

## TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

*October-December 2001*

During the fourth quarter of 2001, the dollar appreciated 9.2 percent against the yen and 2.4 percent against the euro amid perceptions that U.S. economic activity would outpace that of the euro area and Japan. After rising and then falling in the first half of the quarter, the dollar rose again in the last two weeks of December, leaving it 3.2 percent stronger against the currencies of other large industrial countries. On December 26, the trade-weighted dollar was at its highest level since 1986. The yen depreciated 8.3 percent on a trade-weighted basis as Japan's economic and financial outlook appeared to worsen and as investors interpreted comments made later in the quarter by Japanese officials as suggesting tolerance for a weaker yen.

The U.S. monetary authorities did not intervene in the foreign exchange markets during this quarter. The thirty-day reciprocal swap arrangements, established by the Federal Reserve System with the European Central Bank (ECB) and the Bank of England in the prior quarter, expired. The temporary augmentation to the existing swap facility with the Bank of Canada also expired. There were no drawings from these facilities in the fourth quarter.

### DOLLAR APPRECIATES AMID CONTINUING ECONOMIC UNCERTAINTY FOLLOWING TERRORIST ATTACKS

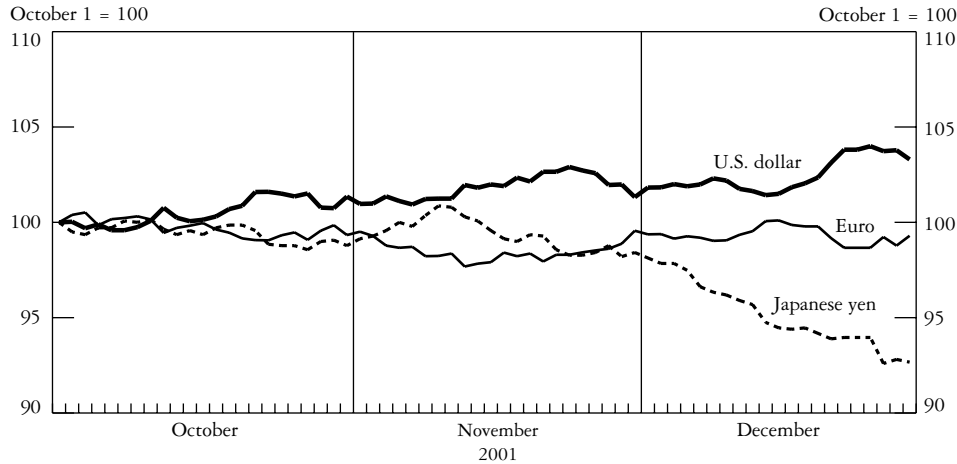
The dollar appreciated against most major currencies despite lingering uncertainty about the economic impact of the September 11 terrorist attacks on the United States. Economic data released in October generally indicated a protraction of the U.S. economic downturn and suggested that the events of

*This report, presented by Dino Kos, Executive Vice President, Federal Reserve Bank of New York, and Manager, System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from October 2001 through December 2001. Evangeline Sophia Drossos was primarily responsible for preparation of the report.*

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September 11 exacerbated weakness in certain sectors of the economy. Many investors focused on indications of reduced consumer activity in assessing their outlooks for economic recovery. The Confidence Board's index of consumer confidence fell to its lowest level since 1994 and retail sales declined 2.4 percent in September from August, the largest monthly decline on record. In addition, new orders for durable goods fell 8.5 percent in September to their lowest levels since 1996. These data helped to reinforce expectations for continuing cyclical weakness in the U.S. economy.

