TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

October–December 2007

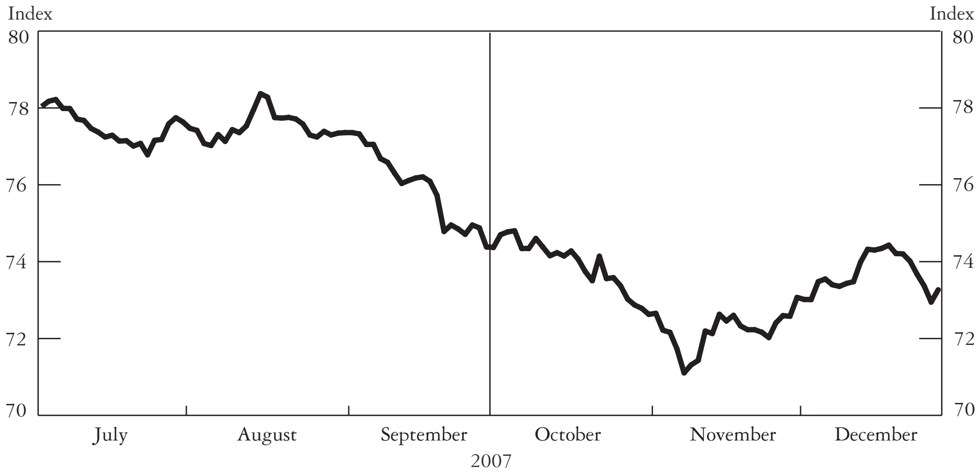
During the fourth quarter of 2007, the dollar's trade-weighted exchange value decreased 1.5 percent as measured by the Federal Reserve Board's major currencies index. The dollar depreciated 2.8 percent against the yen and 2.3 percent against the euro, reaching its weakest level on record against the euro. Through late November, the dollar fell in value against the euro and yen, driven lower by changes in relative growth expectations and interest rate differentials. During the remainder of the quarter, the dollar appreciated modestly as year-end–related position adjustments and capital flows became the dominant factors. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

In response to heightened demand for dollar funding, the Federal Reserve established temporary reciprocal currency swap facilities with the European Central Bank (ECB) and the Swiss National Bank (SNB). The ECB drew on the swap facility on two occasions, conducting term dollar funding auctions in tandem with the Federal Reserve's own term auction facility (TAF) auctions, and the SNB drew on the swap facility once in tandem with the Federal Reserve's first TAF auction.

This report, presented by William Dudley, 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 2007. James Clark was primarily responsible for preparation of the report.

Chart 1

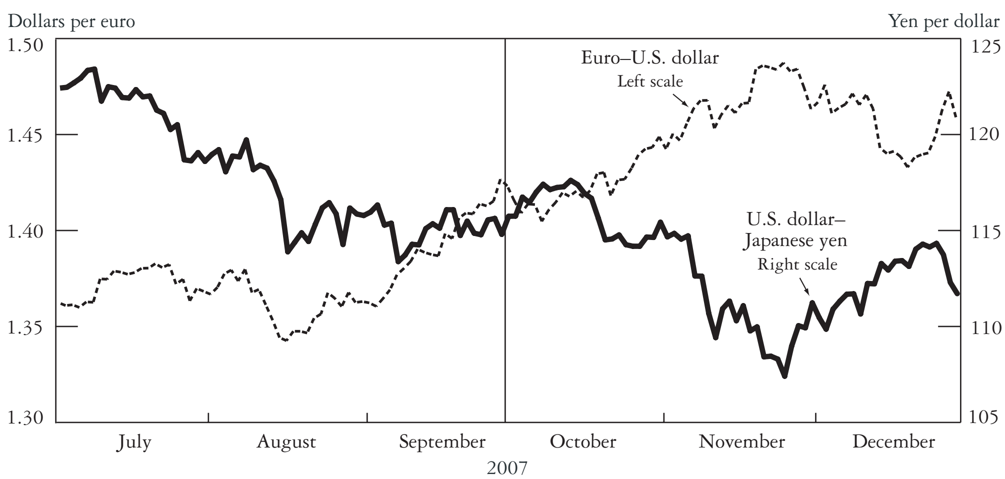
TRADE-WEIGHTED U.S. DOLLAR



Source: Board of Governors of the Federal Reserve System.

