Currencies And Relative Import Inflation

H.L. Mencken observed, "For every complex problem, there is a solution that is simple, neat and wrong." This describes much of modern economics and probably a great of pre-historic economics as well: An apparently simple relationship soon is surrounded by footnotes, exceptions and codicils so vast they give off the impression economists are a bunch of devious louts incapable of agreeing with reality much less with each other.

The linkages between currencies and trade weights fall into this category. The classic response is a stronger currency makes a country's exports more expensive and therefore lowers both its current account surplus and that nation's share in its customers' current balances (see "Currencies and Federal Reserve Trade Weights" and "Minor Currencies and Federal Reserve Trade Weights," July-August 2007). If only this assertion was substantiated in the four decades of data available since the collapse of the Bretton Woods fixed exchange rate regime and the adoption of flexible exchange rates.

Key U.S. Suppliers
If a stronger currency is to have these effects on current account balances it should raise the price of imports denominated in that currency relative to the importer's base level of inflation. This is a readily testable proposition; our good friends at the Bureau of Labor Statistics keep track of these import price indices. We can normalize them to the GDP deflator distributed down from quarterly to monthly data using cubic spline interpolation and match them up against a set of five currencies re-indexed to the December 2003 starting point for the Chinese and Mexican import indices.

The currencies selected are the Canadian dollar, Mexican peso, Chinese yuan, euro and Japanese yen. Together they account for 76% of the weight in the Federal Reserve's trade-weighted import balances. Their relative import price indices (RIP, no pun intended), the BLS numbers relative to the GDP deflator, have varied widely over time. They also have something of a Rorschach test quality to them. For example, Japan's RIP has been flat throughout the post-March 2009 quantitative easing era while China's RIP has moved up and down in a manner similar to Canada's even though the two countries' export mixes to the U.S. are very different. The Canadian and Mexican RIP's have increased over time, but both have demonstrated a strong capacity to move lower quickly when events such as the 2008-2009 financial crisis dictate. Finally in this regard, the RIP for the Eurozone has been the least volatile of the quintet even though both the dollar and the euro are defined against each other so heavily.

Import Inflation Trends Diverge Widely
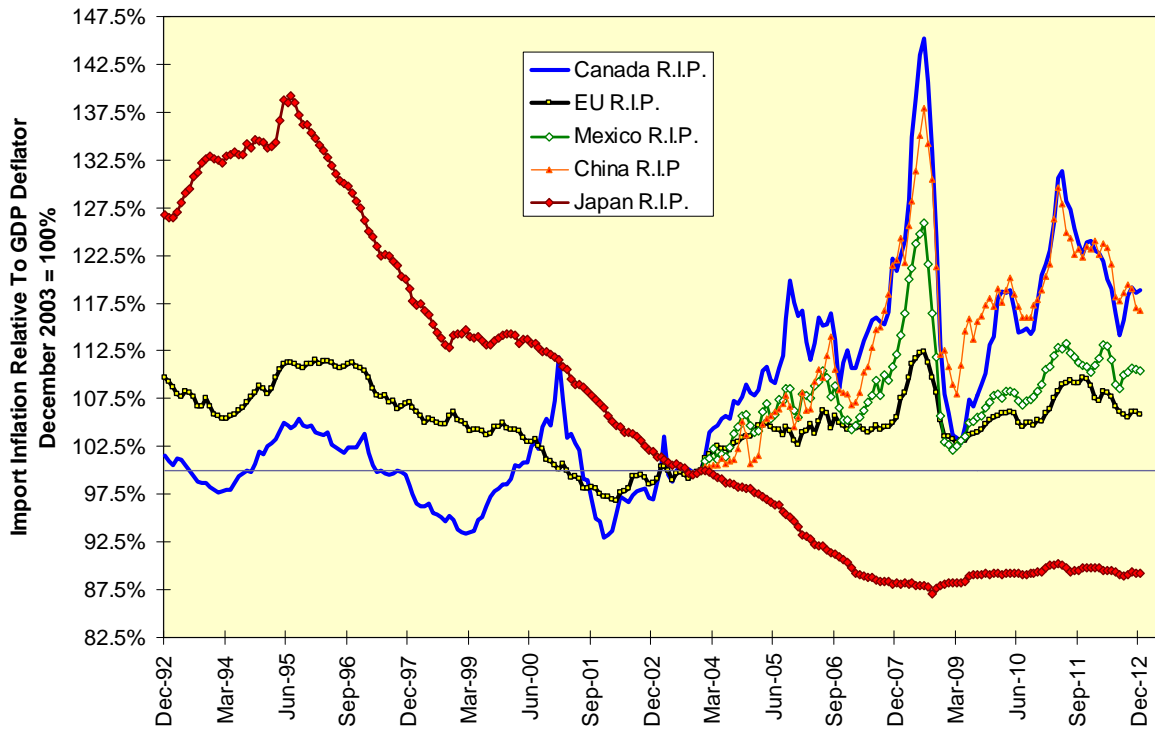
Now let's display the currency index (CI) for each of the five currencies; the MXN is displayed on a separate scale to account for its strong depreciation against the USD during the 1990s. Interestingly enough, and for all of the complaining about the grudging revaluation of the CNY, it has appreciated more against the USD than have the currencies of the other major exporters to the U.S.