*Chart 1*  
**TRADE-WEIGHTED G-3 CURRENCIES**



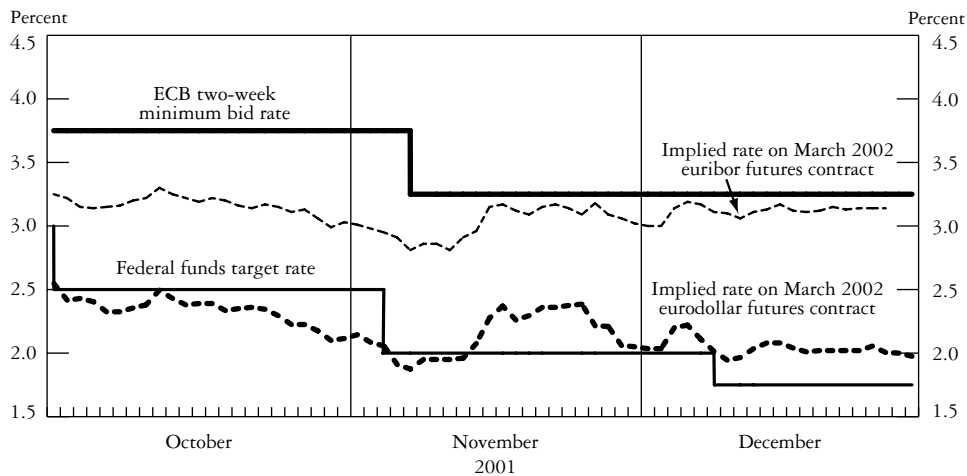
Source: Board of Governors of the Federal Reserve System, Bank of England.

The economic outlook in other industrialized economies also was weak during this period, with data from the euro-area countries pointing to deteriorating conditions, particularly in consumer sentiment. Market participants suggested that the synchronized nature of the global downturn reportedly shifted investor focus to countries perceived to be best positioned to outperform during a future phase of economic recovery.

Partly in response to indications of further deterioration in the global growth slowdown, many central banks continued to ease their monetary policies. The Federal Open Market Committee lowered the target federal funds rate on three separate occasions over the quarter for a total of 125 basis points, bringing the policy rate to 1.75 percent. On November 8, the ECB lowered its two-week minimum bid rate 50 basis points to 3.25 percent, and on December 19, the Bank of Japan announced an increase in its target for current account reserve balances. In addition, market participants continued to perceive

that fiscal policy in the United States would be more responsive to the global slowdown relative to fiscal policies in other Group of Three (G-3) economies. The dollar reportedly benefited from expectations that continued U.S. monetary and fiscal stimulus would lead the U.S. economy to a recovery ahead of other major economies.

*Chart 2*  
**U.S. AND EURO-AREA POLICY RATES AND IMPLIED RATES  
 ON INTEREST RATE FUTURES CONTRACTS**



Source: Bloomberg L.P.

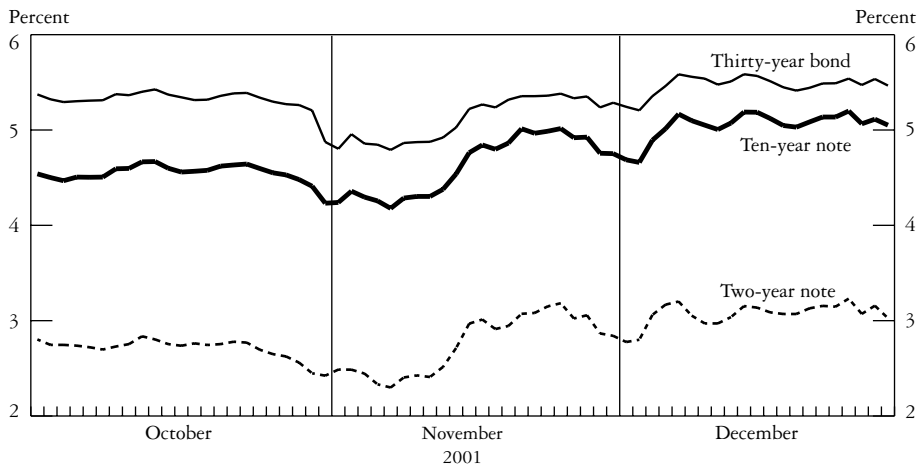
**DOLLAR EXTENDS GAINS LATER IN THE QUARTER AMID INCREASED  
 EXPECTATIONS FOR A POSSIBLE U.S. ECONOMIC REBOUND**

The dollar reached a multiyear high on a trade-weighted basis by the end of the year, even amid evidence of an ongoing contraction in economic activity and other global risk factors. Market participants continued to favor the dollar over other G-3 currencies, given expectations that the U.S. economy would outperform the euro area and Japan. In November, several U.S. data releases fueled optimism that the worst of the economic downturn had passed, prompting investors to bring forward expectations for a rebound in economic activity. A larger-than-expected rise in October retail sales data and an improvement in consumer sentiment and business activity surveys increased expectations for the possibility of a more rapid recovery in U.S. growth. Reports of positive developments in the war in Afghanistan further boosted optimism.