Chart 2

EURO–U.S. DOLLAR AND U.S. DOLLAR–YEN EXCHANGE RATES



Source: Bloomberg L.P.

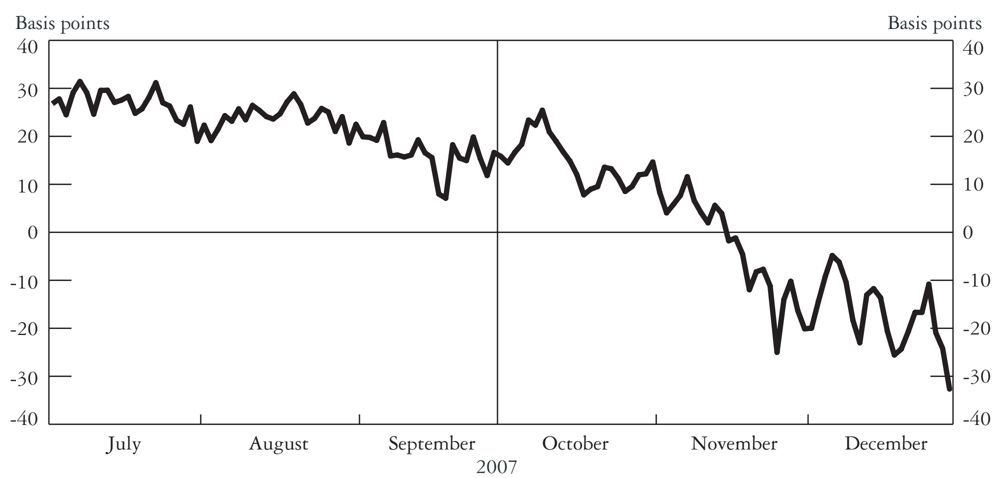
RELATIVE GROWTH AND INTEREST RATE DIFFERENTIALS DRIVE DOLLAR DEPRECIATION THROUGH LATE NOVEMBER

From the beginning of the quarter through late November, the dollar depreciated 4.1 and 5.9 percent against the euro and yen, respectively. The dollar's depreciation over this period primarily reflected a downward revision to U.S. growth expectations and associated movements in interest rate differentials.

Rating agency downgrades of subprime mortgage-backed securities and other structured credit products, together with weaker-than-expected housing data, underscored the increasingly negative impact of the housing sector's troubles on the macroeconomic outlook. In addition, bank balance sheets were under pressure from several sources, including write-downs on leveraged loans and residential mortgage positions as well as increased loan loss provisions for consumer credit. These pressures led to a tightening in credit availability that caused market participants to become more pessimistic about the U.S. economic growth outlook. In light of these developments, U.S. consumer confidence declined notably over the period, despite the release of relatively robust employment data. Over the same period, Japanese data showed only a modest softening of economic conditions, while European data continued to indicate relatively strong macroeconomic prospects.

Chart 3

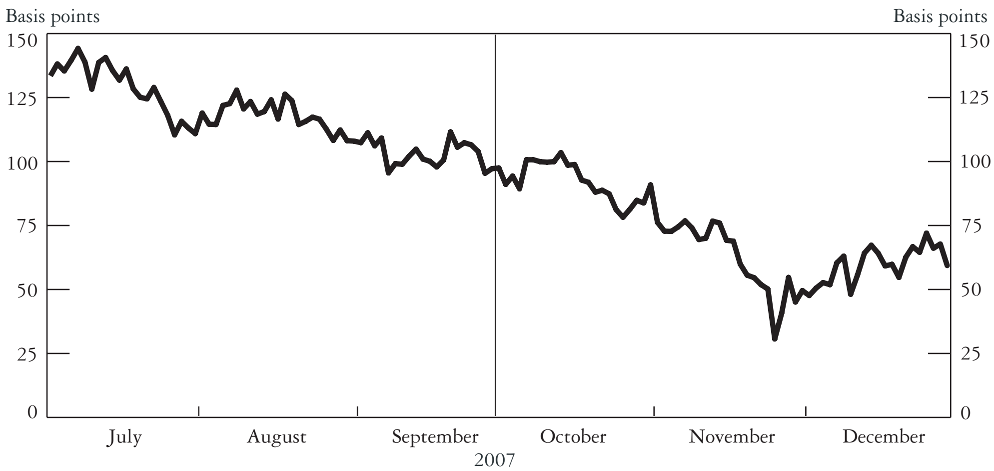
YIELD SPREAD BETWEEN TEN-YEAR U.S. AND EURO-AREA REAL RATES



Source: Barclays Capital.