Currency Trends
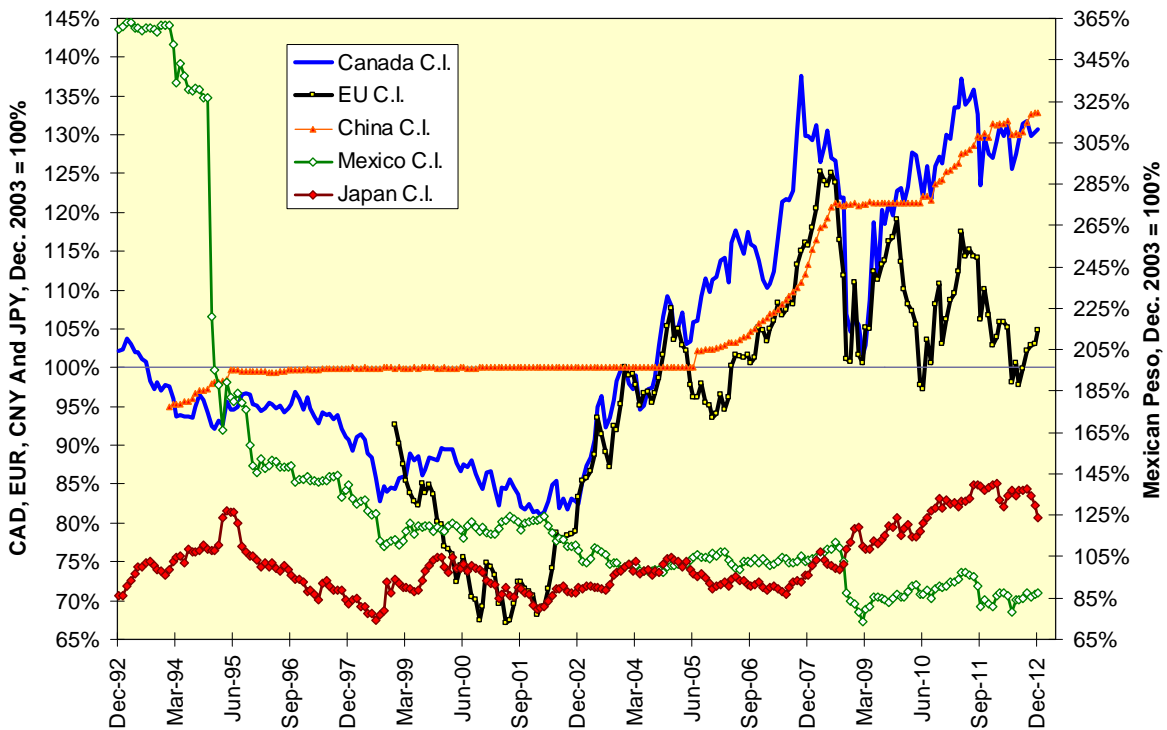
Lead/Lag Relationships

We should not expect a contemporaneous response to currency changes in the RIP's; it takes time for currencies to change supplier relationships and for orders to be affected. What is surprising is how quickly these lead-times operate; it might be reasonable to expect something along the order of 3-6 months, but in the cases of the CAD and the EUR, the lead-times are three and two months, respectively. What this tells us is exporters are very willing to sacrifice operating margins to maintain market share.