However, market participants remained divided over the timing of a U.S. economic recovery. Against this backdrop, investors noted that market positioning and somewhat illiquid trading conditions exacerbated price volatility in the U.S. fixed income and interest rate futures markets. Investors' expectations for future U.S. economic performance, as expressed across markets, were mixed. Through the end of October, U.S. Treasury yields declined across the coupon curve and implied yields on interest rate futures contracts fell as investors priced in a greater perceived probability of additional monetary easing amid the deterioration in economic activity. Some investors reportedly reallocated into safer investments amid perceptions of event risk associated with U.S. military action and the threat of additional terrorist attacks, which also pressured yields lower. Later in the quarter, however, Treasury yields rose as investors reallocated into higher-yielding assets, given their increased optimism about the near-term performance of the U.S. economy. Meanwhile, U.S. equity indices rebounded from lows reached in the initial weeks of trading following the September 11 attacks, as investors in these markets appeared to anticipate a turn in the U.S. economic cycle. In contrast with fixed income markets, the Dow Jones Industrial Average and the Nasdaq rose strongly, increasing 13 percent and 30 percent during the quarter, respectively. The dollar remained resilient despite volatility in other U.S. asset markets and appreciated through most of the quarter, retracing its losses following the September 11 terrorist attacks.

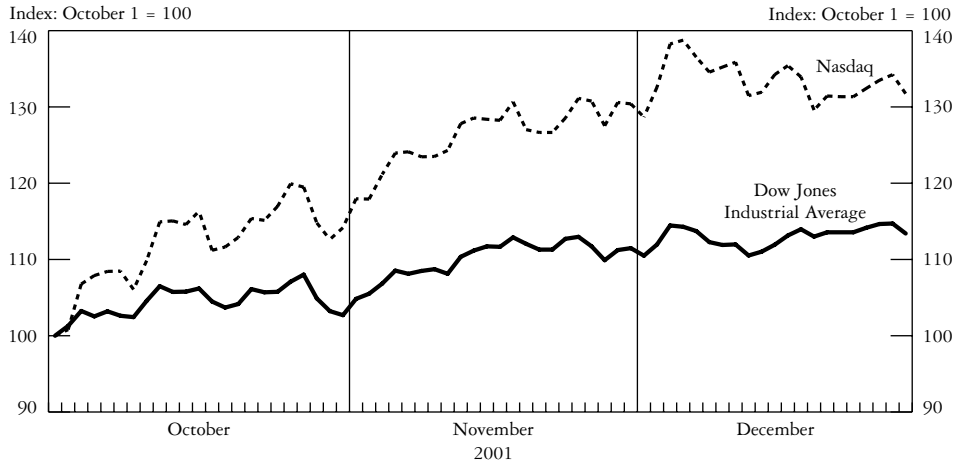
Chart 3

U.S. TREASURY COUPON YIELDS



Source: Bloomberg L.P.

