

Currencies And Federal Reserve Trade Weights

Everything you know is wrong, and the global exchange rate system is based on a false premise. Now that we have those housekeeping chores out of the way, let's go a little deeper into the data and address the second part of the statement, the one dealing with currencies. A lot deeper, actually: In this, the first of a two-part discussion on the link between currencies and the Federal Reserve's trade weights, we will provide an overview of the methodology and terms used and a discussion of the "major" currencies and their trade weights. That will be followed next month by a discussion of the "minor," currencies and their trade weights.

Background

We have to go all the way back to the adoption between 1971 and 1973 of floating exchange rates, a topic addressed here in December 2005 (see "The Dollar Index and "Firm" Exchange Rates"). The argument advanced on behalf of floating exchange rates is repeated verbatim from that article:

The premise behind allowing currencies to float was they would lead to self-correcting trade balances. In a fixed-rate regime such as Bretton Woods, countries in a deficit position such as the United States in the late 1960s see an outflow of gold and foreign exchange reserves. These outflows lead to a reduced capacity to consume, a development detrimental both to the deficit country and to all those exporting thereto. In fact, it was to address the inevitable "balance of payments crises" associated with growing economies importing too much that the IMF was created in the Bretton Woods agreement in 1944.

Floating exchange rates, or so the theory went, would address payments imbalances by seeing deficit countries' currencies depreciate on the global market and lose purchasing power. If, for example, the United States ran a trade deficit, it would be pumping out additional dollars to exporters. Each new dollar on the world market would be a smaller claim on exporters' resources and reduce the U.S.' ability to import more. In addition, U.S. exports would become cheaper on global markets and expand American exports.

The end result of a weaker currency was supposed to be a move away from a deficit condition. The opposite was supposed to occur with a stronger currency.

The logic behind this argument has been advanced often by trade protectionists around the world and by the IMF itself in its repeated and usually disastrous advice to debtor countries to depreciate their currencies to improve their trade balances. It was used as a bludgeon against Japanese automakers during the 1970s and 1980s, against textile exporters in all decades and has been a staple of Senators Graham (R., S.C.) and Schumer (D., N.Y) vis-à-vis China.

Even though the principal advocate of floating exchange rates, the late Milton Friedman, was the antithesis of a protectionist, his arguments have been seized thereby to the extent we will refer below to the notion that a weaker currency should stimulate exports and reduce exports as the protectionist argument.

Data And Methodology

The Federal Reserve calculates a [trade-weighted dollar index](#). To do so, it has to keep track of the changing use of various currencies the U.S. receives in return for its exports and pays for its imports. In all of the charts involving trade weights presented below, export weights will be depicted in blue and import weights in green.

These weights are calculated on an annual basis and of necessity after the fact. In combination with the Federal Reserve not being able to license its dollar index for commercial purposes, this explains why many traders are unfamiliar with these data.

We have to emphasize as well these currency weights reflect their use in bilateral trade with the U.S. and do not reflect total bilateral trade. This is critical for countries from whom the U.S. imports large quantities of goods priced in dollars, such as crude oil and various metals.

Annual data are of little trading use in a continuous market such as currencies. We can create smoothed series of import and export weights via a statistical technique called [cubic spline interpolation](#); this is used twice in the charts below, once to create quarterly series from the annual numbers and a second time to create monthly numbers from the quarterly results. The resulting interpolations are far easier to absorb than the annual numbers, but as they involve two separate data transformations, we will not attempt any further statistical analysis against monthly

currency values, presented in red in the charts below. In addition, please be advised all currencies will be displayed in the “USD per” convention familiar to traders of the euro, the British pound and futures traders. The currency scale will be inverted for currencies commonly expressed as “per USD” so that a rising red line always conveys strength and a falling red line always conveys weakness.

