

Federal Reserve Bank of Cleveland

# Money, Manufacturing, and the Strong Dollar

Owen F. Humpage

An inflow of foreign savings helped finance an investment boom in the United States between 1995 and 2000. Despite a slowdown in U.S. economic activity over the past three quarters, international investors still view the United States as a relatively safe, promising place for their savings. They continue to purchase U.S. financial instruments. The substantial dollar appreciation that has accompanied this financial inflow, however, has put domestic firms that export or that compete directly with imports at a competitive disadvantage. Recently, some observers, including the National Association of Manufacturers, have suggested that the dollar is “overvalued” and Federal Reserve should ease monetary policy further to correct the situation.

This *Economic Commentary* argues that monetary policy cannot alter the international competitiveness of U.S. firms by manipulating exchange rates. Whatever we might gain in terms of an initial nominal depreciation, higher inflation would eventually erode, and any temporary advantage to trade would come at the expense of investment. Moreover, official currency transactions that do not affect the money supply—the so-called *sterilized* interventions that were prevalent in the late 1980s and early 1990s—have little effect on exchange rates. At best, the central bank can influence firms’ competitiveness only by keeping inflation stable and low.

## ■ Exchange Rates, Real or Nominal?

To understand these arguments, one must first recognize the difference between nominal exchange rates—those published in the *Wall Street Journal*—and real exchange rates, a concept that economists construct. The overall international competitiveness of U.S. manufactured goods depends not on the behavior of nominal exchange rates, but on movements in nominal exchange rates relative to prices. Real exchange rates offer such a comparison and, therefore, provide a better gauge of international competitiveness.

The Board of Governors realizes the importance of this distinction and constructs both a Nominal Dollar Exchange Rate Index and a Real Dollar Exchange Rate Index for a broad sample of U.S. trading partners.<sup>1</sup> Although both indexes make comparisons with the same set of countries, their movements differ substantially. Since the breakdown of the Bretton Woods fixed exchange rate system in 1973, the Nominal Dollar Index has steadily appreciated about 400 percent, but the Real Dollar Index has demonstrated sustained appreciations and depreciations with no obvious overall trend (see figures 1 and 2).

The real exchange rate offers more information about the relative performance of U.S. exports and imports than the nominal exchange rate. The nominal index tracks changes in the dollar’s average exchange value relative to our 26 most important trading partners, including the euro area. The real index adjusts the nominal index for inflation at home and

**U.S. firms are facing tough international competition, and the U.S. trade deficit has grown to a level that some find alarming. Why doesn’t the United States respond by easing monetary policy to lower the dollar’s exchange rate and reduce the price of U.S. goods in foreign markets? This *Commentary* argues that monetary policy is incapable of improving the competitive position of U.S. manufacturing through exchange rate manipulation. The temporary gains monetary easing might achieve through a nominal dollar depreciation would be offset by higher inflation and decreased foreign investment.**

abroad. Basically, it constructs a ratio with the U.S. Consumer Price Index in the numerator and a trade-weighted average of foreign consumer price indexes in the denominator, and multiplies this ratio by the nominal index. The Real Dollar Index will appreciate if the nominal exchange rate appreciates and U.S. and foreign prices stay constant; if inflation in the United States exceeds inflation abroad and the nominal exchange rate stays constant; or if some combination of these two events occurs. Even if the United States returned to a system of fixed nominal exchange rates, the real exchange rate would continue to fluctuate, and U.S. producers of traded goods would still experience intensified competition whenever inflation here exceeded inflation abroad.

## ■ Overvalued?

Many of those who presently feel the competitive pinch assert that the dollar has appreciated too much; it is *overvalued*. This claim requires some standard. Generally, those who contend the dollar is overvalued believe that nominal dollar exchange rates naturally move up and down to offset differences between U.S. and foreign inflation rates. Such nominal exchange rate movements would also result in a constant real exchange rate, an index value of 100 in figure 2. By this metric, the dollar is currently about 10 percent overvalued. The implication of this claim seems straightforward: The market has failed to keep the dollar at its correct exchange value, warranting a policy response.

Whether or not nominal exchange rates eventually move in response to international inflation differentials is a topic of continued economic research and disagreement, but two aspects of the controversy seem to be settled: Deviations from this metric can persist for many years, if not decades, and such deviations are fully consistent with a well functioning foreign-exchange market. They do not call for a corrective policy response. The United States has recently offered a more attractive investment climate than many other countries and has attracted a net inflow of foreign savings. Under these circumstances, the dollar should appreciate on both a nominal and real basis.

## ■ Savings, Investment, and the Dollar

Overvalued or not, the dollar has appreciated 33 percent in real terms since 1995, putting domestic manufacturers at a competitive disadvantage. The inflow of foreign savings that contributed to the dollar's appreciation, however, has helped to finance an investment boom in the United States.<sup>2</sup> In light of this correspondence, attempts to benefit trade must hurt investment.