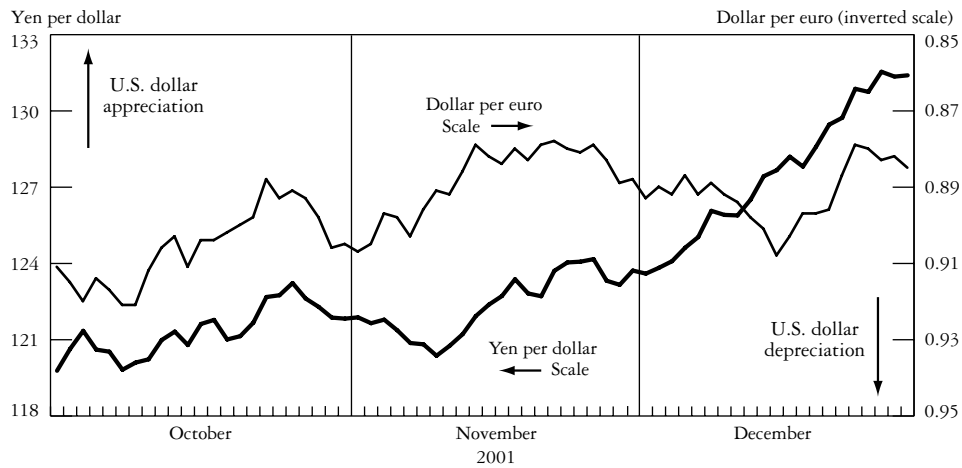
Chart 4  
U.S. EQUITY MARKET INDEXES



Source: Bloomberg L.P.

In contrast, data in the euro area, particularly Germany, showed ongoing weakness in the manufacturing sector. Larger-than-expected declines in German factory orders and purchasing managers' surveys, and a steady erosion in industrial and consumer confidence data suggested to some that the euro-area economic cycle had not yet reached a bottom. After indicating relatively flat growth in the second quarter, German GDP data showed the economy contracted about 0.1 percent in the third quarter.

Chart 5  
THE DOLLAR AGAINST THE EURO AND THE YEN



Source: Bloomberg L.P.

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In Japan, data released over the fourth quarter indicated the worst annual rate of contraction in industrial production since 1975, the highest post-World War II level of unemployment, and a further decline in consumer prices. Market participants also focused on third quarter GDP data, which showed a 2.2 percent annual decline. Following a 4.7 percent rate of annual contraction in second-quarter growth, these data confirmed Japan's second recession in three years. These indications of a worsening economic downturn appeared to shift the balance of risks toward a weaker yen. After trading through much of the year within a range of ¥120 to ¥125 per dollar, the yen depreciated sharply against the dollar over the last weeks of the year, reaching ¥132 per dollar, its weakest level in three years.

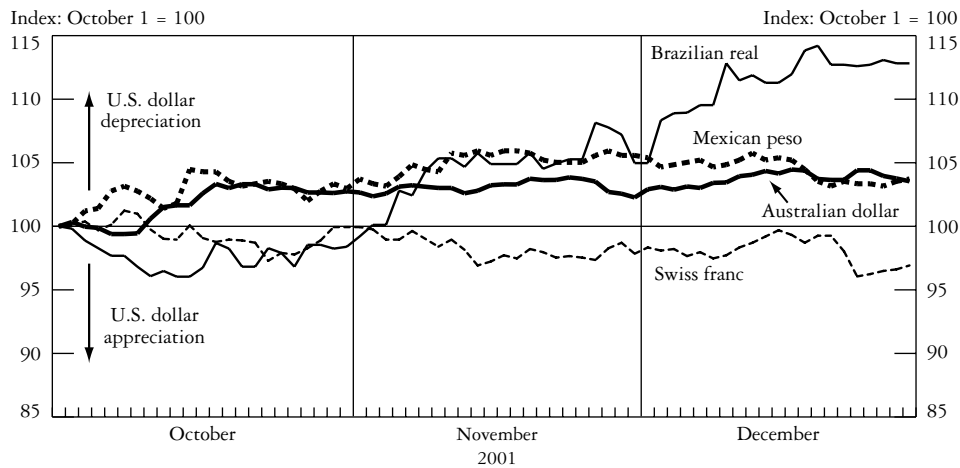
Further deterioration in economic data, continued downward revisions to official growth forecasts, and three sovereign credit rating downgrades weighed on the yen, which depreciated 5 percent to 14 percent against other major currencies over the fourth quarter. Late in the quarter, in the span of one week, three major ratings agencies downgraded Japan's long-term local and foreign currency sovereign credit rating, citing slow progress in structural reform, weakness in the financial sector, and a rising debt burden. The ratings agencies also maintained a negative credit outlook for Japan. Moreover, growing perception of official tolerance of a weaker currency also pressured the yen lower in December. Ministry of Finance officials publicly characterized the yen's depreciation as "corrective," with Vice Finance Minister Kuroda stating that the yen "is in a phase to correct its level." Additionally, market participants interpreted comments from Japanese officials as suggesting little inclination among monetary authorities to act to stem the yen's decline. Finance Minister Shiokawa and Prime Minister Koizumi stated on several occasions that the exchange value of the yen should be left to the market. Meanwhile, some investors indicated that the yen's decline may have been tempered by reactions from other Asian monetary officials, who publicly voiced concern over the regional impact of yen depreciation.