Chart 4

YIELD SPREAD BETWEEN TEN-YEAR U.S. AND JAPANESE REAL RATES

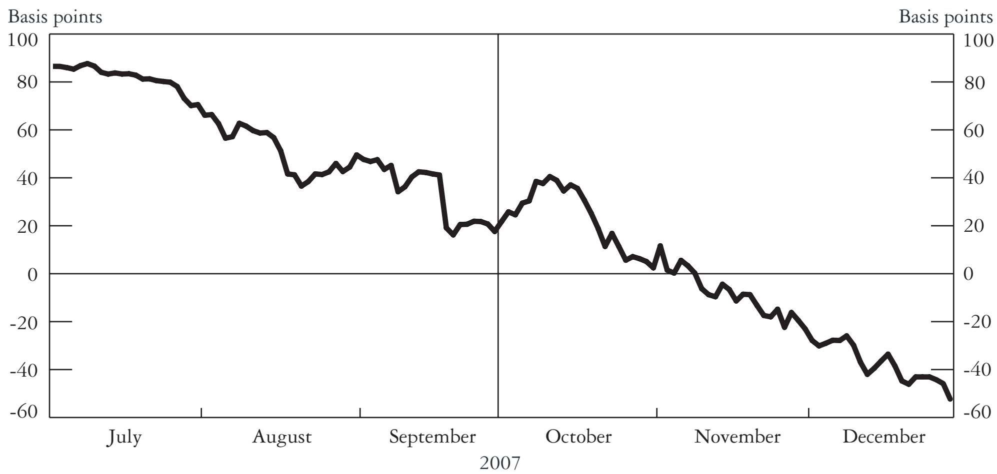


Source: Barclays Capital.

Medium-term monetary policy expectations in the United States continued to diverge from those in the euro area and Japan. Amid increased concerns about U.S. growth, expectations for additional policy rate cuts from the Federal Open Market Committee (FOMC) rose, whereas expectations for monetary policy tightening by the ECB and the Bank of Japan (BoJ) were little changed. One-year overnight index swaps (OIS), which measure the expected effective federal funds rate, declined roughly 62 basis points from the beginning of the quarter through November 22, while equivalent-maturity interest rate swaps linked to euro-area and Japanese policy rates were little changed.

Chart 5

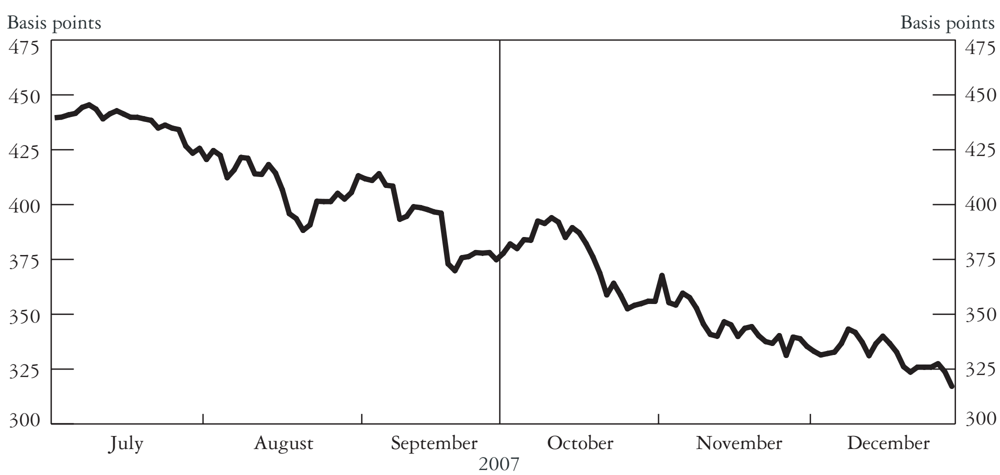
YIELD SPREAD BETWEEN ONE-YEAR U.S. AND EURO-AREA OVERNIGHT INDEX SWAP (OIS) RATES



Source: Bloomberg L.P.