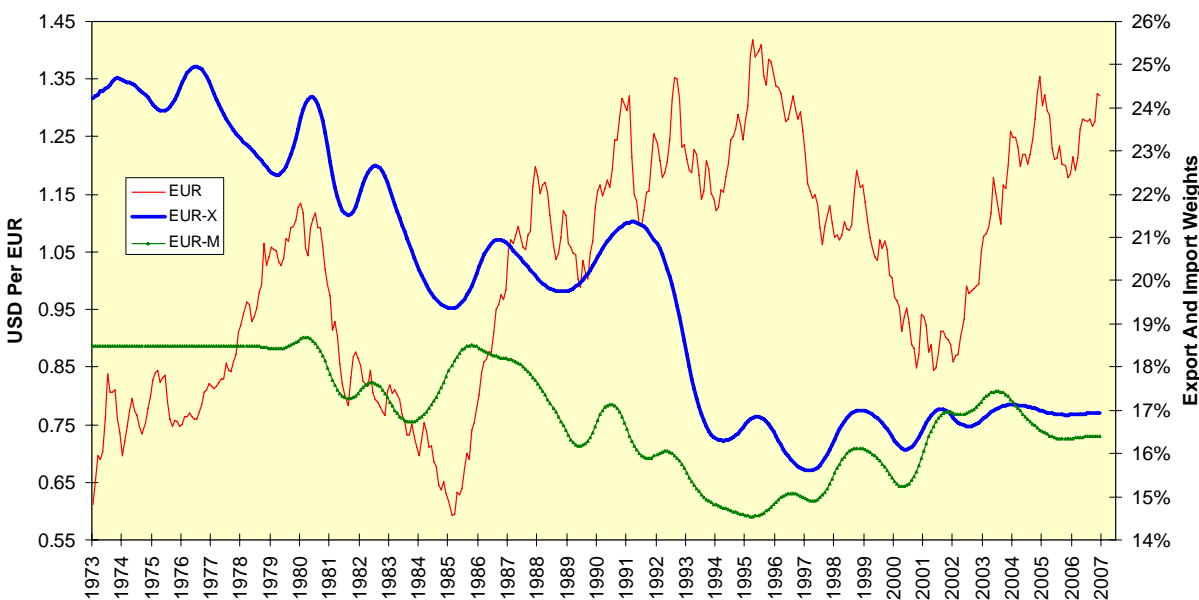
You are invited to ponder the ecological nature of the global currency system. Over the past 35 years we have seen the extinction of the euro’s precursors and a number of disappearing currencies in countries such as Brazil and Argentina, both of whom continuously fail to manage their affairs. We also see the effects of various currency boards, direct pegs to the dollar, managed floats, trade blocs and new currencies coming on to the scene. Currencies are dynamic entities; they come and go, and even when they persist they represent nothing in the way of fixed purchasing power. The U.S. dollar, still the lynchpin of the global economy, has lost 79.68% of its purchasing power since the December 1971 Smithsonian Agreement began the floating exchange rate era.

The Major Currencies

The euro stands as the principal alternative to the dollar and it is fair to say its movements convey to most traders the sense whether the dollar is strengthening or weakening. Regardless of whether the euro or its collective predecessors were strengthening or weakening over the entire period, the general trend of U.S. export weights to the Eurozone was lower. This was even true during the 1987-1994 period in which the dollar weakened significantly against the euro. A weaker dollar never made U.S. exports to the Eurozone more competitive. The opposite is not quite true; import weights did in fact trend lower between 1987 and 1994. However, import weights did not fall significantly as the euro strengthened between 2002 and 2004.

The protectionist argument fails and fails significantly for the euro.

