TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

October – December 2010

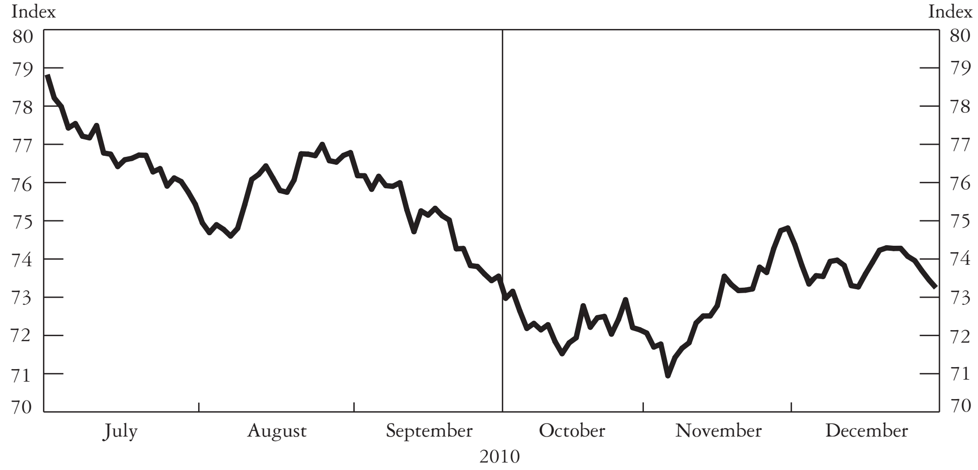
During the fourth quarter of 2010, the U.S. dollar's trade-weighted exchange value depreciated 0.4 percent, as measured by the Federal Reserve Board's major currencies index. The dollar appreciated 1.8 percent against the euro and depreciated 2.9 percent against the Japanese yen. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

In contrast to the third quarter during which the trade-weighted exchange value of the U.S. dollar depreciated sharply, the dollar was nearly unchanged on net over the period, as investors upgraded their outlook for the U.S. economy. The dollar depreciated modestly early in the quarter, as U.S. economic data showed signs of further weakness, continuing a trend observed toward the end of the third quarter. However, during November and December, the dollar was bolstered by signs of improvement in the U.S. economic outlook. The dollar was further supported against the euro as concerns about the fiscal challenges of certain euro-area countries reemerged.

This report, presented by Brian Sack, Executive Vice President, Federal Reserve Bank of New York, and Manager of the 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 through December 2010. Kevin McNeil was primarily responsible for preparation of the report.

Chart 1

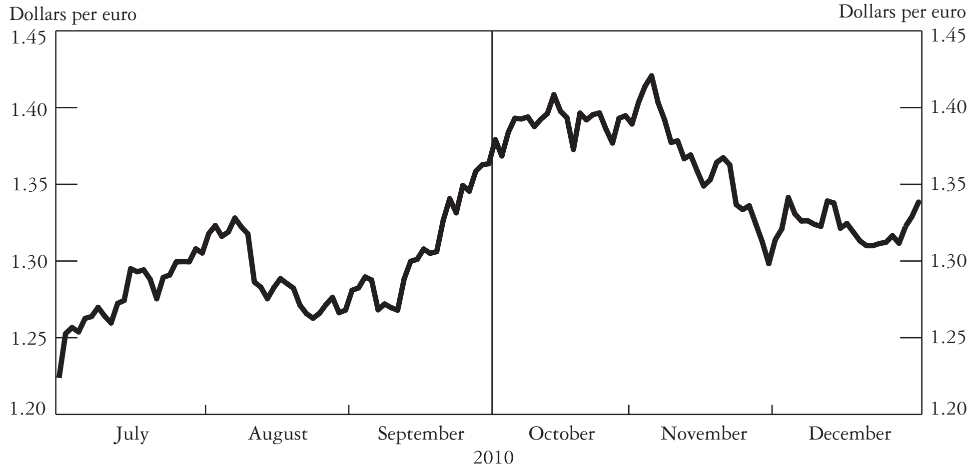
TRADE-WEIGHTED U.S. DOLLAR



Sources: Board of Governors of the Federal Reserve System; Bloomberg L.P.