Chart 6

YIELD SPREAD BETWEEN ONE-YEAR U.S. AND JAPANESE OVERNIGHT INDEX SWAP (OIS) RATES



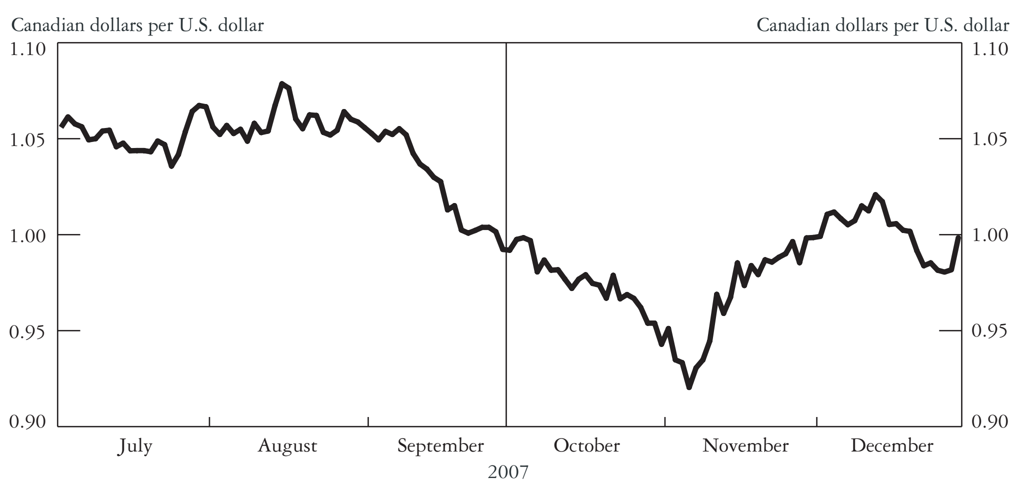
Source: Bloomberg L.P.

Also contributing to the dollar's depreciation was an increase in negative sentiment attributable to the persistence of global imbalances. In particular, market participants highlighted exchange rate policies in economies that have currencies pegged to the dollar, particularly in China and the Middle East. Many questioned the continued sustainability of these policies, given the divergence of rising domestic inflation in these economies and weaker activity and monetary policy easing in the United States.

During the first five weeks of the fourth quarter, the Canadian dollar appreciated sharply against the U.S. dollar, rising 6.6 percent to reach its strongest level against the currency in more than a century and contributing to the decline in the U.S. dollar's trade-weighted exchange value. Continued strength in the Canadian economy supported the movement of interest rate differentials in favor of the Canadian dollar, with Canadian employment growth remaining extremely robust and housing data continuing to show signs of strength. Against this strong economic backdrop, elevated commodity prices—including a rise in the price of West Texas Intermediate crude oil prices to more than 90 U.S. dollars per barrel—supported the Canadian dollar and led to a corresponding improvement in the terms of trade.

