TREASURY AND FEDERAL RESERVE
FOREIGN EXCHANGE OPERATIONS

April–June 2003

During the second quarter of 2003, the dollar’s exchange value declined 4.5 percent on a trade-weighted basis as measured by the Federal Reserve’s major currencies index. The dollar depreciated 5.1 percent against the euro and 8.2 percent against the Canadian dollar but appreciated 1.5 against the yen. For most of the quarter, the dollar was pressured against a wide range of currencies as U.S. interest rates continued to decline and as market participants focused on the U.S. current account deficit. The U.S. monetary authorities did not intervene in the foreign exchange market during the quarter.

DOLLAR DEPRECIATES STEADILY FROM APRIL THROUGH MID-MAY

Through most of the quarter, the dollar continued to depreciate, in line with the trend established late last year. With the winding down of the military conflict in Iraq in April, market attention shifted to the outlook for U.S. monetary policy and economic growth. Although some better-than-expected first-quarter corporate earnings announcements released during April supported U.S. equity markets, the dollar declined modestly amid concern that U.S. economic growth following the war with Iraq might remain subdued. Chairman Greenspan’s congressional testimony on April 30 also reinforced market perceptions of a muted growth outlook.

This report, presented by Dino Koi, 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 April to June 2003. Laura Lipscomb was primarily responsible for preparation of the report.
Chart 1
U.S. DOLLAR AGAINST THE EURO AND YEN

Source: Bloomberg L.P.

Chart 2
SPREAD BETWEEN TEN- AND TWO-YEAR U.S. TREASURIES

Source: Bloomberg L.P.
Although monetary policy was not altered at the May 6 Federal Open Market Committee (FOMC) meeting, market participants focused on the accompanying statement, which noted that while the risks to the outlook for growth remained balanced, the risk of a decline in inflation exceeded the risk of a pickup in inflation. The statement was interpreted as indicating that interest rates would remain low for an extended period of time. Yields fell across the two-to-ten-year Treasury coupon curve, and the yield curve flattened significantly. Lower-than-expected inflation data released on May 16 led Treasury yields to decline further, breaching multidecade lows. Against a backdrop of a widening current account deficit, some analysts noted that lower yields in the United States might make the dollar susceptible to further depreciation.

The low yields on U.S. fixed income reportedly led to a shift in portfolio allocations to assets denominated in currencies considered relatively “safe” but offering higher yields, which contributed to support for the euro, in particular, as well as the British pound. In addition, the low interest rates encouraged use of the dollar to fund investments in higher yielding currencies, supporting the Canadian, Australian, and New Zealand dollars, as well the Swedish krona and Norwegian krone. The search for yield also benefited some emerging market currencies such as the Brazilian real, which appreciated 12.6 percent against the dollar between the end of March and the middle of May.

During the period, market participants also focused on statements from U.S. officials regarding policy on the dollar. Through the first half of May, market participants discussed several comments from the Secretary of the Treasury Snow regarding the dollar. Late on May 6, the Secretary of the

*Chart 3*

**U.S. DOLLAR AGAINST OTHER CURRENCIES**

Source: Bloomberg L.P.
Treasury said, “the dollar’s value should be set in an open competitive market with a minimum of interventions.” These and subsequent comments by the Secretary were interpreted as indicating U.S. official support for market determination of exchange rate values, increasing market participants’ comfort with establishing short-dollar positions against other currencies. On Monday, May 12, the dollar depreciated broadly as market participants focused on a comment by the Secretary over the weekend, in which he noted that a weaker dollar supported U.S. exports. Short-dollar positions held by noncommercial accounts on the Chicago Mercantile Futures Exchange as reported weekly by the Commodity Futures Trading Commission peaked for the quarter at 143,577 contracts on May 13.

**Chart 4**

*NET U.S. DOLLAR POSITIONS AMONG NONCOMMERCIAL ACCOUNTS ON THE CHICAGO MERCANTILE FUTURES EXCHANGE*

Although the dollar weakened against many other currencies this period, the dollar was relatively well supported against the yen through most of April. During April, the yen declined against a wide range of currencies, falling 0.7 percent and 3.1 percent against the dollar and the euro, respectively, as Japanese government bond (JGB) yields continued to decline to new historic lows. In the beginning of May, however, the acceleration of broad-based dollar depreciation led to an appreciation of the yen against the dollar. This yen appreciation was limited, in part, by market speculation that Japanese authorities were intervening to weaken the yen, which was confirmed at the end of the month.
DOLLAR STABILIZES FROM MID-MAY TO THE END OF JUNE
After declining steadily earlier in the quarter, the dollar traded in a narrower range on a trade-weighted basis later in the period, as a variety of factors led market participants to question the pace of the dollar-weakening trend. In particular, market participants focused on the global official response to the dollar’s depreciation, including potential policy changes by monetary authorities.