Chart 2

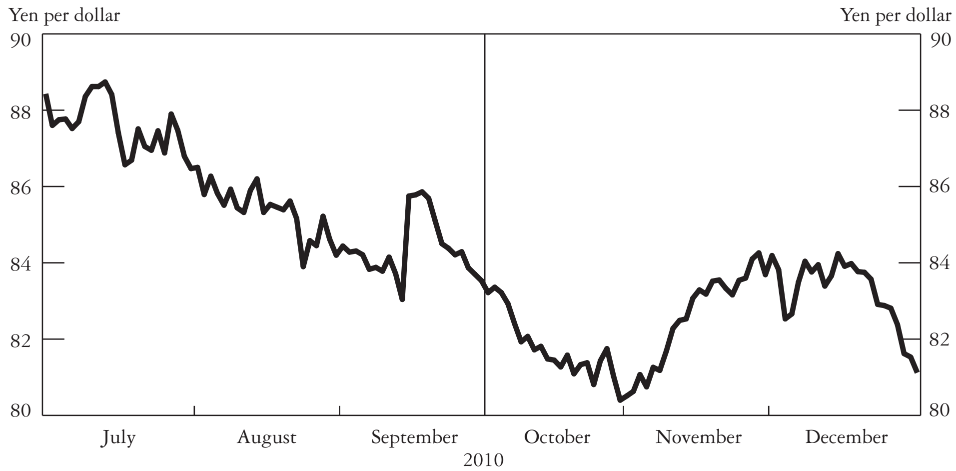
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

U.S. DOLLAR–YEN EXCHANGE RATE



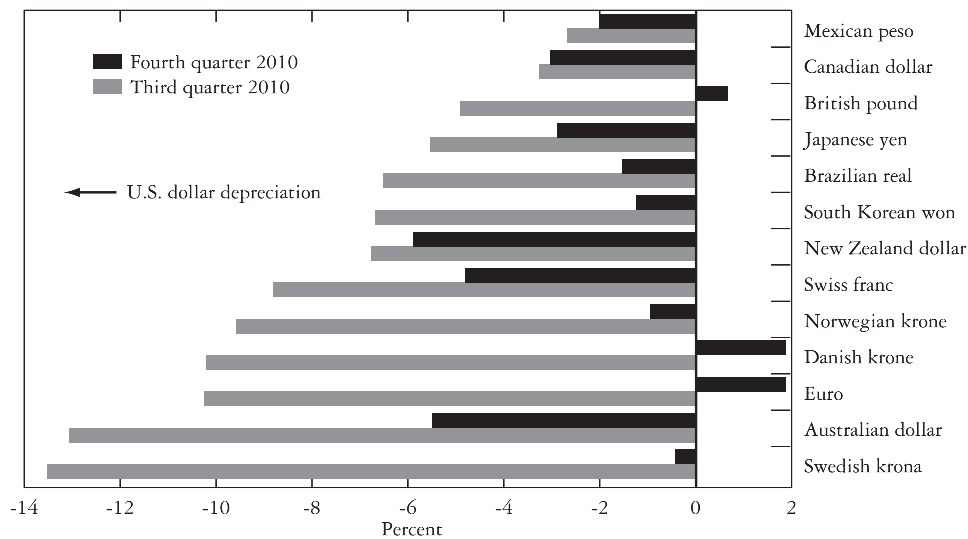
Source: Bloomberg L.P.

DOLLAR DEPRECIATION SLOWS ON IMPROVING U.S. ECONOMIC OUTLOOK

Throughout the fourth quarter, the exchange value of the U.S. dollar depreciated at a sharply slower rate than the rate witnessed in the third quarter, as a series of data releases pointed to an improving economic outlook. On the whole, the U.S. dollar's trade-weighted exchange value depreciated 0.4 percent.

Chart 4

U.S. DOLLAR AGAINST SELECTED CURRENCIES DURING THIRD AND FOURTH QUARTERS



Source: Bloomberg L.P.