Chart 7

U.S. DOLLAR–CANADIAN DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

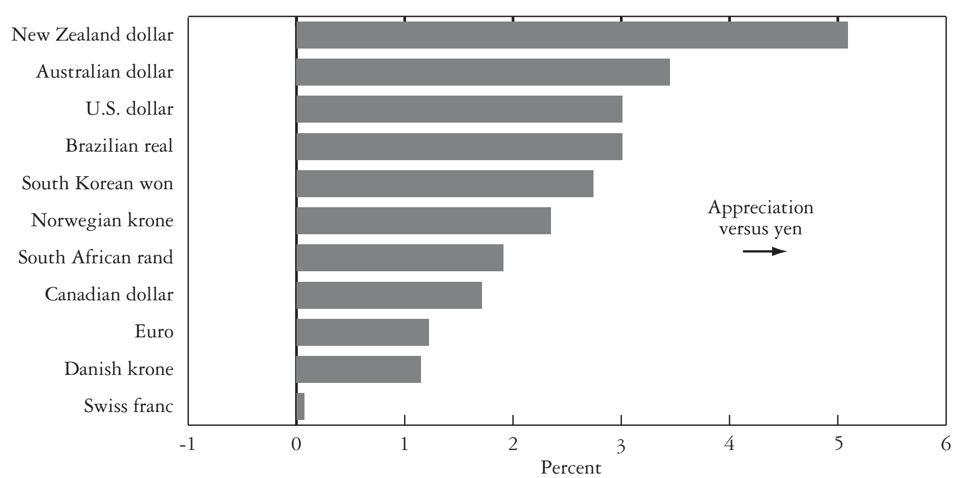
DOLLAR APPRECIATES FROM LATE NOVEMBER TO YEAR-END

Over the remainder of the quarter, the dollar appreciated against most major currencies, strengthening between 1.3 and 3.7 percent against the Canadian dollar, euro, yen, and pound sterling. The dollar's appreciation was driven largely by the rebalancing of global equity portfolios, position squaring going into year-end, and repatriation of foreign earnings by U.S. multinationals into U.S. dollars in December. In addition, following the Gulf Cooperation Council meeting on December 4, the dollar benefited from reduced speculation about the possibility of exchange rate adjustments by Middle Eastern countries that have currencies pegged to the dollar.

The Japanese yen depreciated against most major currencies over this period. Market participants largely attributed the yen's underperformance to abatement in risk aversion after speeches by Federal Reserve officials appeared to signal a more aggressive easing of U.S. monetary policy in the near future.

Chart 8

JAPANESE YEN AGAINST SELECTED CURRENCIES FROM NOVEMBER 23 TO DECEMBER 31, 2007

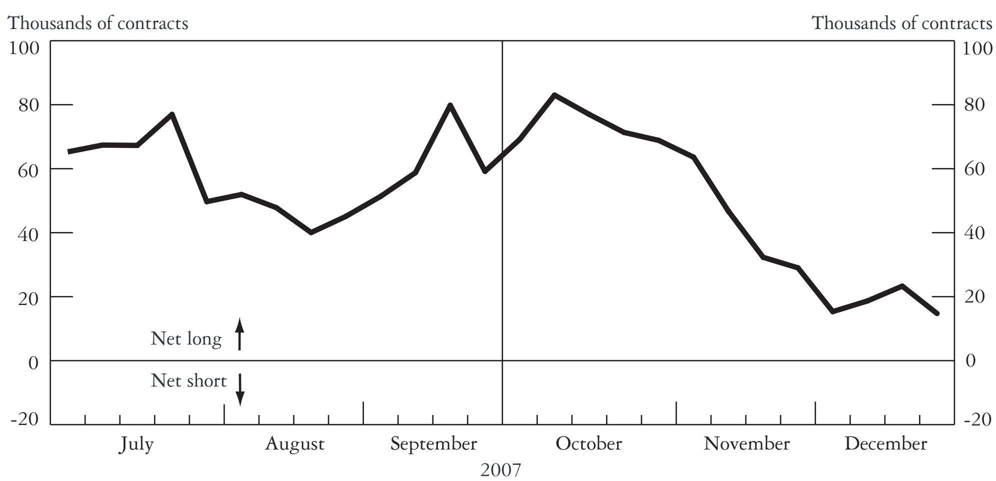


Source: Bloomberg L.P.

Also supporting the rise in the U.S. dollar's trade-weighted exchange value over the remainder of the quarter was the Canadian dollar, which depreciated to 0.9984 Canadian dollars per U.S. dollar at the end of the quarter from its high of 0.9059 Canadian dollars per U.S. dollar. Amid indications that the strength of the Canadian dollar had begun to weigh upon economic growth and commentary from the Bank of Canada suggesting the possibility of a lower overnight target rate, many observed that long Canadian dollar positions had reached extreme levels. At the beginning of this period, one-month implied volatility for the U.S. dollar–Canadian dollar currency pair reached its highest level since 1998, and risk reversal option prices indicated significant investor demand for protection against Canadian dollar depreciation. Market participants that had previously held large long Canadian dollar positions unwound a sizable portion of these positions. According to the International Monetary Market, the number of noncommercial net long positions in the Canadian dollar fell sharply.

