FEDERAL RESERVE

The Fed's Foray Into Forex

Although very uncommon now, the Fed used to intervene regularly in foreign exchange markets

Very quarter, the New York Fed sends a report to Congress detailing its foreign exchange, or forex, operations on behalf of the Federal Reserve System and the Treasury. For most of the last two decades, these reports have stated something along the lines of the most recent one: "U.S. monetary authorities did not intervene in the foreign exchange markets."

This hands-off approach hasn't always been the norm, though. From the 1960s to the mid-1990s, the Fed and the Treasury intervened in currency markets on numerous occasions. The reasons why are rooted in the international monetary system established after World War II.

Confronting the Impossible

In July 1944, a month after D-Day, 44 countries met at Bretton Woods, N.H., to discuss how to rebuild the world's financial system after the war. Their goal was to build stability and cooperation that would avoid another global economic depression. The United States agreed to peg the dollar to gold at \$35 an ounce, and other member countries would fix their currencies to the dollar.

Throughout the 1950s, dollars flowed from the United States to Europe to help finance reconstruction and get Europe's economies back online. This spelled trouble for the Bretton Woods system, however. By the early 1960s, there were more dollars abroad than the United States could credibly commit to convert to gold.

The excess dollars overseas posed a dilemma for U.S. monetary authorities — or more accurately, a trilemma. The trilemma or "impossible trinity" of international finance states that a country can maintain only two of the following three conditions at the same time: a fixed exchange rate, free capital movement, and an independent monetary policy. The United States had committed to the first two, which in theory should have left domestic monetary concerns subordinate to international ones.

To stem the bleeding of U.S. gold reserves, the Federal Reserve needed to tighten monetary policy to strengthen the dollar. But in 1960, the country was also in the midst of a recession, which called for easing policy. The Fed initially prioritized international concerns and raised interest rates, but along with the Treasury, it began exploring a tool that might allow the United States to get the best of all worlds, maintaining a fixed exchange rate while still pursuing independent monetary policy. That tool was intervention in foreign exchange markets.

The Forex Awakens

The Fed had delved briefly into forex operations early in its history. Benjamin Strong, the influential first leader of the New York Fed, established accounts with the Bank of England and other European central banks that he used to help those countries resume the gold standard after World War I. In the early 1930s, after Strong had died, Carter Glass, one of the architects of the Federal Reserve Act, denounced those actions. He argued the New York Fed had overstepped its bounds by acting for the system in international affairs, and the 1933 Glass-Steagall Act contained a provision that any such activities required the consent of the Fed's Board of Governors.

The Gold Reserve Act signed the following year created a replacement for the Fed's foreign exchange operations in the Exchange Stabilization Fund (ESF). The ESF, which was controlled by the Treasury, was authorized to buy and sell gold or foreign currencies to maintain the dollar's peg to gold. The ESF, then, was the natural candidate to intervene in support of the dollar's peg to gold during the Bretton Woods era. There was just one problem. After World War II, the U.S. government reallocated 90 percent of the ESF's initial funding to help establish the International Monetary Fund (IMF). Barring an additional appropriation of funds from Congress, the ESF now had little capacity to intervene in exchange markets.

Rather than go to Congress, however, the Treasury turned to the Fed. In 1961, the Federal Open Market Committee (FOMC) considered a proposal from the Treasury to establish "swap" arrangements with foreign central banks to purchase foreign currency, similar to the arrangement Strong had used decades earlier. The Fed could then use that foreign currency to purchase dollars, raising the dollar's price and stemming gold outflows. Since foreign central banks ultimately wanted to hold fewer dollars, the Fed would agree to reverse the swap at a later date at the same exchange rate. This guarantee protected foreign central banks from the risk that the dollar would depreciate in the meantime, reducing their incentive to exchange those dollars for gold, which would have exacerbated the U.S. gold reserve problem. The Treasury also asked the Fed to help supply the ESF with dollars to continue its operations by temporarily exchanging them for foreign currencies held by the ESF — a process called "warehousing."

The debate on the FOMC over the proposal was contentious. First, it wasn't clear that the Fed had the legal



authority to buy and sell foreign exchange. The Federal Reserve Act contained some language authorizing foreign transactions, and Board Counsel Howard Hackley interpreted this as legal authority to engage in the swaps. Warehousing was slightly more complicated. The Fed is not allowed to purchase U.S. bonds from the Treasury directly; it has to purchase them from the market (which is why such actions are called "open market operations"). But Hackley argued that the Treasury was part of the open market for foreign exchange, since that exchange was not directly issued by the U.S. government. This, he argued, allowed the Fed to engage in warehousing for the ESF.

The FOMC settled the legal question fairly quickly, but some members of the committee had still another objection. The Fed was considering undertaking these operations at the request of the Treasury, and warehousing in particular was seen by some as providing funding for Treasury operations. The Fed had declared its policy independence from the Treasury just a decade earlier, and some members of the FOMC saw these operations as a threat to that newly won independence. By creating the ESF, Congress had given the Treasury the primary responsibility for exchange markets. If the Fed agreed to participate, some on the FOMC reasoned that it would be doing so as a junior partner. Ultimately, a majority of the committee voted on Jan. 23, 1962, to proceed with the operations.

