TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

October – December 2011

During the fourth quarter, the U.S. dollar's nominal trade-weighted exchange value appreciated 0.7 percent, as measured by the Federal Reserve Board's major currencies index. The dollar appreciated 3.3 percent against the euro, but depreciated 0.2 percent against the Japanese yen. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

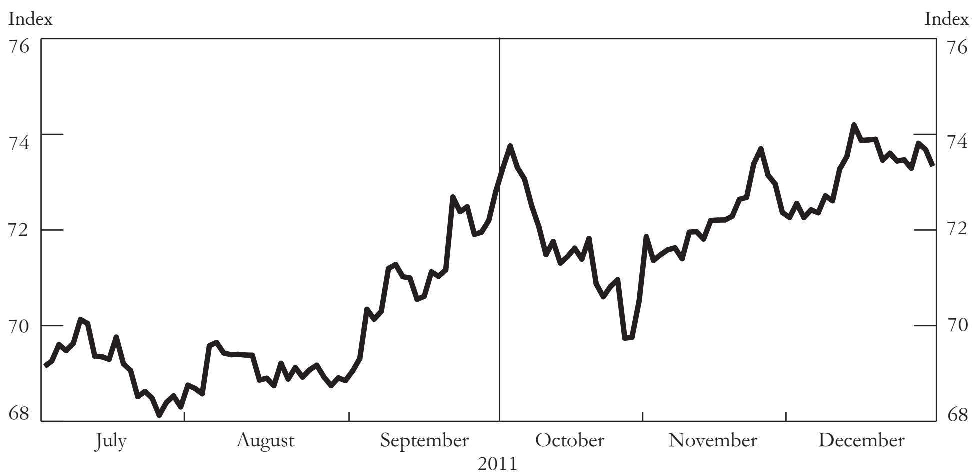
The dollar's appreciation against the euro occurred amid continued uncertainty about a resolution to the euro area's sovereign debt and banking crisis. Additionally, during the quarter market participants lowered their growth outlook for the euro area and increased their expectations for further monetary policy accommodation. These developments contributed to the euro's depreciation against the U.S. dollar to near its lowest level of the year. The dollar also appreciated 3.3 percent against the Swiss franc, as the franc remained largely anchored to the euro following the Swiss National Bank's (SNB) move to place a floor on the currency pair in early September.

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 2011. Jeffrey Kong was primarily responsible for preparation of the report.

The dollar's depreciation against the Japanese yen came about as the exchange rate for the pair reached a post-war record low, prompting Japanese authorities to intervene. On October 31, Japanese authorities sold yen against the dollar in the currency markets to depreciate the value of the yen. The U.S. dollar also depreciated 2 to 6 percent against some commodity-linked and emerging-market currencies, including the Australian dollar, Canadian dollar, New Zealand dollar, and South Korean won. These moves took place amid a rise in commodity prices and a reversal of negative risk sentiment, despite ongoing uncertainty about the euro-area fiscal crisis.