Chart 9

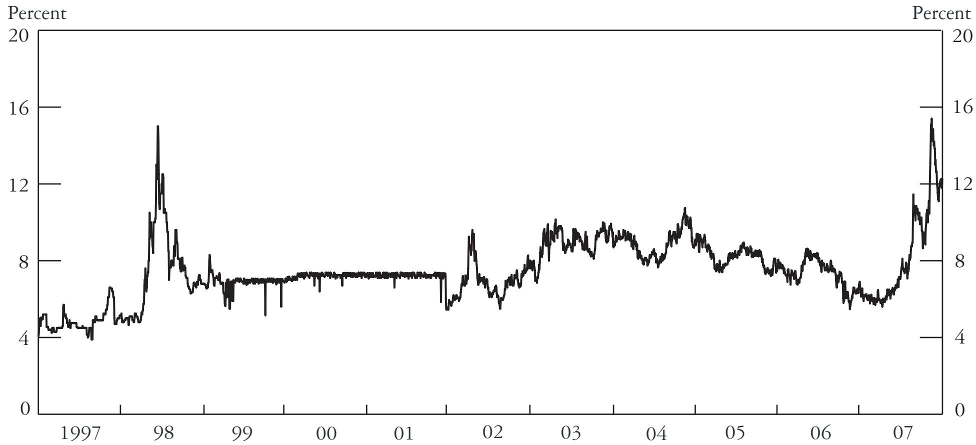
NET CANADIAN DOLLAR POSITIONS HELD BY NONCOMMERCIAL ACCOUNTS ON THE INTERNATIONAL MONETARY MARKET



Source: Bloomberg L.P.

Chart 10

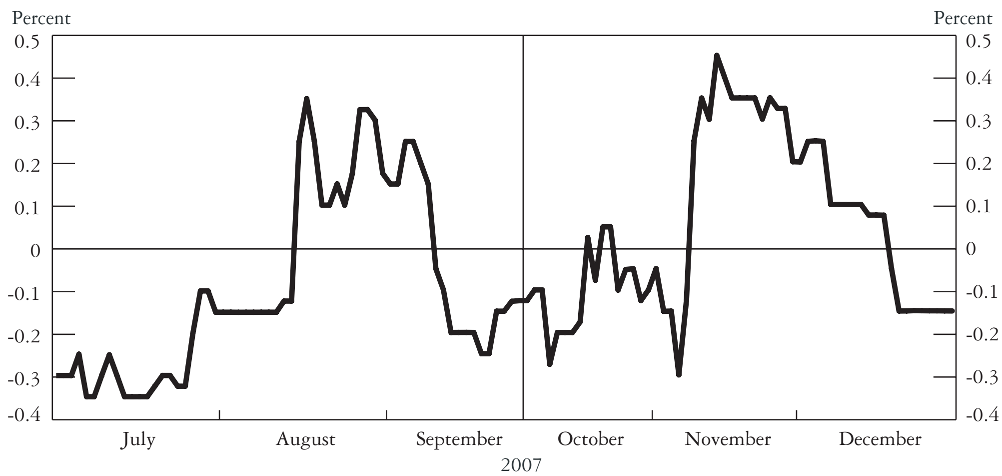
ONE-MONTH U.S. DOLLAR–CANADIAN DOLLAR IMPLIED VOLATILITY



Source: UBS Investment Bank.

Chart 11

ONE-MONTH TWENTY-FIVE-DELTA U.S. DOLLAR–CANADIAN DOLLAR RISK REVERSALS



Source: UBS Investment Bank.

Note: Missing dates have been averaged.

