# TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

*July–September 2005*

During the third quarter of 2005, the dollar's trade-weighted exchange value declined 1.1 percent as measured by the Federal Reserve Board's major currencies index. The dollar appreciated 0.7 percent against the euro and 2.3 percent against the yen. The dollar's trade-weighted exchange value decreased over the period primarily because of the appreciation of the Canadian dollar, which was perceived to benefit from rising commodity prices. Despite events ranging from the recent revaluation of the Chinese renminbi to Hurricane Katrina, both actual and option-implied volatilities in the currency market were little changed over the quarter. Actual and implied currency volatility remained at historically low levels, reflecting low volatility in many asset classes. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

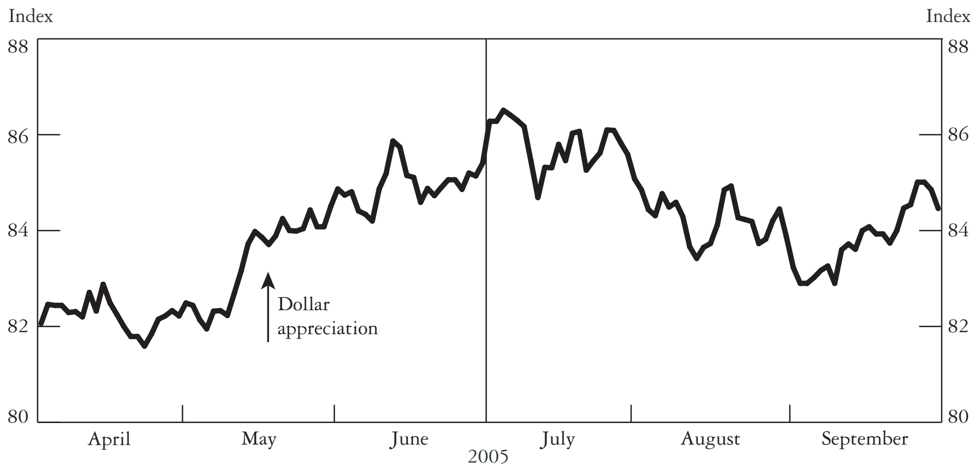
## THE DOLLAR DEPRECIATES AGAINST SOME COMMODITY-SENSITIVE CURRENCIES

During the quarter, the trade-weighted exchange value of the dollar fell as a result of the rise in oil and other commodity prices and the subsequent appreciation of the Canadian dollar. Prices of West Texas Intermediate crude oil futures rose about 17 percent over the course of the third quarter to more than $66 per barrel. Moreover, the prices of gold and other commodities also increased

*This report, presented by Dino Kos, 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 July through September 2005. Phil de Imus was primarily responsible for preparation of the report.*