The Euro And Its Weight In U.S. Trade

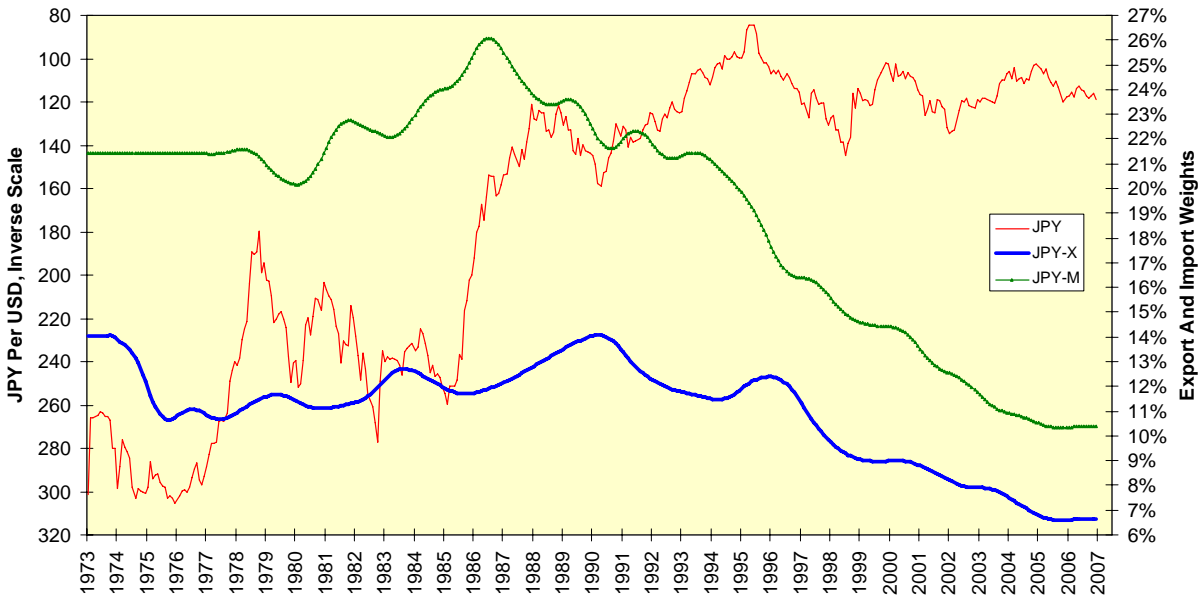


Japanese Yen

The Japanese yen used to be the favorite whipping boy of the protectionists, especially in the auto industry. The yen shot higher during the 1980s stock-and-land bubble in Japan, and its weights in U.S. imports began a decline still underway. Restated, when the yen more than doubled against the dollar, Japanese goods did become more expensive. They were replaced, as we shall detail next month, either by cheaper exports from sources such as China and other Asian exporters or from Mexico or by Japanese goods made outside of Japan, principally Mexico and the U.S.

The weaker dollar did nothing to increase export weights to Japan. They peaked in the early 1990s and have fallen ever since. Much of this is due, of course, to Japan’s Lost Decade, now in its 17th year by some measures. The rest is due to various non-price trade barriers in Japan and to the availability of cheaper goods from Asian sources.

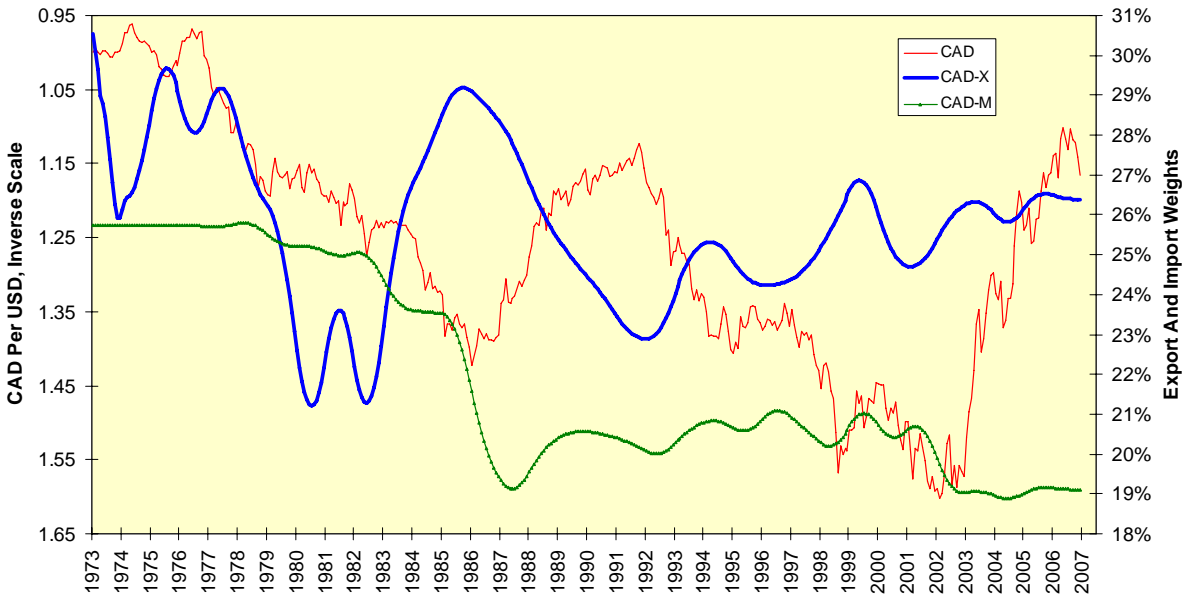
The Japanese Yen And Its Weight In U.S. Trade