FOREIGN EXCHANGE SWAPS MARKET FUNCTIONING DETERIORATES AS TERM FUNDING PRESSURES RE-EMERGE

From mid-November to year-end, trading liquidity in the foreign exchange swaps market was severely impaired. The re-emergence of funding pressures in term dollar, euro, and pound sterling money markets caused by balance sheet constraints and typical year-end funding pressures made it difficult to identify the appropriate interest rates at which to price forward transactions. These factors were exacerbated by increased demand for dollar funding by offshore banks that are typically structurally short U.S. dollars and that use the foreign exchange swaps market to obtain such funding. As a result, trading volumes in the foreign exchange swaps market diminished considerably, trade sizes contracted, and bid-ask spreads on transactions became much wider than normal. Additionally, concerns about counterparty credit risk prompted some market makers to temporarily withdraw from the market. Credit tiering also became evident, with counterparties viewed as less creditworthy finding it more difficult and costly to enter into transactions than counterparties perceived to be more creditworthy. Despite the impairment to the swaps market, spot foreign exchange market liquidity for major currencies was generally healthy during the quarter.

TEMPORARY RECIPROCAL CURRENCY ARRANGEMENTS ESTABLISHED WITH OTHER CENTRAL BANKS

To facilitate the functioning of financial markets and provide liquidity in U.S. dollars abroad, the FOMC approved the establishment of temporary reciprocal currency arrangements with the ECB and SNB, which were entered into on December 12. Such temporary reciprocal currency arrangements had not been established since the terrorist attacks on September 11, 2001. The 2001 agreements were intended to facilitate the functioning of financial markets following disruptions to essential infrastructure; the recent agreements, by contrast, were intended to facilitate term funding auctions in the euro area and Switzerland that would help alleviate elevated pressures in short-term funding markets for dollars.

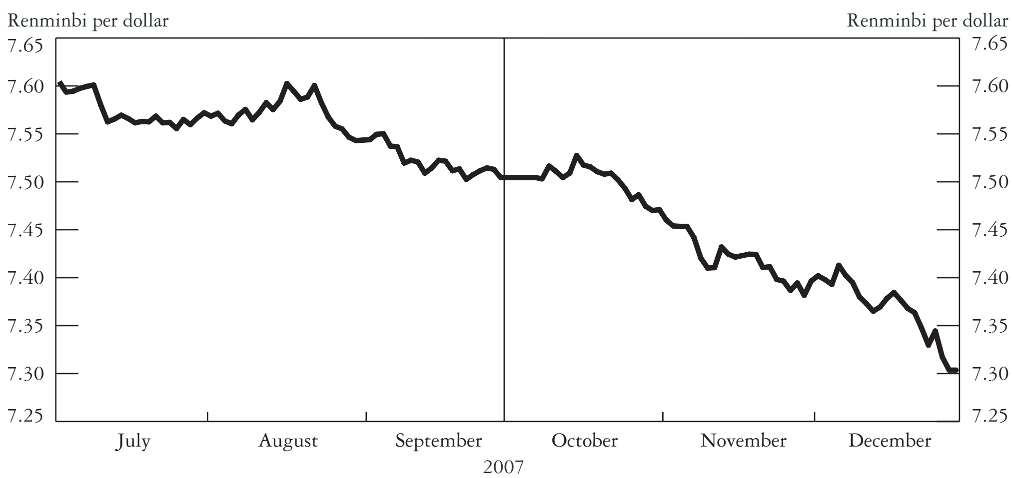
Under the terms of these agreements, the ECB and SNB were able to draw up to $20 billion and $4 billion, respectively, in exchange for local currency, for a period of up to six months. These arrangements allowed the central banks to temporarily lend—via auctions coordinated with the Federal Reserve's TAF auctions—the dollar proceeds of swaps to eligible local institutions in need of term dollar funding. On December 17 and 20, the ECB held two auctions for $10 billion at a fixed rate equal to the marginal rate of the Federal Reserve TAF auction on the same days. On December 17, the SNB held a variable rate U.S. dollar tender auction for $4 billion. As of December 31, both central banks had fully drawn down their respective temporary swap lines.

THE CHINESE RENMINBI CONTINUES TO APPRECIATE AGAINST THE DOLLAR

The daily pace of Chinese renminbi appreciation against the dollar accelerated in the fourth quarter. The renminbi appreciated 2.9 percent against the dollar, up from 1.9 percent during the third quarter. Market participants viewed the more rapid pace of renminbi appreciation as largely a policy decision made by the People's Bank of China to address inflationary pressures. At year-end, non-deliverable forward contracts indicated that market participants expected the Chinese currency to appreciate approximately 7.2 percent against the U.S. dollar in 2008.