Over roughly the next decade, the Fed engaged in a number of swap operations to support the dollar's peg to gold. All of these operations were "sterilized," meaning that if the Fed purchased foreign exchange, it would sell an equivalent amount of dollar-denominated securities so that the monetary base remained the same. Unsterilized purchases would have expanded the monetary base, producing an expansionary monetary policy effect, and the Fed wanted to keep its domestic monetary policy and forex operations separate.

In their 2015 book *Strained Relations*, chronicling the Fed's foreign exchange operations, Michael Bordo of Rutgers University, Owen Humpage of the Cleveland Fed, and the late Anna Schwartz argued that these operations provided a temporary solution to the gold reserve problem but "did not address the system's deep-seated weaknesses." Ultimately, President Richard Nixon suspended the dollar's gold convertibility in 1971, and the Bretton Woods system of fixed exchange rates collapsed in March 1973. The Fed's swap lines, however, remained.

Intervening in a Floating Exchange World

The end of Bretton Woods offered a different solution to the trilemma for U.S. monetary authorities. With the dollar no longer fixed to gold, the Fed could now pursue independent domestic monetary policy with free capital flows. But many officials had concerns about letting the dollar float freely.

"Many policymakers at the time, like Fed Chairman Arthur Burns, had grown up under the gold standard," says Humpage. "They were worried that trading among countries wouldn't work, or would be greatly affected, if we had floating exchange rates."

Initially, global officials thought that Bretton Woods (or something like it) would be reinstated. But it soon became clear that floating exchange rates were here to stay. The dollar began depreciating soon after the adoption of floating rates, and the Fed believed that intervention was necessary to correct these "disorderly conditions" in exchange rate markets. After a brief pause, the Fed and the Treasury began intervening in exchange markets again in 1973 to support the falling dollar.

The Fed's tools for these interventions were still the same. It used swap lines to borrow foreign currency from other central banks to buy dollars. But it was not immediately clear how effective these tools would be under the new regime. During Bretton Woods, the Fed's primary goal was to reduce pressure on U.S. gold reserves. Providing foreign central banks with protection by agreeing to buy back dollars at a fixed rate through the swap lines helped accomplish that goal. Now the Fed was primarily trying to influence the value of the dollar in the market.

Unsterilized intervention would have had a direct impact on interest rates and the value of the dollar, the same effect as domestic open market operations undertaken by the Fed. But as it did in the 1960s, the Fed continued to sterilize its foreign exchange operations. Theoretically, sterilized operations could indirectly affect exchange rates in a number of ways. First, they could communicate to the market policymakers' views on the dollar's value, helping to coordinate market expectations. Second, sterilized interventions would alter the composition of the assets held by the public. If investors see dollar and foreign securities as imperfect substitutes, they may choose to rebalance their portfolio in response to an intervention, which would shift exchange rates in the direction desired by monetary officials. Third, forex interventions could



signal the future direction of monetary policy, prompting a response from the market.

In practice, economists have found mixed evidence for the efficacy of sterilized interventions. One problem with the signaling or coordination explanation was that the Fed's interventions at the time were not announced beforehand, which would hamper any signal the Fed might want to send markets. Regarding the portfolio balance explanation, the size of the operation necessary to meaningfully shift portfolios is unclear. Today, most economists agree it would take a very large operation to affect exchange rates through this channel, and the size of the Fed's operations in the 1970s were limited. Moreover, because the Fed's operations were conducted through swap lines, they were only temporary. At some point, the Fed would have to reverse the swaps, undoing any changes to the market's portfolio.

"As the 1970s went on, the dollar kept depreciating," says Humpage. "It didn't seem like the interventions had much of an effect. You can't say they had no effect. They did seem to moderate dollar movements sometimes. But it was very hit or miss."

Off Again, On Again

Soon after the Reagan administration came into office in 1981, the Treasury announced it was taking a "minimalist" approach to intervention. Newly appointed Undersecretary of the Treasury for Monetary Affairs Beryl Sprinkel argued that the dollar's weakness was primarily due to rising inflation, and intervening in exchange markets only "treated the symptoms" not the cause. Sprinkel also believed that exchange markets had improved over a decade of experience with floating rates and that regular interventions by monetary authorities only contributed to disarray.

Not everyone agreed. As U.S. interest rates soared in the early 1980s to combat inflation and the dollar strengthened, foreign central banks began asking the United States to intervene again. In a June 1982 meeting of the Group of 7, U.S. officials agreed to participate in a study of exchange rate interventions.

"It was the first systematic research effort looking at the effects of foreign exchange market intervention," says Edwin Truman, a senior fellow at the Peterson Institute for International Economics. Truman served as the director of the Division of International Finance at the Fed's Board of Governors from 1977-1998 and participated in the G7 work group on exchange rate intervention. "Prior to that, there was only a small amount of academic literature on this topic, partly because the data were not generally available."