Canadian Dollar

The early 1980s decline in the Canadian dollar should, by the protectionists, have increased its import weights and decreased its export weights. Not only did the exact opposite occur, but a subsequent rebound from 1987 to 1992 had no reversing effect. Finally, the huge 2003-2005 rally in the Canadian dollar had no discernible effect on either import or export weights. The adoption of NAFTA in late 1993 preceded a general trend of increasing export and decreasing import weights regardless of currency movements, which suggests the free trade agreement produced economic efficiencies greater than the frictions caused by any currency fluctuation.

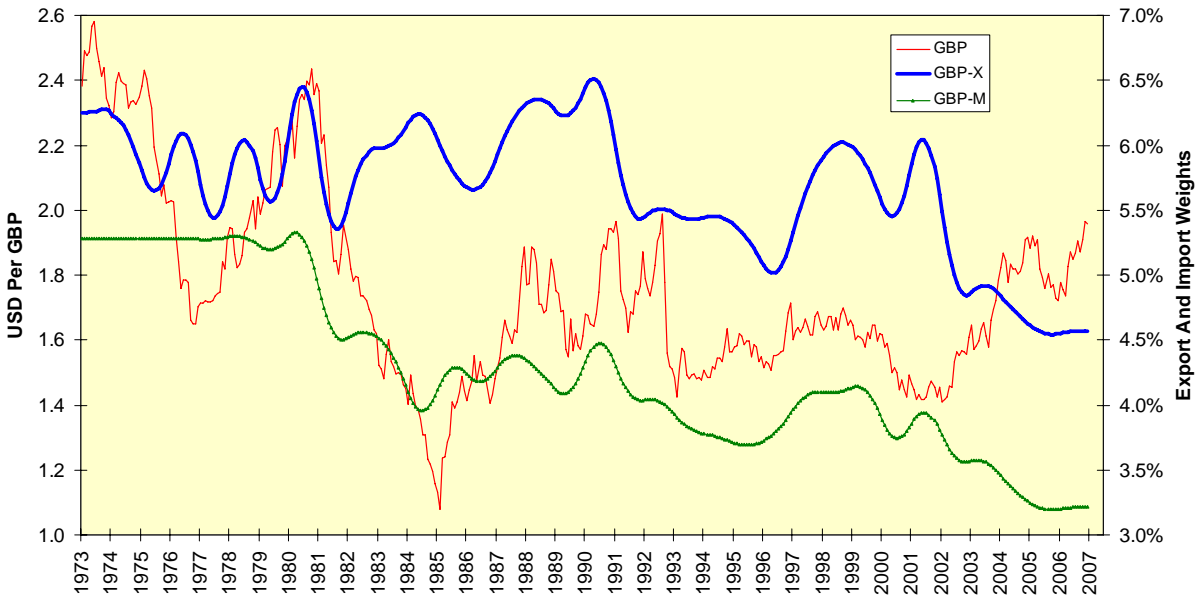
The Canadian Dollar And Its Weight In U.S. Trade



British Pound

The pound's sharp decline in the early 1980s was matched by a decline in its import weight, indicating British imports were not competitive even with the currency-derived discount. Those weights have continued on a gradual downward path to this day. American export weights to the U.K. began a similar decline in the early 1990s once the pound entered what has proven to be a trading range of unusual duration. Regardless of the pound's direction, the share of American trade claimed by the U.K. has declined over the past fifteen years.

