, there should be a review of whether existing measures are suitable in more volatile markets.

U.S. Presidential Task Force 3/

NYSE minimum capital requirement for specialists should be reviewed.

U.S. S.E.C. 11/

There is concern that the present minimum capital requirements of the NYSE and other major U.S. exchanges do not reflect the actual capital needed to ensure the maintenance of fair and orderly markets.

Securities Review Committee  
(Hong Kong) 6/

There should be a review of the risk-based capital requirements of market participants.

### 3. Trading statistics

CME (Chicago) 7/

Index arbitrage does appear to have played major role in the crash. Portfolio insurance did contribute significantly to selling in the futures market, but does not by itself explain the widespread decline in equity prices.

ISE (U.K.) 8/

There must be development of techniques (e.g., index arbitrage) which help eliminate pricing anomalies between the cash and derivative markets.

NYSE (New York) 10/

The NYSE should consider trading one or two broad stock indices on the floor of the exchange.

Denying DOT use for program trades that relate to futures by way of hedges or arbitrage does not seem, except in an emergency, desirable or feasible.

U.S. S.E.C. 11/

There should be an examination of whether there should be a NYSE specialist post where market baskets could be traded.

### III. Clearance and Settlement Systems

CFTC (U.S.) 13/

The legal relationships between clearing organizations and settlement banks should be clarified so that settlement bank confirmation, once communicated to the clearing organization, are final. A mechanism for expanding the capacity of the system to transfer funds in market emergencies may warrant further examination.

Duguen Report (France) 2/

Improve the exchange of information between clearing houses.

A single body should handle the clearing of both futures contracts and options on the stock index.

The capital of clearing houses should be increased.

U.S. Presidential Task Force 3/

Clearing systems should be unified to reduce financial risks.

U.S. S.E.C. 11/

Clearing agencies should increase capacity, consider enhancements to their risk management systems to reflect increased price volatility, and trading volume.

Securities Review Committee  
(Hong Kong) 6/

The Stock Exchange Settlement period should be extended to three days which should be strictly enforced and the early development of a central clearing system must be undertaken.

U.S. Interagency Working Group 5/

There needs to be improvements in the credit, clearing, and settlement systems beyond the notable changes already made.

#### IV. Measures to Limit Financial Risk

##### 1. Margins

Chicago BOT 12/

Higher margins on stock index futures would increase the cost of hedging and shift activity to foreign markets. The exchanges, and not a federal agency, are in the best position to adjust margins quickly and efficiently in response to changing market volatilities.

CFTC (U.S.) 12/

The futures margining system assured the financial integrity of futures contracts against counterparty risk.

CME (Chicago) 7/

No need to change futures margins.

NYSE (New York) 10/

There must be a change in either the cash settlement or the margins for futures. One possibility would be to raise futures margins. If index baskets were to be traded on NYSE, this could facilitate delivery settlement of futures.

U.S. Presidential Task Force 3/

Margins should be made consistent to market segments in order to control speculation and financial leverage.

U.S. S.E.C. 1/

There should be a review with the CFTC of the impact on the stock market of the current margins on stock index futures and options. There should also be an examination of the possibility of physical rather than cash settlement for stock index futures and contracts.

Securities Review Committee  
(Hong Kong) 6/

Futures margins should be designed so that there is high confidence that the margin account will be sufficient to cover losses arising from a high percentage of likely daily price movements.

If volumes and risks build up in the future, twice daily margining could enhance the stability of the system.

Margins in the stock exchange should also be reviewed.

U.S. Interagency Working Group 5/

Current minimum margins for stocks, stock index futures, and options provide an adequate level of protection for the financial system. The Working Group could not agree on whether it was appropriate or effective to raise margins above prudential levels in an attempt to reduce leverage or dampen volatility.

## 2. Circuit Breakers

Bank of England 1/

Further examination of desirability of rules to limit the speed at which prices move required.

Chicago BOT 12/

Moved to establish daily price limits on Major Market Index futures contracts. Any price limits should be applied consistently on stocks, options on individual stocks, index options, and index futures.