Chart 1

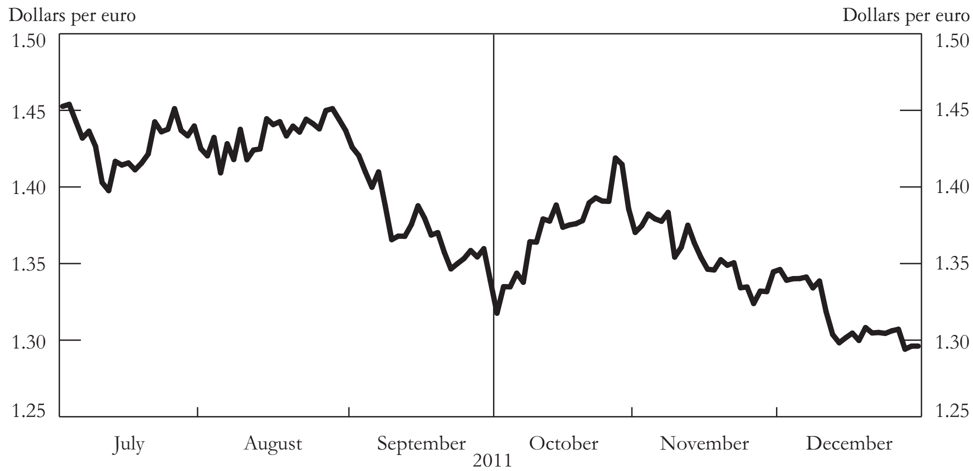
TRADE-WEIGHTED U.S. DOLLAR



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

Chart 2

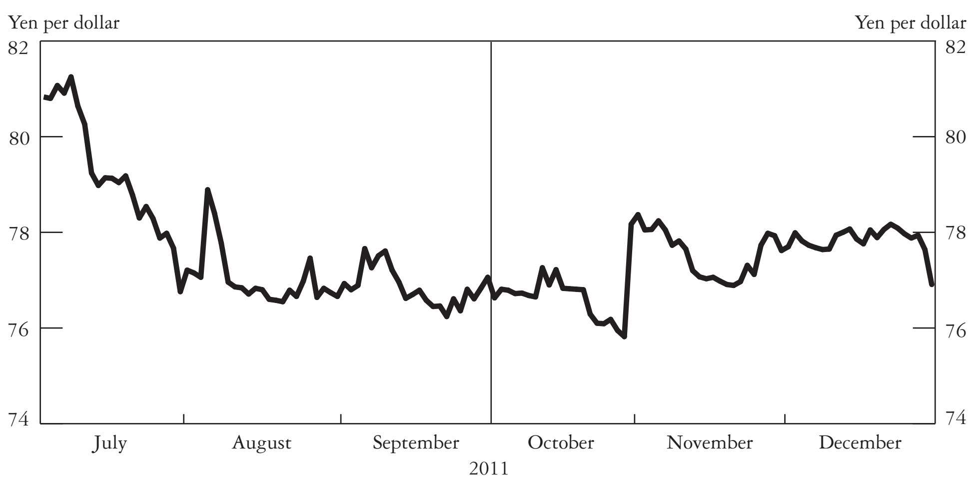
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