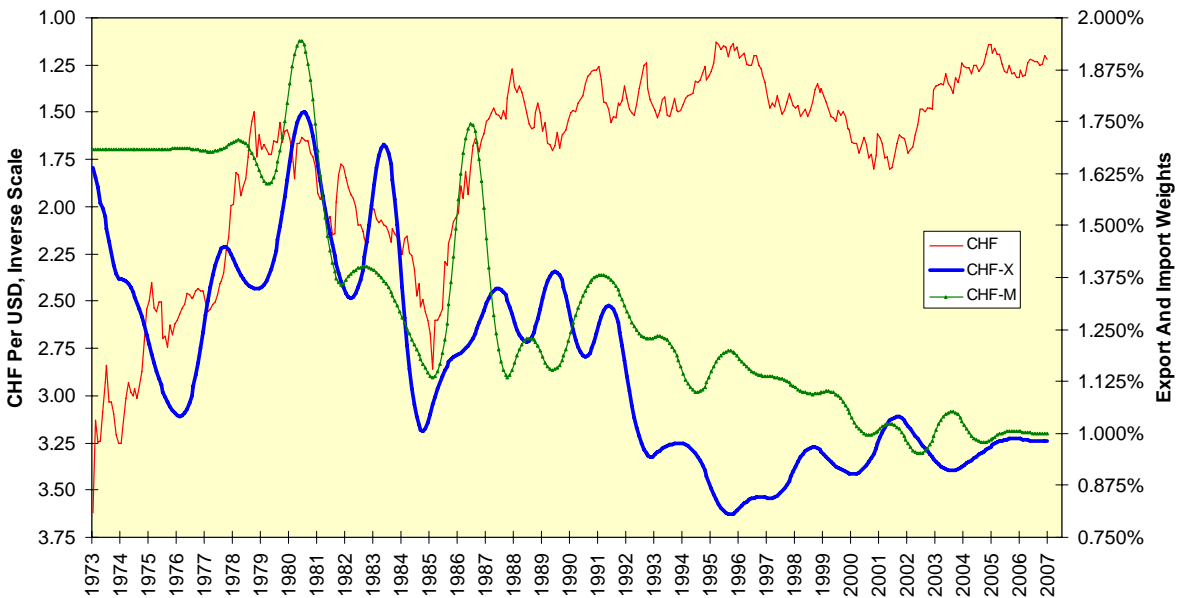
The British Pound And Its Weight In U.S. Trade



Swiss Franc

A weaker Swiss franc in the early 1980s led, in direct contravention to the protectionists' theories, to a sharp decline in import weights. Moreover, those weights increased after the franc rallied in 1986-1987, and then embarked on a long secular decline. Export weights from the U.S. to Switzerland fell sharply into 1996, and then rebounded somewhat regardless of what the currency did. As much of U.S.-Switzerland bilateral trade is in specialty and luxury goods, we should not expect to see much of a price elasticity on either side of the equation, and we do not.

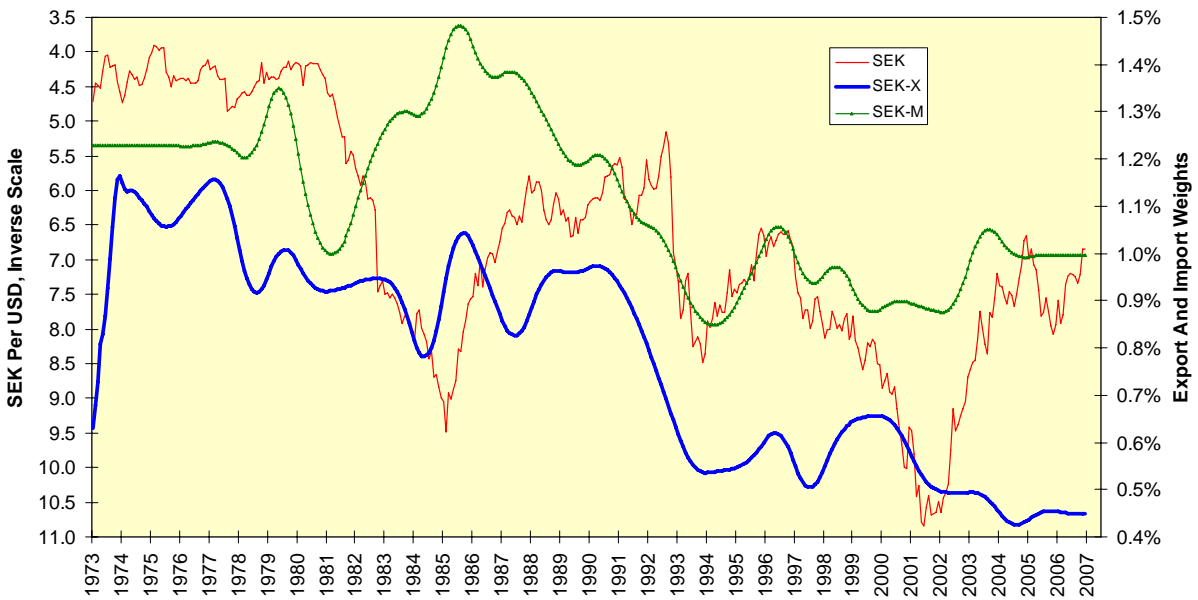
The Swiss Franc And Its Weight In U.S. Trade