Expectations for additional monetary policy accommodation in the United States were particularly high in the early part of the quarter due to concerns about the U.S. economic outlook. This sentiment contributed to a 2.5 percent decline in the trade-weighted value of the dollar leading up to the Federal Open Market Committee's (FOMC) meeting on November 3. In particular, September nonfarm payrolls and September inflation data releases contributed to a widely held view that the U.S. economy was not showing much improvement and that considerable downside

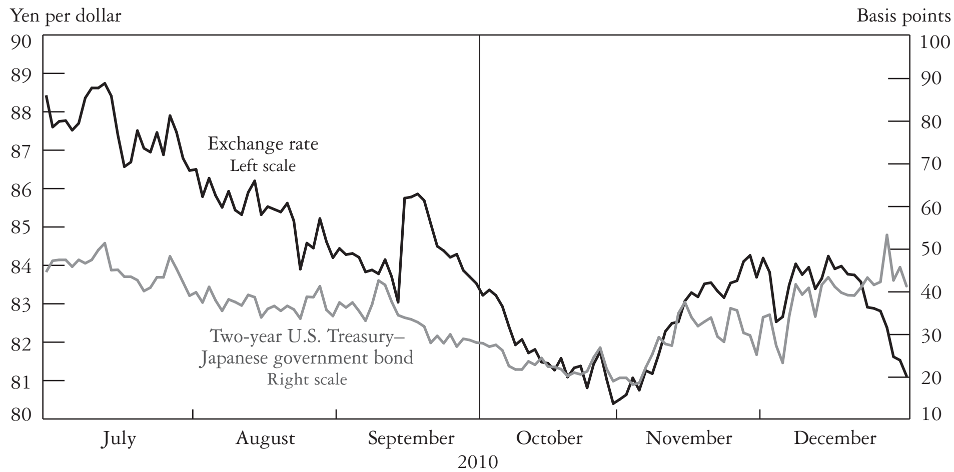
risks to growth remained. Furthermore, official communications, including the release of the September FOMC meeting minutes as well as speeches by senior Federal Reserve officials, were interpreted by market participants as supporting a case for additional monetary policy accommodation. At the November FOMC meeting, the Federal Reserve announced its intention to purchase $600 billion in longer term Treasury securities by the end of the second quarter of 2011, noting that progress toward its economic mandate had been "disappointingly slow." The trade-weighted value of the U.S. dollar reached its lowest point for 2010 on November 4, the day after the release of the November FOMC statement.

Following the November FOMC meeting, the dollar rose 2.1 percent on a trade-weighted basis through the end of the quarter, supported by signs of improvement in the U.S. outlook. In particular, initial jobless claims, nonfarm payrolls, consumer spending, and retail sales figures were better than expected. The improvement in the data led a number of analysts to upgrade their forecasts for GDP for the fourth quarter and for 2011. Additionally, the improved near-term economic outlook was supported by the enactment of the Tax Relief, Unemployment Income Reauthorization, and Job Creation Act of 2010, which resulted in further upgrades to analysts' 2011 growth forecasts. Consistent with an improving U.S. economic outlook, the yield on the ten-year U.S. Treasury note increased 78 basis points over the quarter. Other assets that are sensitive to the economic growth outlook appreciated sharply during the quarter, particularly during December. For example, commodity prices, as measured by the S&P GSCI index, advanced 8.0 percent in December. Consequently, during December, currencies closely linked to commodities, such as the Australian dollar, New Zealand dollar, and South African rand, appreciated sharply against the U.S. dollar.

During the quarter, the dollar depreciated 2.9 percent against the Japanese yen. Throughout this time, the dollar–yen currency pair tended to track closely the yield differentials between U.S. Treasury securities and Japanese government bonds. In early November, the U.S. dollar reached a fifteen-year, intraday low against the yen—¥80.22 per dollar—before recovering during the remainder of the month as the U.S. economic outlook improved. In the final weeks of the quarter, however, the yen appreciated sharply against the U.S. dollar, which market participants generally attributed to year-end repatriation and hedging activity by Japanese corporations and investment managers.

Chart 5

U.S. DOLLAR–YEN EXCHANGE RATE AND TWO-YEAR INTEREST RATE DIFFERENTIALS



Source: Bloomberg L.P.

IRISH BANKING PROBLEMS PROMPT CONCERNS OF BROADER CONTAGION EFFECTS IN THE EURO AREA

Throughout the quarter, the euro depreciated 1.8 percent against the U.S. dollar. The currency pair experienced a considerable amount of pressure amid escalating concerns about sovereign debt challenges faced by some European countries. Indeed, during the month of November, the euro–U.S. dollar exchange rate declined 6.6 percent.