In the absence of an inflow of foreign saving, gross domestic investment in the United States must necessarily equal gross domestic savings, which currently amount to 18.3 percent of GDP (see figure 3). Because of substantial inflows of foreign savings, however, gross domestic investment has exceeded gross domestic savings since 1991 and currently stands at 22 percent of GDP. Since 1995, this inflow has financed purchases of new capital, much of it equipment and

software.<sup>3</sup> The acquisition of capital has improved our nation's capacity for long-term growth and our prospects for a higher standard of living.

The inflow of foreign savings causes a dollar appreciation because foreigners must first obtain dollars before they can acquire financial securities in the United States. As the demand for dollars increases relative to the supply, the dollar appreciates. Because the inflow of foreign savings has no direct offsetting effects on domestic or foreign inflation rates, the dollar appreciates on both a nominal and real basis.

A real dollar appreciation raises the foreign-currency price of our exports and lowers the dollar price of imports, causing a deterioration in our trade balance. The trade deficit will expand until it exactly equals the net inflow of foreign savings. In the absence of any measurement errors, the distance between gross domestic investment and savings in figure 3 will exactly match the trade deficit in figure 4.<sup>4</sup> The savings inflow and the trade deficit are mirror images of each other.

Those who want the Fed to depreciate the dollar by pumping more money into the economy ignore the beneficial effects of the financial inflows associated with our trade deficit. These inflows allow more investment than would otherwise occur. Any policy that succeeds in making U.S. manufacturing more competitive and reducing the trade deficit must also trim the inflow of foreign savings and lower the level of gross domestic investment.

## ■ Monetary Policy

A more basic problem confronts monetary policy than the zero-sum nature of any policy response: At best, monetary easing offers manufacturers only a short-term palliative against a real dollar appreciation.

If the Federal Reserve undertook a permanent monetary easing, the dollar would immediately depreciate in foreign exchange markets. Foreign exchange traders would quickly incorporate the monetary policy change into their exchange rate quotations. More dollars trading against a fixed amount of foreign currency must lower the dollar's price. After some time, however, the monetary easing would translate into higher prices in the United States. This would not occur immediately, because contracts and the potential ire of customers prevent U.S. producers from quickly raising prices.

Ultimately, however, the domestic prices of goods and services will adjust. If, in the long run, nominal exchange rates adjust to offset differences between U.S. and foreign inflation rates, as many interventionists imply, the overall rise in domestic prices will fully equal the dollar's nominal exchange rate depreciation.

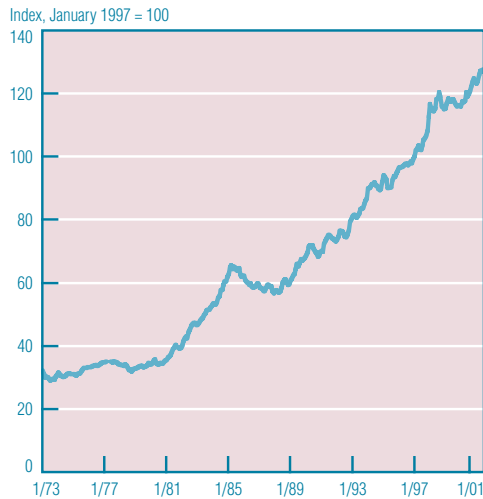
The immediate nominal dollar depreciation and the eventual price increase would result in only a temporary improvement in the competitive positions of U.S. manufacturers. The dollar's real exchange value will initially depreciate as the nominal exchange rate responds to the monetary easing, but the ensuing inflation will eventually reverse this depreciation and return the real exchange rate to its initial level. The cost of the temporary gain in our competitive position would be a permanent hike in the inflation rate.

## ■ Sterilized Intervention

Since the breakdown of the Bretton Woods fixed-exchange-rate system, the United States has occasionally undertaken sterilized interventions.<sup>5</sup> These are purchases or sales of foreign exchange that do not affect the U.S. money supply and, therefore, do not interfere with the Federal Reserve's domestic policy objectives. To promote a dollar depreciation through a sterilized intervention, the United States would buy euros and Japanese yen for dollars, but then sell Treasury securities through open-market operations to reacquire the dollars. The net effect would be a decrease in the amount of euros and yen in the market and an increase in the amount of publicly held Treasury securities. Although such a transaction leaves the U.S. money stock unaltered, economists initially offered some reasons to believe that this type of intervention might be successful.

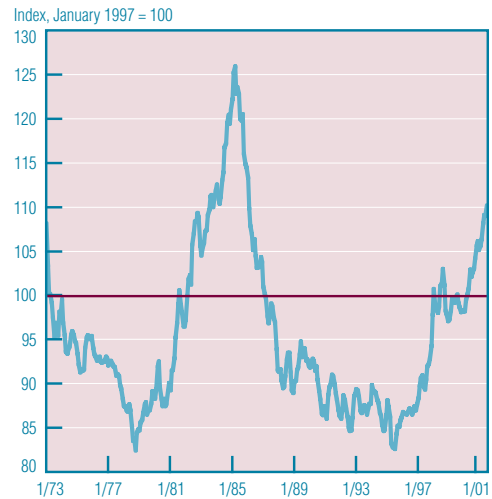
Subsequent empirical studies failed to find much of an effect. My own work, for example, found that less than half the interventions between 1985 and 1997 were successful by any reasonable criterion.<sup>6</sup> At best, the successful ones were only able to slow an appreciation or depreciation of the dollar; they did not reverse the direction of the dollar's movement. This suggests that sterilized interventions cannot improve manufacturers' competitive positions. I also found that successful interventions were concentrated in periods of extreme market uncertainty about monetary policy, such as after the 1987 stock market crash.