The Euro Leads Relative Import Price Index
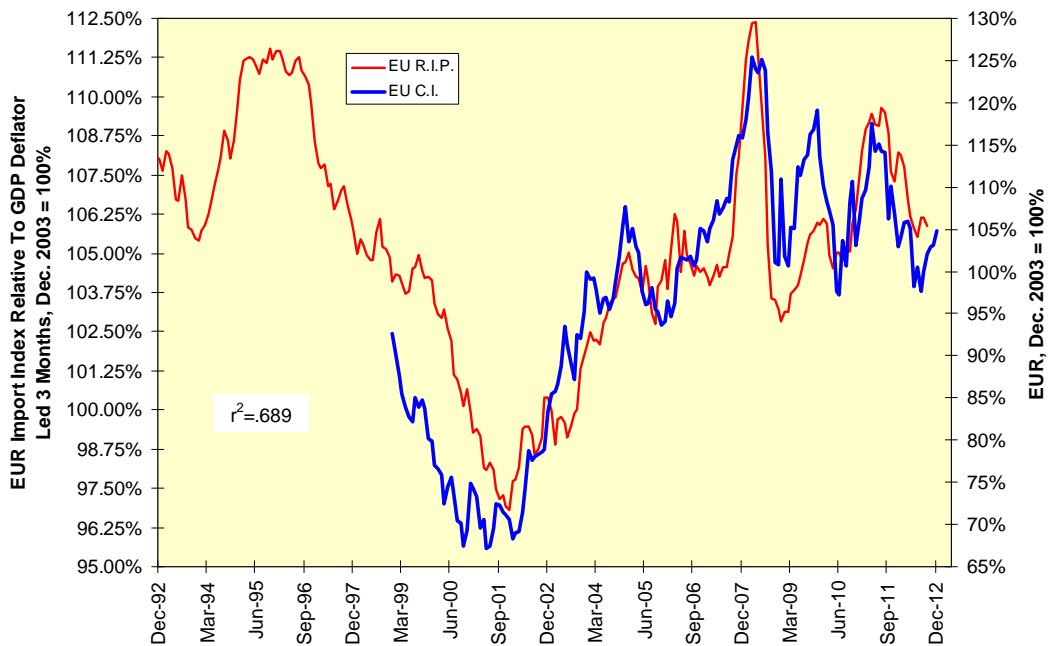
The Canadian Dollar Leads Relative Import Price Index
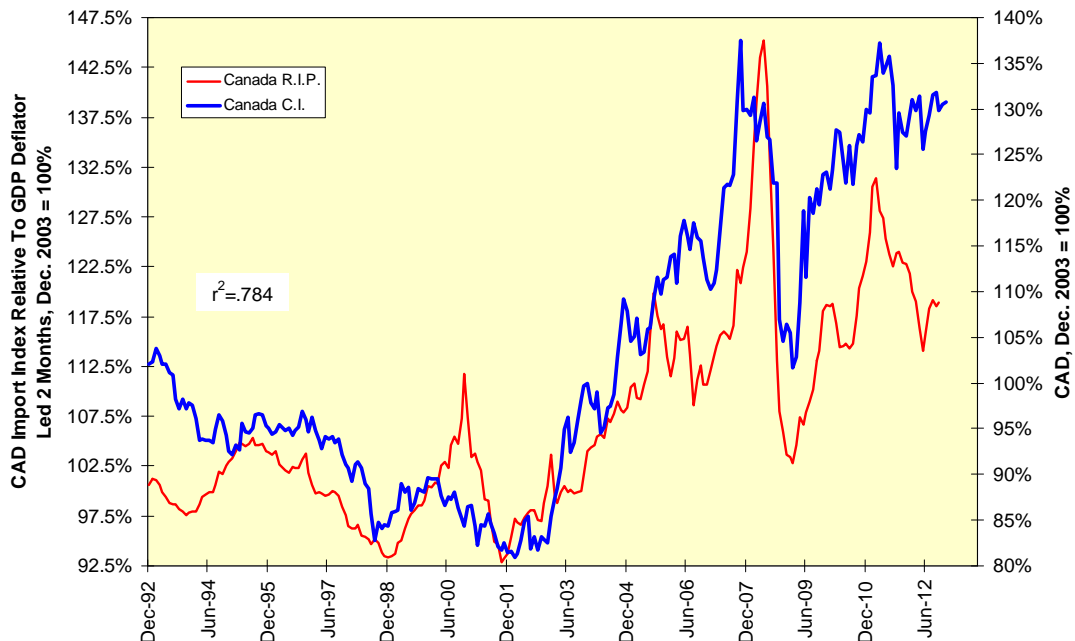
None of the other three currencies examined have a demonstrable leading relationship to their associated RIP. This is quite understandable in the Chinese case where their on-again/off-again revaluation policy has distorted statistical relationships; more important, China's cost advantages have been such to preclude erosion of its competitive position via a stronger CNY. The Japanese case has been simpler; deflationary pressures there led to years of a stronger JPY and continual deterioration of its competitiveness in export markets.