Any trading halts should be instituted in a uniform manner under pre-set conditions, well known in advance by market participants.

CME (Chicago) 7/

While CME instituted daily price limit on S&P 500 contract for days on October 23, 1987, there must be a careful examination of whether they should be permanent.

Duguen Report (France) 2/

There should be arrangements for provisional trading halts when a general level of price volatility is exceeded.

ISE (U.K.) 8/

It is not likely that the ISE would wish to implement circuit breakers.

NCSC (Australia) 9/

The NSCS is not inclined to favor price limits in cash or derivative markets.

NYSE (New York) 10/

Price limits and position limits may represent well-intentioned efforts to reduce volatility but neither solves comfortably the problem of the linkages of the exchanges.

U.S. Presidential Task Force 3/

Price limits and coordinated trading halts should be formulated and implemented to protect the market system.

U.S. S.E.C. 11/

As a general matter, price limits should not be imposed on stock trading; although brief trading halts based on pre-set standards may warrant further consideration.

Securities Review Committee  
(Hong Kong) 6/

The stock and futures exchanges should discuss with the regulatory authorities procedures for making a coordinated response to disorderly trading.

U.S. Interagency Working Group 5/

There should be trading halts for stocks, stock options, and stock index options and futures for one hour if the Dow Jones Industrial Average (DJIA) falls by 250 points from the previous day's close. A second closing for two hours should occur if the DJIA declines by 400 points.

### 3. Position limits

CME (Chicago) 7/

Consideration must be given to how tight speculative position limits in the future markets should be.

Securities Review Committee  
(Hong Kong) 6/

There should be net worth-based position limits which would limit gross open positions on either the buy or the sell side of the future market.



#### 4. Emergency Assistance

NCSC (Australia) 9/

A coordinated plan of action for future market emergencies should be discussed by all major regulatory as well as self-regulatory bodies.

U.S. G.A.O. 4/

Self- and federal regulatory agencies should develop integrated intermarket contingency plans to deal with market breaks.

U.S. S.E.C. 11/

The actions by the Federal Reserve to encourage major banks to continue their prudent financing of securities firms were critical in avoiding any potential for a liquidity gridlock.

#### V. Regulation and Supervision

##### 1. Domestic Issues

Chicago BOT 12/

The differences between futures (where risks are hedged) and stock (where ownership is transferred) justify different regulatory structures.

Any unnecessary regulatory changes, which raise the costs of using the successful exchange risk shifting markets, will drive cost-conscious hedgers to unregulated off-exchange alternatives and to highly competitive foreign markets.

CFTC (U.S.) 13/

The feasibility of developing a computerized financial data base that would allow for more timely monitoring of trading flows and financial positions should be explored.

Duguen Report (France) 2/

Improve the supervision of discount brokers and portfolio managers.

A liaison committee should be established between market authorities so as to ensure a permanent consultative mechanism, especially at times of crisis. 14/

Federation of German Stock  
Exchanges 15/

It would be erroneous to believe that more regulation by government supervisory authorities could ensure greater security on a durable basis or even prevent risks from arising.

NCSC (Australia) 9/

While the NCSC supervises both equity and futures markets, it is reviewing its internal structures and practice to ensure that the linkages between the two markets are adequately recognized.

NYSE (New York) 10/

There must be consolidated regulatory authority.

U.S. Presidential Task Force 3/

The institutional and regulatory structures designed for separate market prices were incapable of effectively responding to intermarket pressures. One agency should coordinate the regulatory issues which have an impact across the related market segments. The Federal Reserve would be well qualified to serve as the intermarket agency.

U.S. G.A.O. 4/

There is a need for better intermarket regulation in which the Federal Reserve should be involved. Federal oversight in trading systems development and enhancement needs to be strengthened.

Securities Review Committee  
(Hong Kong) 6/

A single independent statutory body, established outside the Civil Service, should be created to supervise the markets. It should be headed and staffed by full-time regulators and funded largely by the market.

U.S. Interagency Working Group 5/

The Working Group should continue to function as a coordinating and consulting mechanism for intermarket issues.