Swedish Krona

Export weights of the Swedish krona have declined steadily since the early 1980s. Import weights behaved according to the protectionist model during the dollar rally of the early 1980s, but scarcely moved between 1998 and 2002 as the krona weakened. The sharp rebound between 2003 and 2005 had no discernible effect on either import weights or export weights.

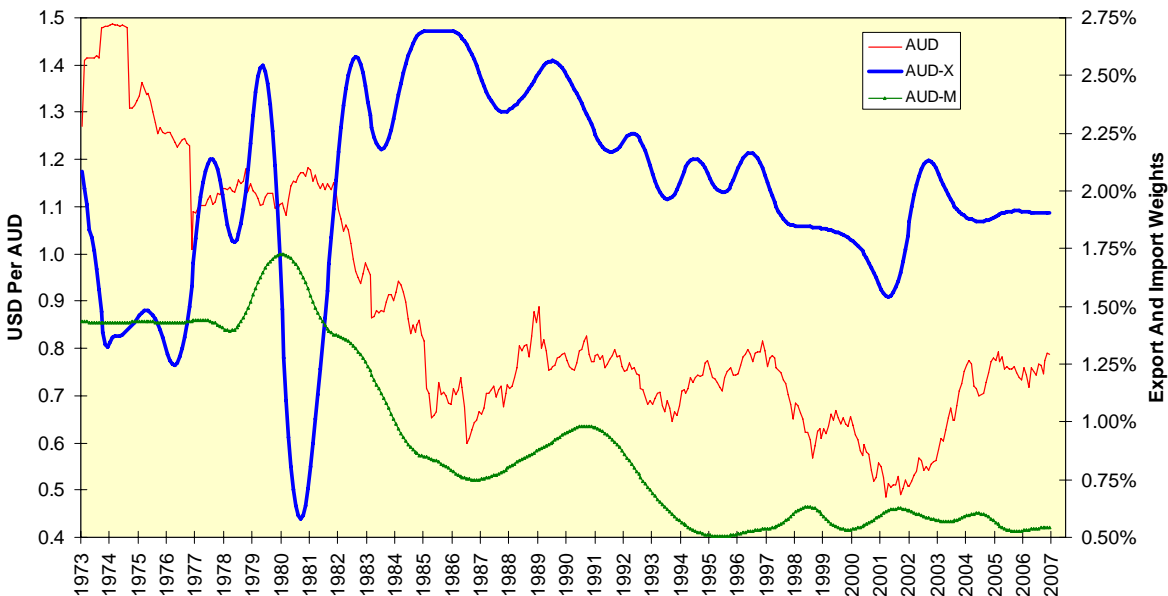
The Swedish Krona And Its Weight In U.S. Trade



Australian Dollar

This, the last of the major currencies to be discussed, has a mixed history. Its import weights declined between 1980 and 1995 even as the Australian dollar remained in a long-term downtrend. These weights have remained flat over the past decade regardless of currency movements. However, in one of the few cases where the protectionist model works, export weights to Australia have mirrored the currency’s course since the mid-1980s. This is one of the few times when American goods and services became more competitive with a weaker U.S. dollar.

The Australian Dollar And Its Weight In U.S. Trade



Conclusion

A review of U.S. trade patterns with major currency trading partners reveals little evidence for the simple model that a weaker currency leads to greater export competitiveness and a lower ability to import. A review of the minor currencies next month will do nothing to change this conclusion.