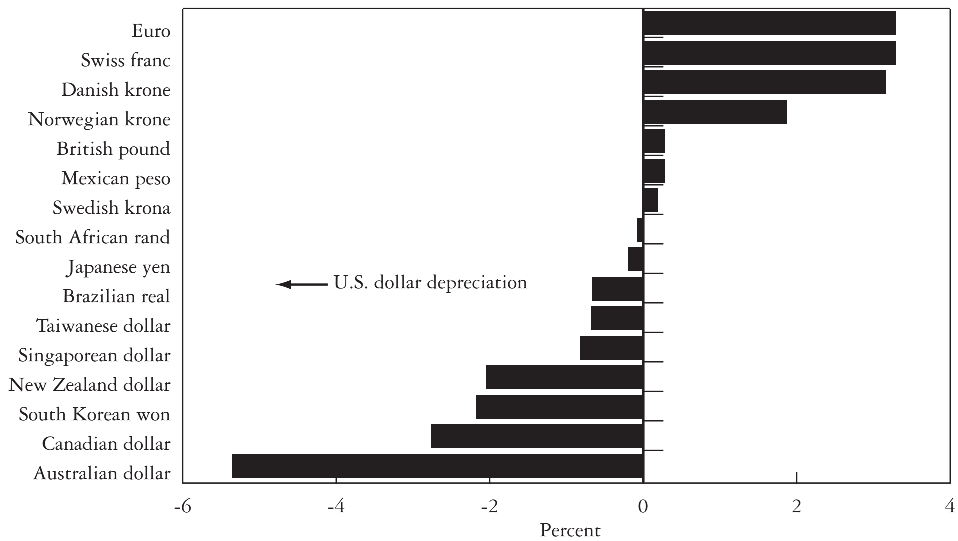
Chart 3

U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

Chart 4
U.S. DOLLAR AGAINST SELECTED CURRENCIES DURING FOURTH QUARTER



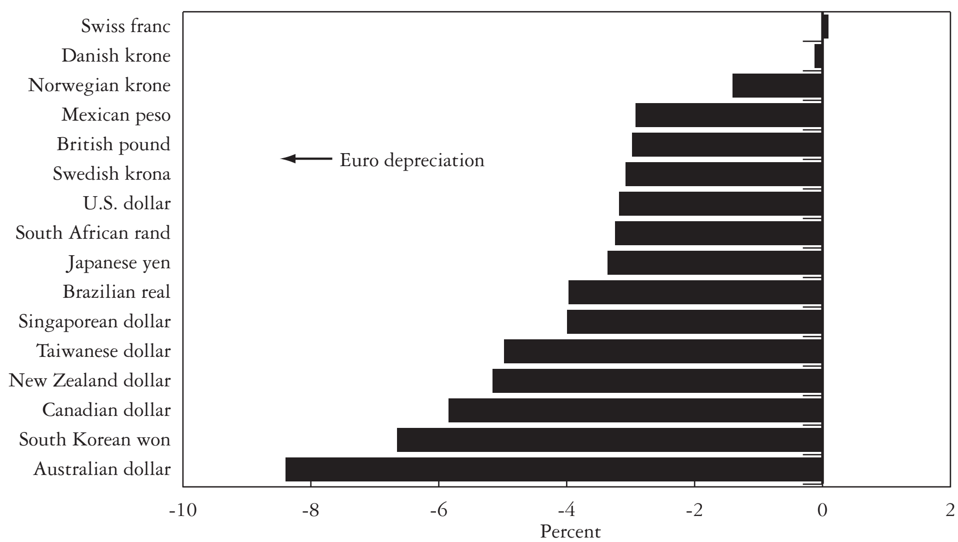
Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AGAINST EURO AMID CONTINUED UNCERTAINTY IN THE EURO AREA

The U.S. dollar appreciated 3.3 percent against the euro during the fourth quarter, ending the year at $1.2961 per euro—near its lowest level in 2011. Uncertainty about a resolution to the ongoing euro-area sovereign debt and banking crisis continued to weigh on sentiment toward the euro during the period. These concerns were particularly evident during November, when sovereign debt yields in some euro-area periphery countries, notably Italy, rose to their highest levels since the adoption of the euro. Additionally, the euro was affected by mounting concerns about the growth outlook for the euro area, market expectations for easier monetary conditions by the European Central Bank (ECB), and a number of negative rating actions on euro-area banks and sovereigns.

Chart 5

EURO AGAINST SELECTED CURRENCIES DURING FOURTH QUARTER



Source: Bloomberg L.P.

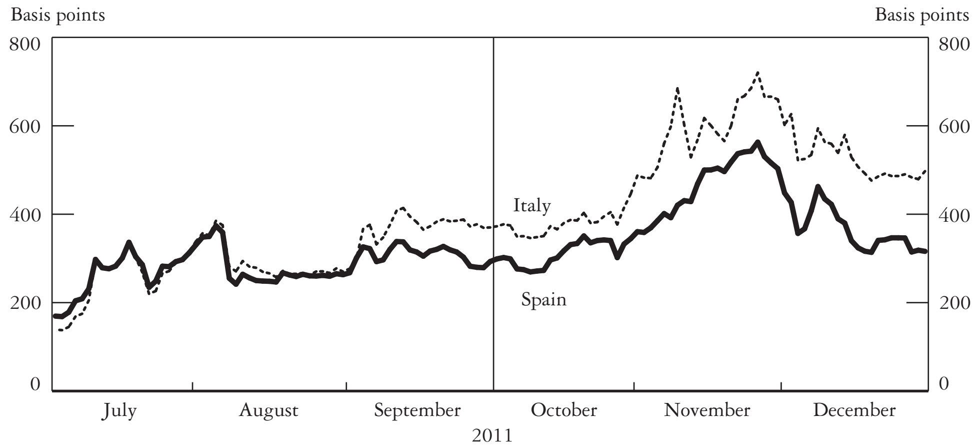
During the quarter, European authorities reached agreement on plans to address the sovereign debt and banking crisis. In particular, authorities agreed to strengthen the framework to limit government deficits, move forward the planned implementation date of the European Stability Mechanism by one year to mid-2012, adhere to International Monetary Fund (IMF) principles in involving the private sector in any future debt restructuring, and provide €200 billion to the IMF to increase general lending capacity. Market participants viewed this plan positively, but the perceived lack of detail and concern about the plan's implementation—owing to potential legal and political barriers as well as questions about whether these plans would be sufficient to achieve greater financial stability—continued to weigh on sentiment toward euro-area assets.

Shifts in relative growth and monetary policy expectations also helped support dollar strength during the quarter. Specifically, measures of euro-area industrial production and retail sales were generally weaker than expected, while U.S. labor market and retail sales data were better than expected. The ECB reduced its expectations for inflation and economic growth in 2012, leading it to lower its policy rate by 25 basis points in both November and December. These actions brought the ECB policy rate back to 1 percent, reversing the rate hikes in April and July, and helped narrow the yield spread between U.S. and German government debt. Indeed, during the quarter, the spread on two-year debt narrowed 41 basis points.