## 2. International coordination

Federation of German Stock  
Exchanges 15/

Concerned that there is a tendency within a basically very sensible process of international cooperation among supervisory bodies toward excessive regulators in securities' trading and the harmonization of legal regulations, through which the efficiency and flexibility of the stock exchanges is being weakened without achieving better investor protection.

U.S. G.A.O. 4/

Some equity market issues can only be addressed in conjunction with regulators in other countries.

U.S. SEC 11/

Events of October 1987 emphasize the need for greater international cooperation and initiatives.

Securities Review Committee  
(Hong Kong) 6/

There should be participation on all levels to the growing debate as to how to best regulate geographically diversified securities business and groups.

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Footnotes

- 1/ Bank of England, "The Equity Market Crash," Quarterly Bulletin, Vol. 28, No. 1 (London, February 1988), pp. 51-58.
- 2/ Commission De Réflexion Sur Les Nouveaux Instruments Et Les Marché, à Terme, Rapport Général (France, March 1988).
- 3/ Report of the Presidential Task Force on Market Mechanisms (Washington, D.C., January 1988).
- 4/ U.S. General Accounting Office, Financial Markets, Preliminary Observations on the October 1987 Crash (Washington, D.C., January 1988).
- 5/ Interim Report on the Working Group on Financial Markets (Washington, D.C.), May 1988.
- 6/ The Operation and Regulation of the Hong Kong Securities Industry, Report of the Securities Review Committee, (Hong Kong, 1988).
- 7/ Miller, Morton H., John D. Hawke, Burton Malkiel, and Myron Scholes, Preliminary Report of the Committee of Inquiry Appointed by the Chicago Mercantile Exchange to Examine the Events Surrounding October 19, 1987 (Chicago, Illinois, December 22, 1987).
- 8/ International Stock Exchange of the United Kingdom and the Republic of Ireland, Quality of the Markets Quarterly (London, Winter 1987/88 and Spring 1988).
- 9/ National Companies and Securities Commission, Report on Issues Arising out of the Stock Market Crash of October 1987 (Australia, May 1988).
- 10/ Katzenback, Nicholas de B., An Overview of Program Trading and its Impact on Current Market Practices, A study commissioned by the New York Stock Exchange (New York, New York, December 1987).
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- 12/ The Chicago Board of Trade, The Chicago Board of Trade's Response to the Presidential Task Force on Market Mechanisms (Chicago, Illinois, December 1987).
- 13/ U.S. Commodity Futures Trading Commission, Interim Report on Stock Index Futures and Cash Market Activity During October 1987 (Washington, D.C., November 9, 1987.) Follow-up Report on Financial Oversight of Stock Index Futures Markets During October 1987 (Washington, D.C., January 6, 1988).
- 14/ This committee was to include the Governor of the Banque de France, the Chairman of the Futures Markets Council, and Chairman of the Stock Exchange Council, the Chairman of the Paris Clearing and Settlement System, and the Director of the Treasury.
- 15/ Federation of the German Stock Exchanges, Annual Report 1987 (Frankfurt).

Table 45. Capital-Asset Ratios of Banks in Selected Industrial Countries, 1979-87 <sup>1/</sup>

(In percent)

	1979	1980	1981	1982	1983	1984	1985	1986	1987
Canada <sup>2/</sup>	3.2	3.0	3.5 <sup>3/</sup>	3.7	4.1	4.4	4.6	5.0	4.8
France <sup>4/</sup>	2.6	2.4	2.2	2.1	2.0	1.9	2.2	2.6	2.7
Germany, Fed. Rep. of <sup>5/</sup>	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.6	3.7
Japan <sup>6/</sup>	5.1	5.3	5.3	5.0	5.2	5.2	4.8	4.8	4.8
Luxembourg <sup>7/</sup>	...	3.5	3.5	3.5	3.6	3.8	4.0	4.1	4.1
Netherlands <sup>8/</sup>	4.3	4.2	4.3	4.6	4.7	4.8	5.0	5.2	5.6
Switzerland <sup>9/</sup>									
Largest five banks	7.6	7.6	7.4	7.3	7.1	7.1	7.8	7.8	7.9
All banks	7.6	7.6	7.5	7.5	7.3	7.4	7.8	7.9	8.0
United Kingdom									
Largest four banks <sup>10/</sup>	7.2	6.9	6.5	6.4	6.7	6.3	7.9	8.4	8.2
All banks <sup>11/</sup>	5.1	5.0	4.5	4.1	4.4	4.5	5.5	5.4	6.0
United States									
Nine money center banks <sup>12/</sup>	4.5	4.5	4.6	4.9	5.4	6.2	6.8	7.3	8.2
Next 15 banks <sup>12/</sup>	5.4	5.5	5.2	5.3	5.7	6.6	7.2	7.5	8.4
All country reporting banks <sup>12/</sup> , <sup>13/</sup>	5.3	5.4	5.4	5.6	5.9	6.5	6.9	7.2	7.1