*Chart 1*

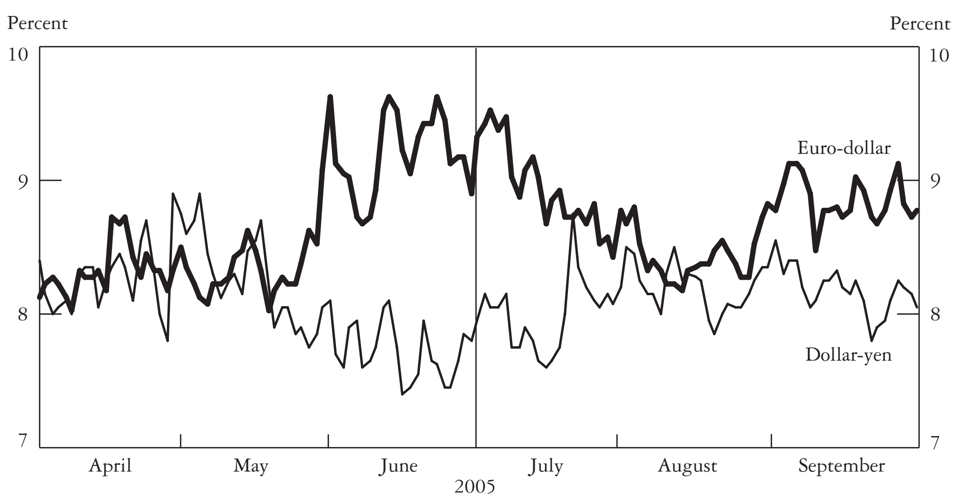
TRADE-WEIGHTED U.S. DOLLAR




Sources: Bloomberg L.P., Federal Reserve Release H.10

*Chart 2*

ONE-MONTH OPTION-IMPLIED VOLATILITY




Source: Bloomberg L.P.

notably during the period. Rising commodity prices contributed to the appreciation of some commodity-sensitive currencies such as the Canadian dollar and the South African rand. The Canadian dollar appreciated 5.3 percent against the U.S. dollar. Market participants indicated that rising crude oil and natural gas prices were significant factors behind investor interest in purchasing Canadian dollars.

## THE DOLLAR APPRECIATES MODESTLY AGAINST THE EURO

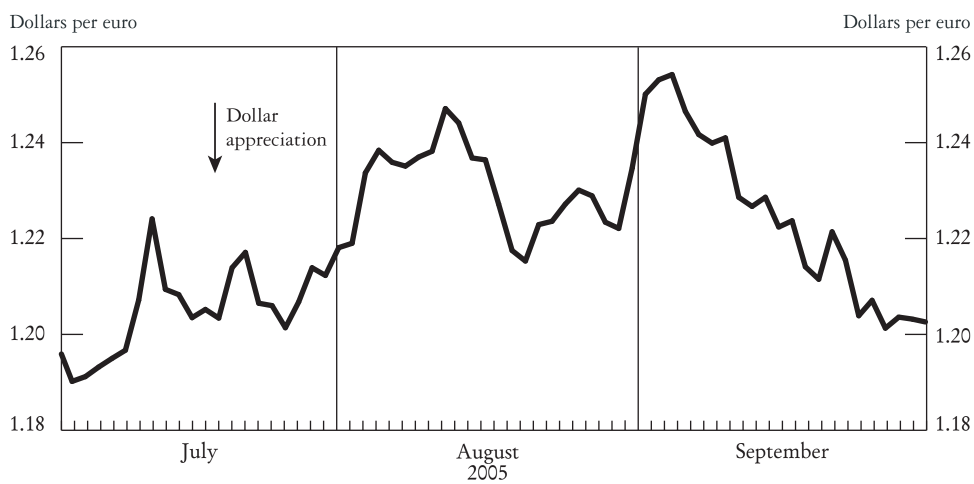
The euro-dollar currency pair traded within a range of about $1.1900 to $1.2550 per euro in the third quarter. This fairly narrow trading range contributed to low levels in both actual and implied volatility of the euro-dollar currency pair over the period. The dollar ended the quarter moderately stronger against the euro, at $1.2026 per euro. The dollar's depreciation against the euro in late August partly reflected increased uncertainty about the U.S. economic outlook in the aftermath of Hurricanes Katrina and Rita and the potential impact of rising energy prices. Investors also questioned whether or not the Federal Open Market Committee (FOMC) would continue to raise the target federal funds rate after 25 basis point increases at both the June 30 and August 9 meetings. These concerns prompted U.S. interest rates to decline and interest rate differentials between the United States and the euro area to narrow markedly following Hurricane Katrina's landfall on August 29. Narrower interest rate differentials, in turn, put downward pressure on the dollar in early September.

Uncertainties about monetary policy and growth proved to be short-lived. Many economists' estimates indicated that any negative impact that Hurricane Katrina might have on growth would likely be confined to the third and fourth quarters of 2005, with the potential for a subsequent increase in growth in 2006 as the rebuilding effort in the U.S. Gulf Coast got under way. Analysts also reported that commentary from Federal Reserve officials was consistent with expectations for further increases in the federal funds target rate by the FOMC. Despite some lingering uncertainties about the likely impact of elevated energy prices and the extent of economic disruption in the U.S. Gulf Coast region, concern about the hurricane's effect on the broader economy appeared to ease over the month of September.