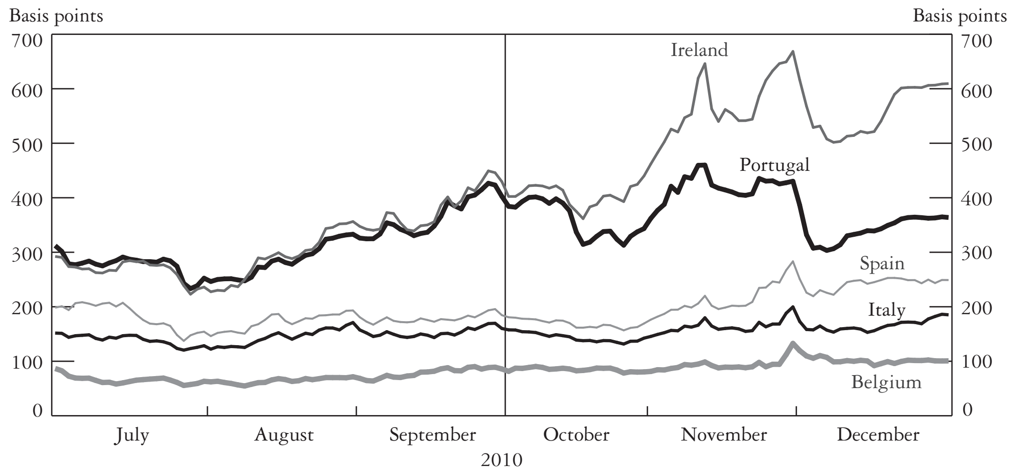
Developments in Ireland during the period intensified euro-area sovereign fiscal concerns that had been prompted by events in Greece earlier in the year. Beginning in October, concerns about the health of the Irish banking sector and the need for additional support by the Irish government began to increase. These concerns were prompted in part by a downgrade of the country's long-term credit rating owing to the larger-than-expected fiscal costs associated with support of the banking sector. Sentiment was also negatively affected by data indicating that Irish bank borrowing from the European Central Bank (ECB) had increased sharply, by the imposition of steep haircuts on subordinated debtholders of the nationalized Anglo Irish Bank, and by reports of significant deposit outflows at some of the country's financial institutions. Additionally, a major European clearinghouse's sharp increase in haircuts on Irish sovereign security repurchase agreement collateral also weighed on investor sentiment.

Concurrently, rumors increasingly circulated that Ireland was close to calling for external support from the International Monetary Fund (IMF). During November, Irish government bond yields increased dramatically, and sovereign credit default swap spreads widened significantly. Ultimately, on November 28, the Irish government, the European Union, and the IMF announced an agreement on a three-year, €85 billion support package, including €35 billion intended to support the banking sector.

The developments in Ireland increased market pressure in other euro-area countries, including Belgium, Italy, Portugal, and Spain. Shortly after the announcement of the €85 billion Irish support package, spreads on sovereign securities for these countries relative to German equivalents increased to record or near-record levels—reaching 133 basis points, 200 basis points, 431 basis points, and 283 basis points, respectively. Market participants attributed the rise in these countries' sovereign yields to concerns about the euro area's broader framework to support large sovereigns.

Chart 6

TEN-YEAR SOVEREIGN SPREADS TO GERMANY FOR SELECTED EURO-AREA COUNTRIES



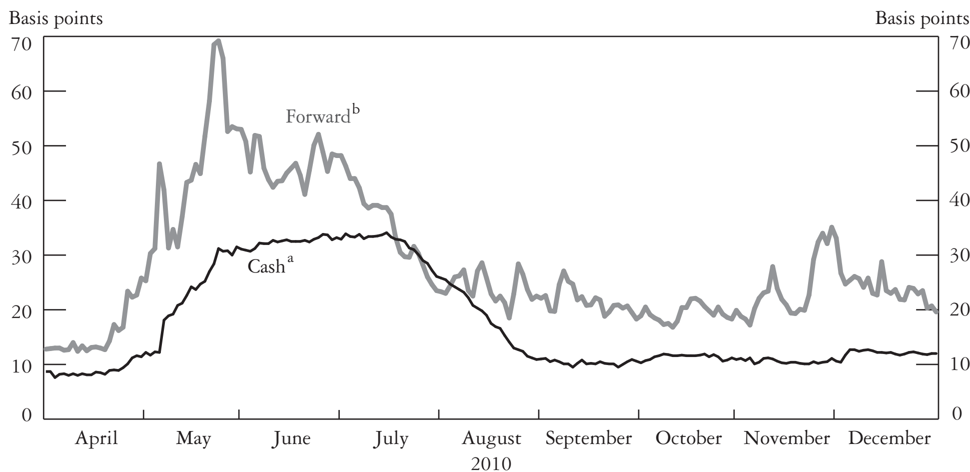
Source: Bloomberg L.P.