Chart 12

U.S. DOLLAR–CHINESE RENMINBI EXCHANGE RATE



Source: Reuters.

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, yen, and Swiss franc reserve holdings totaled $47.30 billion for the Federal Reserve System Open Market Account and $22.89 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 practicable, the investments are split evenly between the System Open Market Account and the Exchange Stabilization Fund.

However, to facilitate the functioning of financial markets and provide liquidity in U.S. dollars abroad, on December 12, the FOMC authorized temporary reciprocal currency arrangements with the ECB and the SNB. Holdings related to these arrangements have been included in the Federal Reserve's System Open Market Account for the fourth quarter. Under the terms of these agreements, the ECB and SNB were able to draw up to $20 billion and $4 billion, respectively, in exchange for local currency, for a period of up to six months. As of December 31, both central banks had fully drawn down their respective temporary swap lines.

A significant portion of the U.S. monetary authorities' foreign exchange reserves is invested in European and Japanese government securities. On an outright basis, the U.S. monetary authorities hold 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 $20.7 billion, split evenly between the Federal Reserve and the Treasury. Foreign government securities held under repurchase agreements totaled $5.1 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 Dollars

	Carrying Value September 30, 2007[a]	Change in Balance by Source: Net Purchases and Sales[b]	Change in Balance by Source: Investment Earnings[c]	Change in Balance by Source: Realized Gains/Losses on Sale[d]	Change in Balance by Source: Unrealized Gains/ Losses on Foreign Currency Revaluation[e]	Carrying Value December 31, 2007[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	13,879.9	20,000	161.6	0	660.5[f]	34,702.0
Swiss franc	0.0	4,000	6.4	0	67.4[f]	4,073.8
Yen	8,264.5	0	13.5	0	241.3	8,519.4
Total	22,144.4	24,000	181.5	0	969.3	47,295.2
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	13,856.8	0	139.4	0	374.4	14,370.6
Yen	8,264.6	0	13.5	0	241.3	8,519.4
Total	22,121.4	0	152.9	0	615.7	22,890.0

[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 euro and Swiss franc holdings do not affect profit and loss because the impact is offset by the unwinding of the forward contract on the repayment date.

Table 2

BREAKDOWN OF FOREIGN RESERVE ASSETS HELD

Carrying Value in Millions of Dollars, as of December 31, 2007

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets:	**14,370.6**	**34,702.0**
Cash held on deposit at official institutions	7,156.7	7,180.7
Other assets[b]	—	20,307.5
Marketable securities held under repurchase agreements[c]	2,548.1	2,548.1
Marketable securities held outright	4,665.7	4,665.7
German government securities	2,248.8	2,248.8
French government securities	2,416.9	2,416.9
Swiss franc-denominated assets:	**—**	**4,073.8**
Other assets[b]	—	4,073.8
Yen-denominated assets:	**8,519.5**	**8,519.4**
Cash held on deposit at official institutions	2,811.0	2,810.9
Marketable securities held outright	5,708.4	5,708.4

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

[a]As of December 31, euro and yen portfolios had Macaulay durations of 9.5 months and 11.7 months, respectively, for both the ESF and SOMA portfolios.

[b]Carrying value of outstanding reciprocal currency swaps with the European Central Bank and Swiss National Bank.

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

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of Dollars

Institution	**Amount of Facility**	**Outstanding as of December 31, 2007**
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Bank of Mexico	3,000	0
European Central Bank[a]	20,000	20,000
Swiss National Bank[a]	4,000	4,000
Total	29,000	24,000
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Bank of Mexico	3,000	0
Total	3,000	0

[a]Temporary 180-day swap arrangement.

Table 4
DAILY SWAP FACILITY ACTIVITY
Billions of Dollars

Date	Drawings	Repayments	Amount Outstanding
	European Central Bank (ECB)		
December 20	10.0[a]	—	10.0
December 27	10.0[b]	—	20.0
	Swiss National Bank (SNB)		
December 20	4.0[a]	—	4.0

[a]Maturity date of January 17, 2008.
[b]Maturity date of January 31, 2008.