As expectations for further policy rate increases by the FOMC rose, interest rate differentials between the United States and the euro area widened again in September. The dollar recovered from its recent lows and finished the quarter 0.7 percent stronger against the euro. Expectations for further policy rate moves were confirmed near quarter-end when the FOMC raised the target federal funds rate by another 25 basis points to 3.75 percent at the September 20 meeting. Some market participants reported that the close results of the German parliamentary elections on September 18 also pressured the euro lower as investors speculated that the absence of a majority governing party in Germany could stall structural reform in Europe's largest economy.

*Chart 3*

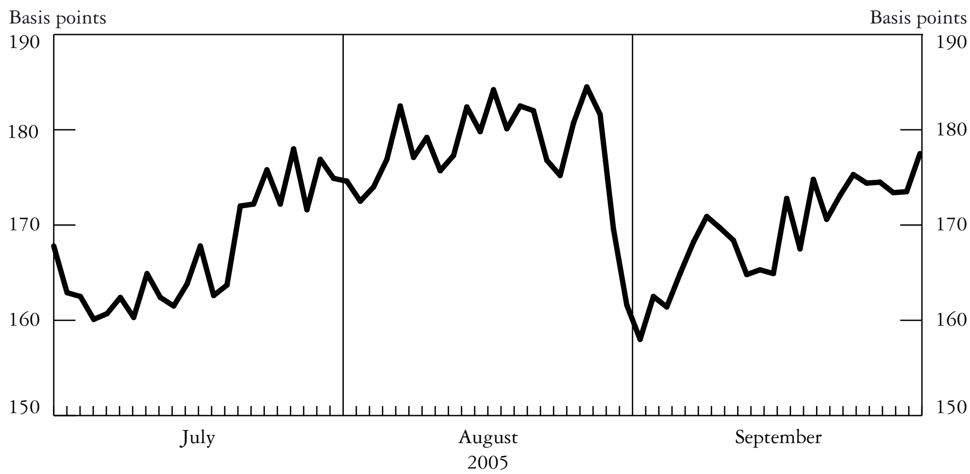
EURO AGAINST U.S. DOLLAR




Source: Bloomberg L.P.

*Chart 4*

SPREAD OF U.S. TWO-YEAR TREASURY NOTE YIELD OVER GERMAN TWO-YEAR SOVEREIGN NOTE YIELD




Source: Bloomberg L.P.

## THE DOLLAR APPRECIATES NOTABLY AGAINST THE YEN

The dollar appreciated against the yen over the quarter to reach ¥113.51 per dollar, its strongest level against the Japanese currency since May 2004. The dollar depreciated against the yen for a brief period following the July 21 official Chinese announcement of the revaluation of the renminbi and the move to a managed float exchange rate regime with reference to a basket of currencies. The dollar again depreciated against the yen in the immediate aftermath of Hurricane Katrina, but that weakness was also short-lived. Over the final few weeks of the quarter, the dollar strengthened steadily against the yen.