Negative rating actions on banks and sovereigns further weighed on sentiment toward the euro. In addition to a number of negative rating actions against euro-area periphery countries, Standard & Poor's (S&P) placed fifteen euro-area sovereigns on review for potential downgrades of one to two notches. Overall, rating agencies expressed concerns about weakening economic growth prospects and heavy bank and sovereign funding needs. These concerns contributed to a marked deterioration in sovereign debt markets. Indeed, two-year sovereign yields in Spain and Italy rose to record levels during the quarter, while spreads to equivalent German debt widened as much as 350 basis points. Market participants characterized liquidity in European sovereign debt markets as poor and noted deterioration in liquidity as the bid-ask spread on ten-year Italian bonds increased from approximately 4 basis points to 17 basis points during the quarter. Asset prices retraced much of this deterioration late in the quarter following the ECB's announcement of a new three-year Long-Term Refinancing Operation. Additionally, market participants attributed some improvement in sentiment to the coordinated central bank announcement of changes to the dollar liquidity swap arrangements, which included a reduction in the rate charged on borrowing and an extension of the swap arrangements through February 1, 2013.

Chart 6

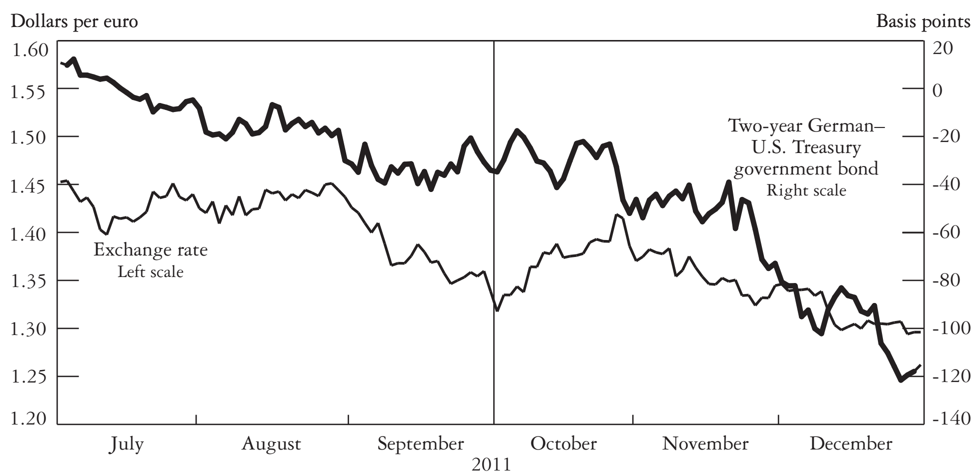
TWO-YEAR SPREADS OF ITALIAN AND SPANISH SOVEREIGN DEBT TO GERMAN EQUIVALENTS



Source: Bloomberg L.P.

Chart 7

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



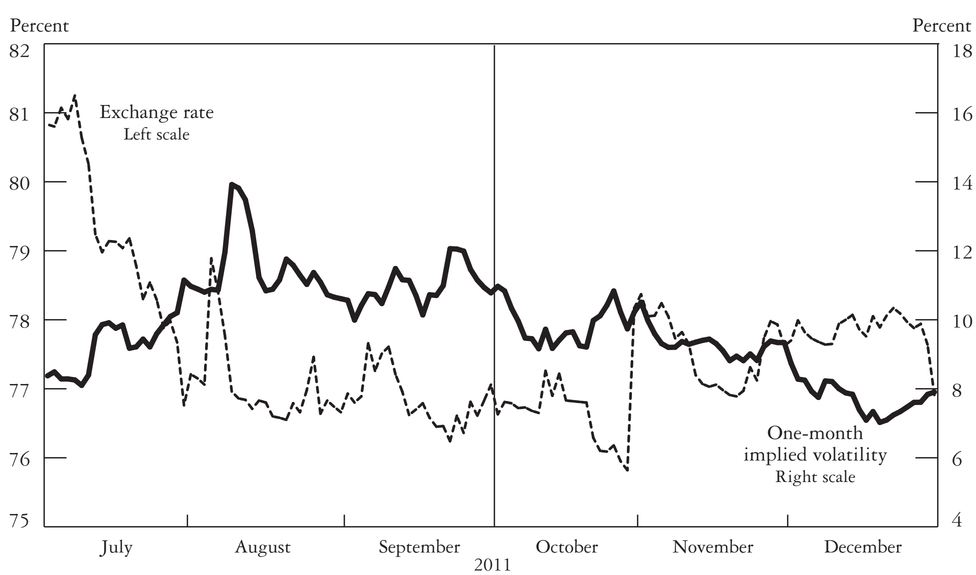
Source: Bloomberg L.P.