Sources: Data provided by official sources; and Fund staff estimates.

<sup>1/</sup> Aggregate figures such as the ones in this table must be interpreted with caution, owing to differences across national groups of banks and over time in the accounting of bank assets and capital. In particular, provisioning practices vary considerably across these countries as do the definitions of capital. Therefore, cross-country comparisons may be less appropriate than developments over time within a single country.

<sup>2/</sup> Ratio of equity plus accumulated appropriations for contingencies (before 1981, accumulated appropriations for losses) to total assets (Bank of Canada Review).

<sup>3/</sup> The changeover to consolidated reporting from November 1, 1981 had the statistical effect of increasing the aggregate capital-asset ratio by about 7 percent.

<sup>4/</sup> Ratio of capital, reserves, and general provisions to total assets. Data exclude cooperative and mutual banks. This ratio is not the official one (ratio of risk coverage), which includes loan capital and subordinate loans in the numerator, while in the denominator, assets are assigned different weights depending on the quality of the assets. The official ratio provides the groundwork for the control of the banking activities by the Commission Bancaire (Commission de Contrôle des Banques, Rapport).

<sup>5/</sup> Ratio of capital including published reserves to total assets. From December 1985, the Bundesbank data incorporate credit cooperatives (Deutsche Bundesbank, Monthly Report).

<sup>6/</sup> Ratio of reserves for possible loan losses, specified reserves, share capital, legal reserves plus surplus and profits and losses for the term to total assets (Bank of Japan, Economic Statistics Monthly).

<sup>7/</sup> Ratio of capital resources (share capital, reserves excluding current-year profits, general provisions, and eligible subordinated loans) to total payables. Eligible subordinated loans are subject to prior authorization by the Institut Monétaire Luxembourgeois and may not exceed 50 percent of a bank's share capital and reserves. Data in the table are compiled on a nonconsolidated basis and as a weighted average of all banks (excluding foreign bank branches). An arithmetic mean for 1987 would show a ratio of 12.6 percent. Inclusion of current-year profits in banks' capital resources would result in a weighted average of 4.3 percent for 1987. Provisions for country risks, which are excluded from capital resources, have been moderately increased in the last year. The 1987 level of provision represents five times the level of 1982.

<sup>8/</sup> Ratio of capital, disclosed free reserves, and subordinated loans to total assets. Eligible liabilities of business members of the agricultural credit institutions are not included (De Nederlandsche Bank, N.V., Annual Report).

<sup>9/</sup> Ratio of capital plus published reserves, a part of hidden reserves, and certain subordinated loans to total assets (Swiss National Bank, Monthly Report).

<sup>10/</sup> Ratio of share capital and reserves, plus minority interests and loan capital, to total assets (Bank of England).

<sup>11/</sup> Ratio of capital and other funds (sterling and other currency liabilities) to total assets (Bank of England). Note that these figures include U.K. branches of foreign banks, which normally have little capital in the United Kingdom.

<sup>12/</sup> Ratio of total capital (including equity, subordinated debentures, and reserves for loan losses) to total assets.

<sup>13/</sup> Reporting banks are all banks which report their country exposure for publication in the Country Exposure Lending Survey of the Federal Financial Institutions Examination Council.