Ahead of the Group of Eight meeting that began on May 31, some market participants reduced short positions in the dollar because of the perceived possibility that official comments or a joint official statement after the meeting might address the dollar’s depreciation. Exchange rate policy was not part of the official communiqué, though President Bush did reiterate his support for a strong dollar following the conclusion of the meeting. The president stated, “Our policy is a strong dollar.”

Market participants also focused on the Japanese monetary authority’s response to the dollar’s weakness against the yen. Market participants noted that the foreign exchange item of ¥3.98 trillion in the Bank of Japan’s report, Sources of Changes in Current Account Balances, released on May 30, likely reflected Ministry of Finance intervention and that the amount was significantly higher than in previous months. The rise in Japanese sovereign yields toward the end of the quarter, in conjunction with increased foreign purchases of Japanese equities, led to further support for the yen. For example, the yield on the ten-year JGB #249 soared from an historic low of 0.42 percent on June 12 to 0.82 percent by the end of the quarter. However, yen appreciation occurred primarily
against currencies other than the dollar due to expectations for continued intervention, particularly in the dollar-yen currency pair. At the end of June, the Ministry of Finance reported sales of ¥628.9 billion from May 29 through June 26.

Market participants increasingly discussed the tightening of financial conditions in countries where local currencies had appreciated significantly against the dollar. Amid signs of official concern about slow economic growth and global deflationary pressures, this discussion contributed to expectations of easier monetary policy in some countries, reducing the attractiveness of holding long positions in those currencies. Some traders reduced short-dollar positions against currencies of countries that were expected to lower interest rates. However, despite a modest reduction in these positions, higher yielding currencies remained near multiyear strong levels against the dollar.

During the month of June, the Reserve Bank of New Zealand, the Swedish Riksbank, and the Bank of Norway lowered interest rates, with accompanying statements interpreted as indicating further scope for easing. Market participants also began to discuss the possibility of easing by the Bank of Canada amid signs of slowing inflation and domestic growth. During this period, the implied yield on the September bankers' acceptances futures contract fell 50 basis points to 3.00 percent compared with the policy rate of 3.25 percent. On June 5, the European Central Bank announced a 50-basis-point decrease in its minimum-refinancing rate to 2.0 percent, and subsequent comments from monetary authorities led to increased expectations for further easing.

_Chart 6_

**TWO-YEAR GOVERNMENT DEBT YIELDS AND POLICY RATES**

Source: Bloomberg L.P.
Toward the end of the quarter, uncertainty over the outcome of the June 25 FOMC meeting and the potential response in currency markets reportedly led many market participants to pare short-dollar positions against other currencies. Leading up to the meeting, market participants increasingly expected monetary easing. Data releases, including the April consumer price index, which showed a month-over-month decline of 0.3 percent, contributed to this view. Comments from Chairman Greenspan on June 3 at the International Monetary Conference were interpreted as indicating a cautiously optimistic outlook on growth. However, his statement that a “much wider firebreak” was needed against deflation led to increased market discussion that the June FOMC meeting could result in a 50-basis-point rate decrease, as well as possibly provide an indication that alternative monetary easing measures could be used. As this discussion intensified, Treasury yields continued to decline, and on June 13, the two- and ten-year Treasury notes reached multidecade lows of 1.08 percent and 3.11 percent, respectively.

Leading up to the meeting, market participants were mixed as to the likely impact on the dollar of further easing. U.S. equity market gains were cited as an indication of expectations for improved growth in the United States, with the Standard & Poor’s 500 and Nasdaq indexes 15.9 percent and 19.7 percent stronger, respectively, from the beginning of the quarter through June 24. Some suggested that attention was shifting from relative interest rate differentials to relative growth expectations and that this was benefiting the dollar. On June 25, the FOMC announced a 25-basis-point decrease in the target federal funds rate, less than the 50-basis-point decrease
for which many market participants had been positioned. The language in the accompanying statement was interpreted as indicating less caution in the outlook for deflation than had been anticipated. From June 24 to the end of the quarter, two- and ten-year Treasury yields rose 21 basis points and 26 basis points, respectively.