PRESSURES IN DOLLAR FUNDING MARKETS REEMERGE ON EURO-AREA CONCERNS

Pressures in international U.S. dollar funding markets reemerged during the fourth quarter, although widely monitored indicators of stress remained below the levels witnessed during the second quarter of 2010. Market participants attributed the deterioration in funding conditions primarily to escalating concerns over fiscal and banking problems in peripheral euro-area countries, particularly Ireland. Spreads between U.S. dollar Libor (London interbank offered rate) and the OIS (overnight indexed swap) rate at the three-month tenor were largely unchanged for the quarter, although both forward and implied measures were more volatile. Subtracting OIS from Libor removes the effect of the level of policy rates from the unsecured deposit rate, which provides an indication of credit and liquidity premiums. The spread between three-month FRAs (forward rate agreements) and three-month OIS, three months forward, reached a peak of 38 basis points at the end of November, before declining to 20 basis points at quarter-end. Additionally, the three-month dollar funding rates implied from swapping euros for dollars in the foreign exchange swap market peaked at about 58 basis points, but declined to about 53 basis points by the end of the year.

Chart 7

U.S. DOLLAR INTERBANK RATES LESS EXPECTED POLICY RATES



Source: Bloomberg L.P.

[a] Three-month Libor less overnight index swap rate.

[b] Three-month spread, three months forward.

APPRECIATION OF EMERGING-ECONOMY CURRENCIES SLOWS

Compared with activity in the third quarter, the dollar depreciated at a significantly slower pace against a number of emerging-economy currencies. Market participants reported increased intervention activity among several emerging-market central banks. Indeed, many central banks, particularly in Asia and Latin America, reported increased accumulation of foreign exchange reserves. For example, the foreign reserves of Singapore, Thailand, and Brazil rose by between $8 billion and $12 billion each during the quarter (according to data released by the countries' respective central banks). Notably, China's foreign exchange reserves rose by a record $199 billion, to $2.847 trillion (according to data released by the People's Bank of China). Additionally, concerns over the impact of excess capital flows resulting in local currency appreciation against the U.S. dollar and increased volatility in asset prices prompted some authorities in several emerging markets—including China, Brazil, Indonesia, Korea, Taiwan, and Thailand—to tighten monetary policy and make modifications to capital account regulations and other macroprudential policies to restrain currency appreciation and volatility stemming from heightened capital inflows.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE HOLDINGS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. As of December 31, 2010, the value of the foreign-currency-denominated assets in the U.S. Treasury's Exchange Stabilization Fund totaled $26.03 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled $26.13 billion, comprised of $26.05 billion of foreign exchange reserve portfolio investments and $0.08 billion carrying value of outstanding swaps with authorized foreign central banks.

Temporary Reciprocal Currency Arrangements (Dollar Liquidity Swap Lines)

The FOMC authorized an extension through August 1, 2011, of its temporary U.S. dollar liquidity swap arrangements with the Bank of Canada (BoC), the Bank of England (BoE), the ECB, the Bank of Japan (BoJ), and the Swiss National Bank (SNB). The swap arrangements, reestablished in May 2010, would have expired on January 31, 2011. The BoE, ECB, BoJ, and SNB have unlimited swap line amounts, while the Bank of Canada has a $30 billion swap line. As of December 31, the ECB had $75 million outstanding, and the BoC, BoE, BoJ, and SNB had not utilized their swap lines.

Foreign Exchange Reserve Holdings

The U.S. monetary authorities invest their foreign currency reserves in a variety of instruments that yield market rates of return and have a high degree of liquidity and credit quality. To the greatest extent practicable, the investments are split evenly between the System Open Market Account and the Exchange Stabilization Fund. A significant portion of the U.S. monetary authorities' foreign exchange reserves is invested on an outright basis in German, French, and Japanese government securities. 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 are also invested at the Bank for International Settlements and in facilities at other official institutions. As of December 31, direct holdings of foreign government securities totaled $25.3 billion, split evenly between the Federal Reserve System Open Market Account and the U.S. Treasury Exchange Stabilization Fund. Foreign government securities held under repurchase agreements totaled $4.9 billion at the end of the quarter and were also split evenly between the two authorities.