U.S. DOLLAR IS LITTLE CHANGED AGAINST JAPANESE YEN

During the fourth quarter, the U.S. dollar was little changed overall against the Japanese yen, depreciating approximately 0.2 percent. However, in late October, the yen's appreciation to record levels against the dollar prompted Japanese authorities to intervene in the dollar–yen currency pair as it traded intraday to a post-war record low of ¥75.35 per dollar. On October 31, Japanese officials unilaterally intervened in the currency markets by selling yen, communicating that the level of the currency did not reflect economic fundamentals. Following the intervention, the Japanese yen depreciated as much as 5.6 percent against the U.S. dollar on an intraday basis, but had partially retraced to end the quarter at ¥76.91 per dollar. According to Japan's Ministry of Finance, intervention in foreign exchange markets during the fourth quarter through December 28 totaled approximately ¥9.1 trillion. Following the intervention, measures of implied volatility in the dollar–yen currency pair declined to their lowest levels since 2007. Specifically, one-month implied volatility in the dollar–yen currency pair declined from 10.8 percent at the beginning of the quarter to 7.9 percent at the end of the quarter.

Chart 8

U.S. DOLLAR–YEN EXCHANGE RATE AND ONE-MONTH IMPLIED VOLATILITY



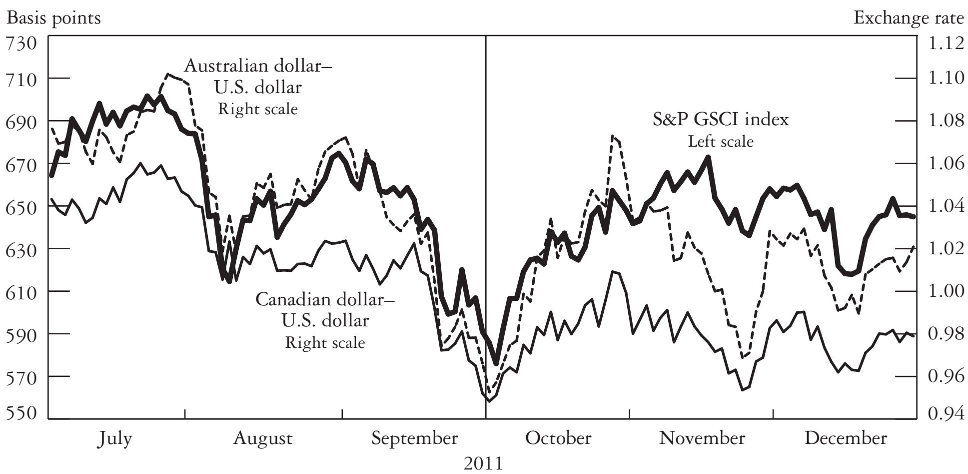
Source: Bloomberg L.P.

U.S. DOLLAR DEPRECIATES AGAINST COMMODITY-LINKED AND EMERGING-MARKET CURRENCIES

During the period, the U.S. dollar depreciated 2 to 6 percent against some commodity-linked and emerging-market currencies, including the Australian dollar, Canadian dollar, New Zealand dollar, and South Korean won, amid a reversal of the decline in risk sentiment and commodity prices witnessed at the end of the third quarter. Consistent with the reversal in negative risk sentiment, the S&P 500 and Euro STOXX 50 equity indexes increased 11.2 percent and 6.3 percent, respectively, and the VIX index of implied volatility declined 19.6 percentage points. Commodity prices increased during the quarter, as the S&P GSCI commodities index increased 9.1 percent.