Following the meeting, market participants remained uncertain over the outlook for the dollar, and positioning in many currency pairs had reportedly moved to more neutral levels by the end of the quarter. The dollar gained 0.3 percent on a trade-weighted basis following the June FOMC meeting to the end of the quarter. Some market participants suggested that they were waiting for further indications of U.S. economic activity consistent with rising U.S. yields and equity markets, which could further support the dollar.

**Chart 8**

**GLOBAL BENCHMARK EQUITY INDEXES**

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**CURRENCY MARKET VOLATILITY REMAINS LOW**

Over the quarter, option-implied volatility in currency markets remained relatively low and within historical norms. One-month option-implied volatility in the euro-dollar currency pair remained within a range of 8.85 percent to 11.48 percent. Implied volatility rose only slightly when dollar depreciation against the euro accelerated in May and later declined as dollar depreciation moderated later in the quarter. One-month option implied volatility in the dollar-yen currency pair was also relatively contained, trading within a 7.8250 percent to 10.65 percent range and ending the quarter in the lower end of the range.
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 $17.8 billion for the Federal Reserve’s System Open Market Account and $17.8 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.

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 June 30, direct holdings of foreign government securities totaled $17 billion, split evenly between the Federal Reserve and the Treasury. Foreign government securities held under repurchase agreements totaled $3.7 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  
Thousands of Dollars

<table>
<thead>
<tr>
<th>Changes in Balances by Source</th>
<th>Carrying Value March 31, 2003a</th>
<th>Net Purchases and Salesb</th>
<th>Investment Earningsc</th>
<th>Realized Profit/Loss on Saled</th>
<th>Unrealized Profit/Loss on Foreign Carrying Valueref</th>
<th>Carrying Value June 30, 2003a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal Reserve System</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Open Market Account (SOMA)</td>
<td></td>
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</tr>
<tr>
<td>Euro</td>
<td>9,385,222</td>
<td>0</td>
<td>66,914</td>
<td>0</td>
<td>518,446</td>
<td>9,970,582</td>
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<tr>
<td>Yen</td>
<td>7,998,565</td>
<td>0</td>
<td>129</td>
<td>0</td>
<td>(120,109)</td>
<td>7,878,585</td>
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<tr>
<td>Total</td>
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<td>67,043</td>
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<td>398,337</td>
<td>17,849,167</td>
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<tr>
<td><strong>U.S. Treasury Exchange</strong></td>
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<td></td>
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<tr>
<td>Stabilization Fund (ESF)</td>
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<td>Euro</td>
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<td>66,489</td>
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<tr>
<td>Yen</td>
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<td>(120,111)</td>
<td>7,878,618</td>
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<tr>
<td>Total</td>
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<td>66,618</td>
<td>0</td>
<td>397,712</td>
<td>17,846,870</td>
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*Carrying value of the reserve asset position includes interest accrued on foreign currency, which is based on “day of” accrual method.

bNet 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.

cInvestment earnings include accrued interest and amortization.

dGains and losses on sales are calculated using average cost.

eReserve asset balances are revalued daily at the noon buying rates.
### Federal Reserve System Open Market Account

**Reciprocal Currency Arrangements**

Thousands of Dollars

<table>
<thead>
<tr>
<th>Institution</th>
<th>Amount of Facility</th>
<th>Outstanding as of June 30, 2003</th>
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</thead>
<tbody>
<tr>
<td>Bank of Canada</td>
<td>2,000,000</td>
<td>0</td>
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<tr>
<td>Bank of Mexico</td>
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<tr>
<td>Total</td>
<td>5,000,000</td>
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</table>

### U.S. Treasury Exchange Stabilization Fund

**Reciprocal Currency Arrangement**

Thousands of Dollars

<table>
<thead>
<tr>
<th>Institution</th>
<th>Amount of Facility</th>
<th>Outstanding as of June 30, 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Mexico</td>
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</tr>
<tr>
<td>Total</td>
<td>3,000,000</td>
<td>0</td>
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