**FIGURE 1 NOMINAL DOLLAR EXCHANGE RATE INDEX**



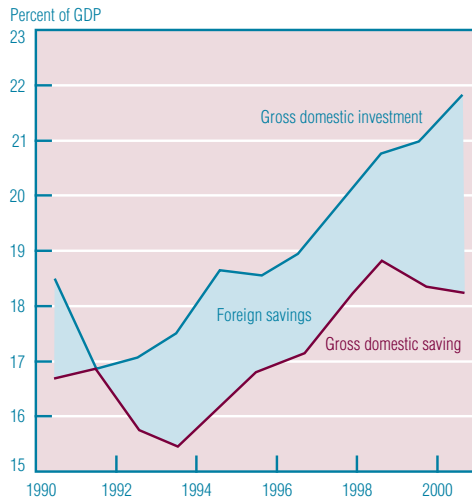
SOURCE: Board of Governors of the Federal Reserve System.

**FIGURE 2 REAL DOLLAR EXCHANGE RATE INDEX**



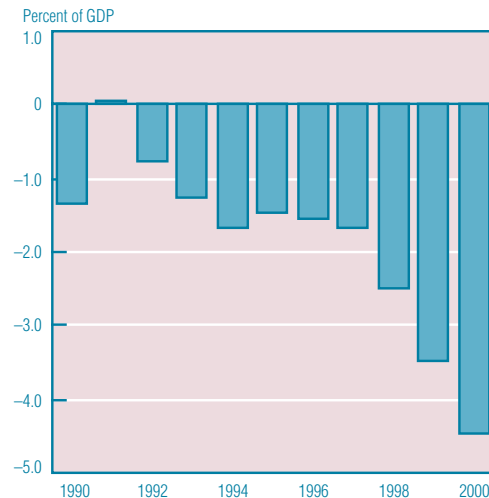
SOURCE: Board of Governors of the Federal Reserve System.

**FIGURE 3 SAVINGS AND INVESTMENT**



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

**FIGURE 4 TRADE BALANCE**



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

Consequently, such interventions are not likely to be effective under less extreme market circumstances.

**Price Stability**

Monetary policy is incapable of improving the competitive position of U.S. manufacturing through exchange rate manipulation. Whatever temporary gains a monetary easing might achieve through a nominal dollar depreciation, higher inflation would eventually erode. Moreover, any temporary reduction in the trade deficit that might ensue from

the monetary easing would also result in a smaller net inflow of foreign savings. Some sectors might temporarily gain a trading advantage, but others would find it more difficult or expensive to finance investments.

At best, monetary policy can contribute to the competitive position of U.S. manufacturing firms by maintaining price stability. Inflation—even at fairly low levels—imposes real economic costs on society. It acts like a tax, distorts relative price signals, and causes people to use

scarce resources to protect wealth rather than expand output. Inflation creates uncertainties that cloud the investment horizon, and it adds to volatility in foreign exchange markets. Inflation dulls firms' competitive edge.

## ■ Footnotes

1. The Board constructs three multi-lateral exchange rate indexes, each on a nominal and real basis. The indexes differ with respect to the countries they include. We use their nominal and real *Broad Dollar Indexes*, the most comprehensive that they offer. For a detailed description of the Board's exchange rate indexes, see Michael P. Leahy, "New Summary Measures of the Foreign Exchange Value of the Dollar," *Federal Reserve Bulletin* (October 1998), pp. 811–18.

2. See Owen F. Humpage, "International Financial Flows and the Current Business Expansion," Federal Reserve Bank of Cleveland, *Policy Discussion Paper* no. 2, April 2001.

3. See Owen F. Humpage (footnote 2) and Michael R. Pakko, "The U.S. Trade Deficit and the 'New Economy,'" Federal Reserve Bank of St. Louis, *Economic Review*, vol. 81, no. 5 (September/December 1999), pp. 11–20.

4. For an explanation of why the trade deficit and the net inflow of foreign savings must equal, see Owen F. Humpage (footnote 2). The data in figures 3 and 4 contain measurement errors. Figure 4 proxies the trade balance with the somewhat broader current account balance.

5. The U.S. Treasury has primary responsibility for intervention in the United States. The Federal Reserve acts as the Treasury's agent and trades for its own account.

6. See Owen F. Humpage, "The United States as an Informed Foreign-Exchange Speculator," *Journal of International Financial Markets, Institutions, and Money*, vol. 10, no. 3–4, (September/December 2000), pp. 287–302.

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