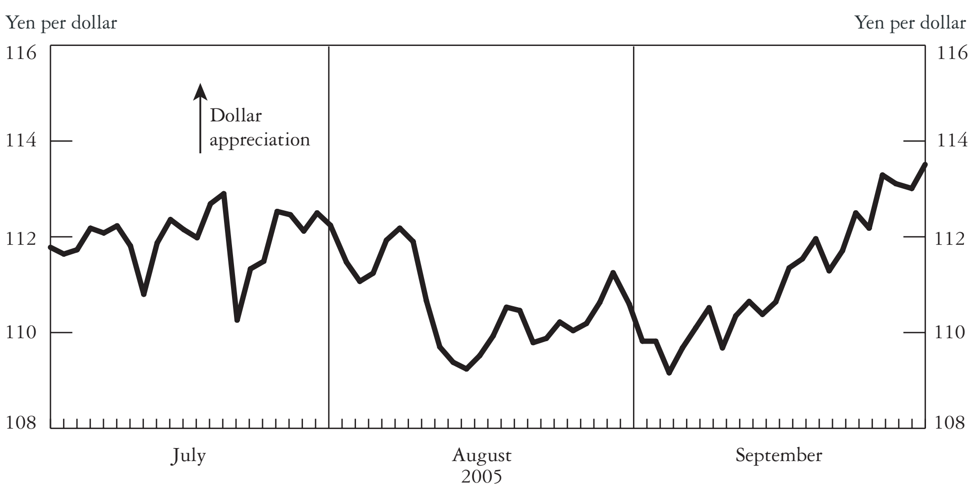
The revaluation of the Chinese renminbi contributed to a temporary increase in actual volatility for the dollar-yen currency pair. There was also a modest increase in implied volatility for the dollar-yen currency pair following the renminbi revaluation, but the increase proved temporary as most market participants reported that additional revaluation of the renminbi was unlikely in the near term.

Market participants expressed some surprise that the dollar appreciated against the yen despite the improvement in investor sentiment toward Japan following the landslide victory by Prime Minister Koizumi's Liberal Democratic Party in Japan's lower-house elections on September 11. Many analysts believed that the victory would lay the groundwork for passage of postal and other structural reforms in Japan. In addition, several Japanese economic data releases were reported at or above market participants' expectations. Nonetheless, data from the Japanese Ministry of Finance indicated that Japanese investors were predominantly net purchasers of foreign securities during the third quarter, a pattern that likely pressured the yen lower.

Market participants indicated that signs of improved economic growth in Japan had contributed to increased speculation that the Bank of Japan (BoJ) would move away from its quantitative easing policy some time in 2006. Still, some market analysts suggested that the BoJ was unlikely to move away from its zero-nominal-interest-rate policy until inflation was zero or higher for a sustained period of time. Although these factors contributed to increases in implied rates on euro-yen futures and two-year Japanese government note yields, widening interest rate differentials between the United States and Japan continued to favor the dollar over the yen. While the two-year Japanese note yield reached a fourteen-month high of 0.24 percent at the end of September, the yield on the two-year Treasury note rose even more on a relative basis. As expectations for additional increases in the target federal funds rate by the FOMC solidified in late September, the spread of two-year Treasury notes over comparable Japanese notes increased to 393 basis points, 38 basis points wider than in early July.

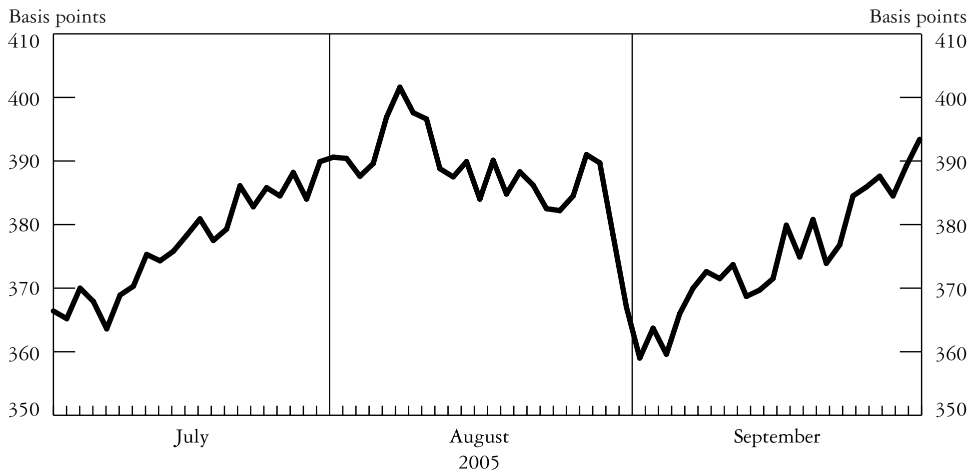
*Chart 5*

YEN AGAINST U.S. DOLLAR




Source: Bloomberg L.P.