Table 1

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

Millions of U.S. Dollars

		Change in Balances by Source				
	Carrying Value, September 30, 2010[a]	Net Purchases and Sales[b]	Investment Earnings[c]	Realized Gains/Losses on Sales[d]	Unrealized Gains/ Losses on Foreign Currency Revaluation[e]	Carrying Value, December 31, 2010[a]
Federal Reserve System						
Open Market Account (SOMA)						
Euro	14,299	0	48	0	(220)[f]	14,127
Japanese yen	11,568	0	9	0	345[f]	11,922
Total	25,866	0	57	0	125	26,049

	Carrying Value, September 30, 2010[a]	Change in Swaps Outstanding	Change in Accrued Interest Receivable	Change in Exchange Translation Liability on Foreign Exchange Swaps	Carrying Value, December 31, 2010[a]
Reciprocal currency arrangements					
Euro	60	15	0	2[f,g]	77
Japanese yen	1	(1)	(0)	(0)[f,g]	0
Total	61	14	0	1	77

		Change in Balances by Source				
	Carrying Value, September 30, 2010[a]	Net Purchases and Sales[b]	Investment Earnings[c]	Realized Gains/Losses on Sales[d]	Unrealized Gains/ Losses on Foreign Currency Revaluation[e]	Carrying Value, December 31, 2010[a]
U.S. Treasury Exchange						
Stabilization Fund (ESF)						
Euro	14,275	0	48	0	(220)	14,104
Japanese yen	11,568	0	9	0	345	11,922
Total	25,843	0	57	0	126	26,026

Note: Figures may not sum to totals because of rounding.

[a] Carrying value of the reserve asset position includes interest accrued on foreign currency, which is based on the "day of" accrual method.

[b] Net purchases and sales include foreign currency purchases related to official activity, swap drawings and repayments, and warehousing.

[c] Investment earnings include accrued interest and amortization on outright and swap-related holdings.

[d] Gains and losses on sales are calculated using average cost.

[e] Reserve asset balances are revalued daily at the noon buying rates.

[f] Valuation adjustments on swap-related holdings do not affect profit and loss because the impact is offset by the unwinding of the forward contract at the repayment date.

[g] Figures represent the exchange translation liability on reciprocal currency arrangements.

Table 2

BREAKDOWN OF FOREIGN RESERVE ASSETS HELD

Carrying Value in Millions of U.S. Dollars, as of December 31, 2010

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets:	**14,104.1**	**14,127.0**
Cash held on deposit at official institutions	7,033.5	7,056.4
Marketable securities held under repurchase agreements[b]	2,467.4	2,467.4
Marketable securities held outright	4,603.1	4,603.1
German government securities	1,849.0	1,849.0
French government securities	2,754.2	2,754.2
Japanese-yen–denominated assets:	**11,922.1**	**11,922.1**
Cash held on deposit at official institutions	3,882.7	3,882.6
Marketable securities held outright	8,039.4	8,039.4
Reciprocal currency arrangements:		
Euro-denominated assets:		**76.5**
Other assets[c]		76.5
Japanese-yen–denominated assets:		**0.0**
Other assets[c]		0.0
Swiss-franc–denominated assets:		**0.0**
Other assets[c]		0.0
Canadian-dollar–denominated assets:		**0.0**
Other assets[c]		0.0
British-pound–denominated assets:		**0.0**
Other assets[c]		0.0

Note: Figures may not sum to totals because of rounding.

[a] As of December 31, the euro SOMA and ESF portfolios both had Macaulay durations of 9.0 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.5 months.

[b] Sovereign debt obligations of Belgium, France, Germany, Italy, the Netherlands, and Spain are currently eligible collateral for reverse repo transactions.

[c] Carrying value of outstanding reciprocal currency swaps with the European Central Bank, the Swiss National Bank, the Bank of Japan, the Bank of Canada, and the Bank of England.

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of December 31, 2010
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank[a]	Unlimited	75
Swiss National Bank[a]	Unlimited	0
Bank of Japan[a]	Unlimited	0
Bank of Canada[a]	30,000	0
Bank of England[a]	Unlimited	0
	Unlimited	75
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
Total	3,000	0

[a] Temporary swap arrangement.