ECONOMIC COMMENTARY

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Does Dollar Depreciation Matter: The Case of Auto Imports from Japan
by Gerald H. Anderson and John B. Carlson

In April 1987, the value of the U.S. dollar fell substantially, continuing a slide that began in February 1985 when the dollar peaked in relation to most currencies. Then worth more than 262 Japanese yen, the dollar is currently trading at about 140 yen. This means that it now takes 85 percent more dollars than it did in February 1985 to buy the same amount of yen. The dollar has demonstrated similar movements relative to currencies of some other major trading partners (see chart 1).

On the surface, it would seem that the dollar price of Japanese exports to the United States would need to rise by 85 percent as the dollar depreciated relative to the yen. More generally, it would seem that prices of most imports should be rising sharply; thus reducing the volume of imports demanded. In fact, while prices of many U.S. imports have accelerated somewhat, the rate of increase has been relatively moderate—much less than one might expect from observing exchange-rate changes alone (see chart 2). Furthermore, despite these price increases, the volume of imports has not fallen significantly. In fact, until the first quarter of 1987, the volume of nonpetroleum merchandise imports had risen in every quarter since the dollar began to depreciate. In the eight quarters since the dollar’s decline began, nonpetroleum merchandise import volume has risen 17 percent. The effects of exchange-rate changes typically occur with a lag. However, recent studies indicate that pass-through—the extent to which a change in the exchange rate leads to a change in import prices—may have been altered significantly in the 1980s.1 Historically, estimates of long-run pass-through typically range between 60 and 80 percent, and most estimates indicate that pass-through is essentially completed in a two-year period. The current experience suggests that import prices are now responding more sluggishly to exchange-rate changes than that less of the exchange-rate changes will ultimately be passed through. Why haven’t the expected effects of dollar depreciation become more manifest? Were profit margins of foreign exporting firms so large that they could absorb a larger share of the exchange-rate changes? Or are these firms now losing money? To be sure, profit margins have been reduced. However, firms competing in export markets have developed ways to limit their exposure to exchange-rate changes. Some of these techniques affect only the timing of pass-through, suggesting that much of the impact of dollar depreciation is still in the pipeline. On the other hand, other developments could limit the ultimate impact of exchange-rate changes on prices of imports, suggesting that less...
of the recent exchange-rate change will be passed through to import prices in the near future. There are, however, ways in which firms can reduce the impact of exchange-rate changes. These practices essentially "hedge" exposure through diversification of costs, and thereby reduce pass-through to prices.

Diversification of Costs

Firms can limit their exposure to exchange-rate changes by hedging their currency exposure. For example, a firm can enter into forward contracts to lock in future exchange rates. But forward contracts are only one of many techniques firms can use to hedge against exchange-rate risk. Other techniques include entering into options and futures contracts, as well as entering into currency swaps.

Currency Swaps

Currency swaps are agreements to exchange currencies, usually in two business days, although the difference between spot and futures prices can be large, depending on the expected change in currency valuation.

The effectiveness of hedge practices in reducing the impact of exchange-rate changes has been questioned. Some studies have shown that hedging practices can be effective in reducing the impact of exchange-rate changes, while others have shown that the benefits of hedging are often offset by the costs of hedging.

2. The difference between spot and futures prices can be large, depending on the expected change in currency valuation.


4. Import prices of new passenger automobiles rose at an annual rate of 26.7 percent in March 1985 and March 1987. The yen appreciated against the dollar during this period, which increased the amount of yen that the dollar could purchase and thus reduced the yen cost of imports. The yen cost of imports increased by about 23 percent from March 1985 to March 1987, while the dollar cost of imports increased by about 33 percent over the same period.


7. Some import contracts may provide for changes in prices if exchange rates change.