*Chart 6*
SPREAD OF U.S. TWO-YEAR TREASURY NOTE YIELD OVER JAPANESE TWO-YEAR NOTE YIELD




Source: Bloomberg, L.P.

## 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 $19.4 billion for the Federal Reserve System Open Market Account and $19.4 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 practical, 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 in European and Japanese government securities. On an outright basis, the U.S. monetary authorities hold German, French, and Japanese government securities. During the quarter, pursuant to a periodic review of the long-term asset allocation for the yen portfolios, the U.S. monetary authorities stopped their prior practice of reinvesting the proceeds of maturing bill investments in bills, and began redirecting those funds into investments in Japanese government bonds. 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 September 30, direct holdings of foreign government securities totaled $18.4 billion, split evenly between the Federal Reserve and the Treasury. Foreign government securities held under repurchase agreements totaled $3.9 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 Dollars

| | Carrying Value June 30, 2005[a] | Change in Balance by Source: Net Purchases and Sales[b] | Investment Earnings[c] | Realized Profit/Loss on Sale[d] | Unrealized Profit/Loss on Foreign Currency Revaluation[e] | Carrying Value September 30, 2005[a] |
|---|---|---|---|---|---|---|
| **Federal Reserve System Open Market Account (SOMA)** | | | | | | |
| Euro | 11,009.4 | 0 | 69.2 | 0 | (37.1) | 11,041.5 |
| Yen | 8,516.6 | 0 | 0.3 | 0 | (178.9) | 8,338.0 |
| Total | 19,526.0 | 0 | 69.5 | 0 | (216.0) | 19,379.5 |
| **U.S. Treasury Exchange Stabilization Fund (ESF)** | | | | | | |
| Euro | 10,992.9 | 0 | 68.8 | 0 | (37.0) | 11,024.7 |
| Yen | 8,516.7 | 0 | 0.3 | 0 | (178.9) | 8,338.1 |
| Total | 19,509.6 | 0 | 69.1 | 0 | (215.9) | 19,362.8 |

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 daily foreign currency purchases from cash collected on maturities and coupons. In case of intervention or other official activity, amounts would be reflected and details footnoted.

[c] Investment earnings include accrued interest and amortization.

[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 Dollars, as of September 30, 2005

| | U.S. Treasury Exchange Stabilization Fund (ESF) | Federal Reserve System Open Market Account (SOMA) |
|---|---|---|
| **Euro-denominated assets[a]:** | **11,024.7** | **11,041.5** |
| Cash held on deposit at official institutions | 5,475.4 | 5,493.8 |
| Marketable securities held under repurchase agreements[b] | 1,952.0 | 1,952.0 |
| Marketable securities held outright | 3,597.3 | 3,595.7 |
| German government securities | 1,680.5 | 1,678.9 |
| French government securities | 1,916.8 | 1,916.8 |
| **Yen-denominated assets[a]:** | **8,338.1** | **8,338.0** |
| Cash held on deposit at official institutions | 2,719.5 | 2,719.4 |
| Marketable securities held outright | 5,618.6 | 5,618.6 |

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

[a] As of September 30, euro and yen portfolios had Macaulay durations of 10.0 months and 7.0 months, respectively. These numbers were revised February 13, 2006.

[b] 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 September 30, 2005 |
|---|---|---|
| | **Federal Reserve System Open Market Account (SOMA)** | |
| Bank of Canada | 2,000 | 0 |
| Bank of Mexico | 3,000 | 0 |
| Total | 5,000 | 0 |
| | **U.S. Treasury Exchange Stabilization Fund (ESF)** | |
| Bank of Mexico | 3,000 | 0 |
| Total | 3,000 | 0 |

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