The group released its report (dubbed the Jurgensen Report, after the head of the work group, Philippe Jurgensen) in 1983. It found that sterilized interventions had much smaller effects on exchange rates than unsterilized interventions. Moreover, the effects of sterilized interventions were largely short-term.

"The people who were inclined to think that interventions had no effect had to concede there could be some marginal benefits," says Truman. "And the people who thought that foreign exchange market intervention was quite effective were, I think, somewhat discouraged by the results. Either that or they ignored them."

The latter response seems to have been most common at the time. Under Reagan's second administration in 1985, new Secretary of the Treasury James Baker put an end to the minimalist approach. The United States along with France, West Germany, Japan, and the United Kingdom pledged to intervene to bring the value of the dollar down (in what became known as the Plaza Accord), and the Treasury and the Fed resumed intervention operations.

The Turning Point

On "Black Monday," Oct. 19, 1987, the U.S. stock market suffered its largest ever one-day loss in percentage terms. The Fed responded immediately, issuing a statement the following morning that it was ready to serve as a source of liquidity for the financial system. It loaned millions of dollars to banks through open market operations and the discount window. These actions lowered interest rates, but they also depreciated the dollar.

Earlier that same year, the countries involved in the Plaza Accord along with Canada met to discuss new developments in the dollar. The coordinated forex interventions by these countries seemed to have worked: The dollar had depreciated. In fact, they now worried the depreciation had gone too far. The countries met in February 1987 and agreed to intervene to stem the

dollar's decline. In line with this agreement, the Treasury and Fed conducted sterilized interventions to support the dollar, which involved purchasing dollars using foreign exchange.

After the crash of October 1987, however, this intervention ran counter to the Fed's crisis response. On one hand, the Fed was supplying dollar liquidity to the financial system, and on the other, it was purchasing dollars in an effort to appreciate the dollar. Cleveland Fed President Lee Hoskins and his successor, Jerry Jordan, were some of the most vocal early critics of these actions on the FOMC, arguing that the Fed was sending confusing signals and undermining its credibility, which it was still trying to build up after the Great Inflation.

"The foreign exchange operations were sterilized and shouldn't have had any effect on monetary policy," says Humpage. "But Hoskins and others were concerned that the market just didn't get this and it would start to question what the Fed was doing. Does it care about the dollar or about the rate of inflation? How much is it willing to give up on the rate of inflation to stabilize the dollar?"

In the early 1990s, Richmond Fed President Al Broaddus and director of research Marvin Goodfriend resurrected another argument against the interventions. As some FOMC members had argued in the 1960s, Broaddus and Goodfriend contended that undertaking these operations at the behest of the Treasury jeopardized the Fed's monetary policy independence. This argument came into sharp focus in 1994-1995 when the Fed agreed to help finance a Treasury loan to Mexico through warehousing after Congress declined to approve a bailout package. (See "The Fed's 'Tequila Crisis,'" *Econ Focus*, First Quarter 2017.)

After 1995, the Fed stopped intervening in exchange markets almost entirely. By the turn of the century, intervention operations were largely shelved by central banks in developed economies. But why? Did the arguments made by Hoskins, Jordan, Broaddus, and Goodfriend about a conflict between monetary policy and intervention win the day? Or did the Jurgensen Report and the studies that followed eventually change policymakers' minds about the effectiveness of intervention?

Fed Chairman Alan Greenspan alluded to both factors in a 1999 speech. "Empirical research into the effectiveness

of sterilized intervention in industrial country currencies has found that such operations have at best only small and temporary effects on exchange rates," he said. "A more recent strand of research into this topic claims that intervention operations can be effective when they signal future monetary policy operations... The problem with this view is that it means that sterilized intervention is not an independent tool that can be used to influence exchange rates. It needs a supporting monetary policy stance to be effective."

Another factor may have also played a role. In a 2008 article by Christopher Neely of the St. Louis Fed surveying central bankers in 23 different countries about exchange market intervention, some respondents agreed that intervention could distract policymakers from more necessary changes. U.S. monetary policymakers experienced that during the Bretton Woods system and during the Great Inflation of the 1970s. Intervention was sometimes effective at treating the symptoms of monetary problems but never the root cause.

The Modern Era

Whatever the reason for scaling back intervention, the proof, as they say, is in the pudding. Since 1995, the Fed has conducted just three interventions: in 1998, to strengthen the Japanese yen during the Asian financial crisis; in 2000, to support the euro following its introduction; and in 2011, to stem the yen's appreciation in the wake of the Tohoku earthquake and tsunami. It also reopened swap lines with European central banks to provide liquidity during the global financial crisis of 2007-2008.

The Fed still maintains assets denominated in foreign currencies and the tools to intervene in forex markets to counter "disorderly market conditions," as stated on the New York Fed's website. But the operations of the past two decades have been undertaken to provide support for foreign currencies or to supply dollar liquidity to other central banks rather than to influence the dollar per se. Moreover, the conditions that justify forex operations seem to crop up less frequently now. Either that, or the bar for intervention may be higher.

"The longer you go without using a tool," says Truman, "the less likely you are to dig it out of the toolbox." ${\bf EF}$

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