#### RISK AVERSION MODERATES

Over the fourth quarter, the increased risk aversion that prevailed in the initial weeks following September 11 moderated further. However, anecdotal reports suggested that most investors continued to refrain from taking large directional bets and that trading activity remained below historical levels. Movements of G-3 exchange rates over the quarter tended to be gradual with low observed volatility contributing to low levels of option-implied volatility. This occurred despite heightened perceptions of event risk stemming from U.S. military activity, the potential for further terrorist activities, and the shifting outlook for the global economy.

Relatively stable currency market conditions late in the quarter and the modest improvement in the global growth outlook appeared to impact short-term foreign exchange flows. The Australian dollar, seen by some investors as heavily influenced by the global growth cycle, reversed much of its sharp losses from the previous quarter. The Swiss franc, which had reportedly benefited from so-called safe haven flows following the terrorist attacks, depreciated broadly over the quarter. Meanwhile, concerns about potential contagion to other emerging markets from an Argentine default or devaluation seemed to be contained. Despite the sharp depreciation implied by Argentine peso nondeliverable forward contracts, the Brazilian real and the Mexican peso broadly appreciated, suggesting investors viewed developments in Argentina as isolated.

Chart 6  
U.S. DOLLAR AGAINST FOREIGN CURRENCIES



Source: Bloomberg L.P.

#### TEMPORARY SWAP LINES WITH OTHER CENTRAL BANKS EXPIRE

In mid-September, to facilitate the functioning of financial markets and provide liquidity in U.S. dollars in the wake of the September 11 attacks, the Federal Reserve established temporary reciprocal swap arrangements with the ECB and the Bank of England, and augmented an existing swap facility already in place with the Bank of Canada. Under the terms of these agreements, the ECB, the Bank of England and the Bank of Canada were able to draw up to \$50 billion, \$30 billion, and \$10 billion, respectively, in exchange for local currency. The temporary swap arrangements with the ECB and the Bank of

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England, as well as the augmentation with the Bank of Canada, expired in October. As reported last quarter, the ECB was the only central bank to draw on these lines, drawing on three separate occasions a total of \$23.4 billion, which was fully repaid in the third quarter. During the fourth quarter, none of the central banks drew on their respective swap lines.

#### TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE RESERVES

The U.S. monetary authorities did not undertake any intervention operations during the quarter. At the end of the quarter, the current values of euro and yen reserve holdings totaled \$14.6 billion for the Federal Reserve's System Open Market Account and \$14.6 billion for the Treasury's Exchange Stabilization Fund. The U.S. monetary authorities invest their foreign currency balances in a variety of instruments that yield market-related rates of return and have a high degree of liquidity and credit quality. To the greatest extent possible, these investments are split evenly between the Federal Reserve and the Treasury.

A significant portion of the U.S. monetary authorities' foreign exchange reserves is invested in European and Japanese government securities held outright or under repurchase agreement. Under euro-denominated repurchase agreements, the U.S. monetary authorities accept sovereign debt backed by the full faith and credit of the following governments: Belgium, France, Germany, Italy, the Netherlands, and Spain. Foreign currency reserves also are invested in deposits at the Bank for International Settlements and in facilities at other official institutions. As of December 31, direct holdings of foreign government securities totaled \$13 billion, split evenly between the Federal Reserve and the Treasury. Foreign government securities held under repurchase agreements totaled \$3.1 billion at the end of the quarter and also were split evenly between the two authorities.