Chart 9

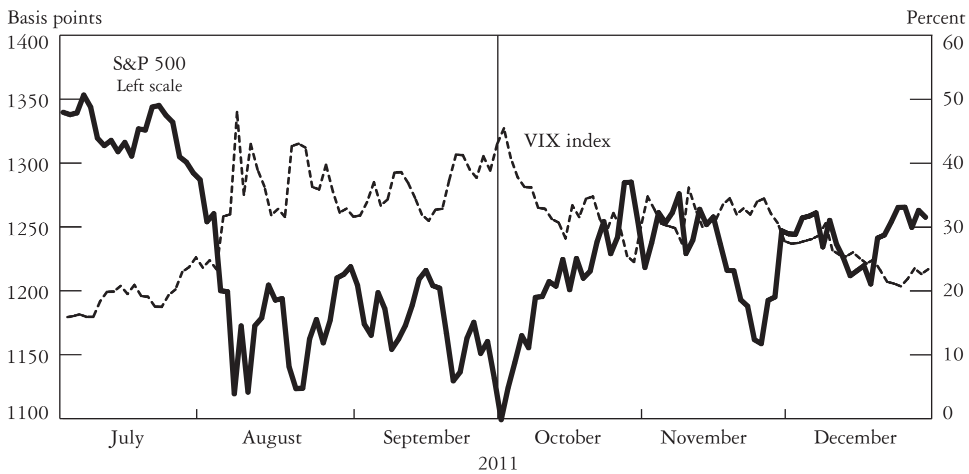
SELECTED COMMODITY-LINKED CURRENCIES AND S&P GSCI COMMODITIES INDEX



Source: Bloomberg L.P.

Chart 10

S&P 500 INDEX AND VIX INDEX



Source: Bloomberg L.P.

Note: VIX is the Chicago Board Options Exchange Market Volatility Index.

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, the value of the U.S. Treasury's Exchange Stabilization Fund foreign-currency-denominated assets totaled \$25.93 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled \$25.95 billion, also comprised of euro and yen holdings.

Dollar Liquidity Swap Arrangements with Foreign Central Banks

On November 30, 2011, the Federal Reserve, in coordination with the Bank of Canada (BoC), the Bank of England (BoE), the Bank of Japan (BoJ), the ECB, and the SNB, agreed to reduce the rate charged on the dollar liquidity swap arrangements and to extend authorization of these swap arrangements through February 1, 2013. The rate charged on the dollar liquidity swap arrangements was reduced from the U.S. dollar overnight index swap (OIS) rate plus 100 basis points to the OIS rate plus 50 basis points. In addition, as a contingency measure, these central banks agreed to establish temporary bilateral liquidity swap arrangements so that each central bank could provide liquidity, if necessary, in any of the respective currencies. As of December 31, the BoJ had \$13.99 billion outstanding, the ECB had \$85.44 billion outstanding, the SNB had \$395 million outstanding, and the BoC and BoE 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-related 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. Another portion is invested in euro-denominated repurchase agreements, under which 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 $25.20 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 decreased from $5.0 billion at the end of the third quarter to zero on December 30, 2011. This decline occurred late in the quarter as the rates offered on such investments fell below zero, leading the Federal Reserve to transfer these funds to a deposit account at one of its official counterparties.[1]

[1] Yields returned to positive levels in 2012, allowing the Federal Reserve to resume its standard operations in the reverse repo market.

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, 2011[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, 2011[a]
Federal Reserve System						
Open Market Account (SOMA)						
Euro	14,347	0	48	0	(508)	13,887
Japanese yen	12,047	0	7	0	9	12,063
Total	26,394	0	54	0	(499)	25,950

		Change in Balances by Source				
	Carrying Value, September 30, 2011[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, 2011[a]
U.S. Treasury Exchange						
Stabilization Fund (ESF)						
Euro	14,324	0	48	0	(507)	13,864
Japanese yen	12,047	0	7	0	9	12,063
Total	26,371	0	54	0	(498)	25,928

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, repayments, and warehousing.

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

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

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

Table 2

BREAKDOWN OF FOREIGN RESERVE ASSETS HELD

Carrying Value in Millions of U.S. Dollars, as of December 31, 2011

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**13,864.3**	**13,886.6**
Cash held on deposit at official institutions	9,344.9	9,367.1
Marketable securities held under repurchase agreements[b]	0.0	0.0
Marketable securities held outright	4,519.5	4,519.5
German government securities	1,884.3	1,884.3
French government securities	2,635.1	2,635.1
Yen-denominated assets	**12,063.4**	**12,063.3**
Cash held on deposit at official institutions	3,985.4	3,985.3
Marketable securities held outright	8,078.0	8,078.0
Reciprocal currency arrangements		
Euro–denominated assets		**85,436.7**
Other assets[c]		85,436.7
Japanese-yen–denominated assets		**13,991.0**
Other assets[c]		13,991.0
Swiss-franc–denominated assets		**395.0**
Other assets[c]		395.0
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 8.9 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.4 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, 2011
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank[a]	Unlimited	85,437
Swiss National Bank[a]	Unlimited	395
Bank of Japan[a]	Unlimited	13,991
Bank of Canada[a]	30,000	0
Bank of England[a]	Unlimited	0
	Unlimited	99,823
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
Total	3,000	0

[a] Temporary swap arrangement.