Table 1

**FOREIGN CURRENCY HOLDINGS OF U.S. MONETARY AUTHORITIES,  
BASED ON CURRENT EXCHANGE RATES**

Millions of Dollars

	Quarterly Changes in Balance by Source						Balances as of December 31, 2001
	Balances as of September 30, 2001	Net Purchases and Sales <sup>a</sup>	Impact of Sales <sup>b</sup>	Interest Collected <sup>c</sup>	Revaluation <sup>d</sup>	Interest Accrual and Other <sup>e</sup>	
<b>Federal Reserve System</b>							
<b>Open Market Account (SOMA)</b>							
Euro	7,380.6	0.0	0.0	70.9	(163.6)	(0.3)	7,287.6
Japanese yen	7,920.0	0.0	0.0	0.3	(713.8)	(0.1)	7,206.4
Subtotal	15,300.6	0.0	0.0	71.2	(877.4)	(0.4)	14,494.0
Interest receivable	65.4	0.0	0.0	0.0	(1.4)	1.6	65.6
Total	15,366.0	0.0	0.0	71.2	(878.8)	1.2	14,559.6
<b>U.S. Treasury Exchange</b>							
<b>Stabilization Fund (ESF)</b>							
Euro	7,373.9	0.0	0.0	70.8	(163.3)	(0.8)	7,280.6
Japanese yen	7,920.1	0.0	0.0	0.3	(713.9)	(0.1)	7,206.4
Subtotal	15,294.0	0.0	0.0	71.1	(877.2)	(0.9)	14,487.0
Interest receivable	65.4	0.0	0.0	0.0	(1.4)	1.5	65.5
Total	15,359.4	0.0	0.0	71.1	(878.6)	0.6	14,552.5

Note: Balances are stated at amortized cost.

<sup>a</sup> Purchases and sales include foreign currency purchases and sales related to official activity, swap drawings and repayments, and warehousing.

<sup>b</sup> Gains and losses on sales are calculated using average cost.

<sup>c</sup> Interest-collected figures are stated at the foreign exchange rate on the date of the receipt.

<sup>d</sup> Reserve assets balances are revalued daily at prevailing exchange rates.

<sup>e</sup> Includes interest accrued, current amortization, and original premium and discount of matured securities.

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*Table 2***NET PROFITS (LOSSES) ON U.S. TREASURY AND FEDERAL RESERVE  
FOREIGN EXCHANGE OPERATIONS**

Millions of Dollars

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	Federal Reserve System Open Market Account	U.S. Treasury Exchange Stabilization Fund
July 1, 2001, to September 30, 2001		
Unrealized profits (losses) from foreign currency holdings		
Euro	505.9	505.5
Japanese yen	349.2	349.2
Subtotal	<u>855.1</u>	<u>854.7</u>
Realized profits (losses) from foreign currency sales		
Euro	0.0	0.0
Japanese yen	0.0	0.0
Subtotal	<u>0.0</u>	<u>0.0</u>
<b>Profit (Loss) from Foreign Exchange Operations</b>		
<b>Total</b>	<u><u>855.1</u></u>	<u><u>854.7</u></u>
October 1, 2001, to December 31, 2001		
Unrealized profits (losses) from foreign currency holdings		
Euro	(165.0)	(164.7)
Japanese yen	(713.8)	(713.9)
Subtotal	<u>(878.8)</u>	<u>(878.6)</u>
Realized profits (losses) from foreign currency sales		
Euro	0.0	0.0
Japanese yen	0.0	0.0
Subtotal	<u>0.0</u>	<u>0.0</u>
<b>Profit (Loss) from Foreign Exchange Operations</b>		
<b>Total</b>	<u><u>(878.8)</u></u>	<u><u>(878.6)</u></u>

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*Table 3*

FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS

Millions of Dollars

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<u>Institution</u>	<u>Amount of Facility</u>	<u>Outstanding as of December 31, 2001</u>
Bank of Canada	2,000	0
Bank of Mexico	<u>3,000</u>	<u>0</u>
Total	<u>5,000</u>	<u>0</u>

U.S. TREASURY EXCHANGE STABILIZATION FUND

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of Dollars

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<u>Institution</u>	<u>Amount of Facility</u>	<u>Outstanding as of December 31, 2001</u>
Bank of Mexico	3,000	0
Total	<u>3,000</u>	<u>0</u>