It is important to note China long has feared a reprise of the Japanese experience with a rising JPY during the 1980s; they see it as having led to Japan's consecutive Lost Decades. No country can remain the cheapest labor source and world pollution haven forever. China has been losing some export markets to cheaper labor sources such as Vietnam, and its pollution crisis is reaching the point where it could threaten social order. Adjustments to China's production cost structures are inevitable and will take years to unfold.

A second process will be underway amongst China's customers, the U.S. in particular, and that is the reestablishment of domestic supply chains in response to the higher import costs. Higher international transit costs and cheaper domestic natural gas have created incentives for manufacturing to return to the U.S. This process will take years to unfold as much of the manufacturing culture of the U.S. has lapsed into desuetude since the early 1970s.

The one risk to this scenario will be an aggressive move by China to impede the CNY's revaluation. The short-term benefits to China will involve current account surpluses; the U.S. will enjoy complementary benefits of cheaper imports. But this will be one more exercise in kicking the can down the road, as if policymakers anywhere would stoop to such tactics.

Finally, Mexico has had a hybrid situation involving the large dominance of intra-subsidiary transfers, free-trade agreement preferences and a large crude oil export sector priced in USD. Fluctuations in the MXN over time have affected the Mexican RIP, but not in a statistically significant manner.

Competitive Devaluation
The global urge to improve economic fortunes by trashing the purchasing power of fiat money could work to the advantage of U.S. consumers and importers over time. The effects of the downside breakout in the JPY starting in November 2012 have not been felt yet, but will be if Japan succeeds in recapturing the share of U.S. imports it has lost over the past quarter-century. Its weight in the U.S. import picture has declined from 25.87% in 1986 to 7.85% in 2012. If the yen-weakening campaign is executed through large-scale purchases of U.S. assets, those capital exports must be matched by increased exports of goods and services to the U.S., and the effect of incremental supply always involves lower prices and hence downward pressure on relative import prices.

Incidentally, Canada's share of U.S. exports has declined very significantly over the same period as well, from 20.34% in 1986 to 13.95% in 2012.

Capital exports to the U.S. involve purchases of USD-denominated assets, both financial and real, and thus will keep the trade-weighted dollar stronger than it would be otherwise despite the Federal Reserve's best efforts at money-printing. Trade-weighted dollar has declined at "only" an average annual rate of 3.91% since the March 2009 inception of quantitative easing.

Imports will remain a relatively stable portion of the U.S. inflation picture for as long as this vendor financing mechanism persists. Efforts made elsewhere to devalue currencies involve vendor financing of the U.S. as a customer and the export of cheaper goods and services to the U.S. to offset those capital exports. The U.S. consumer will get the benefit of those cheaper goods and services even as domestic industries more insulated from global competition such as medical care and education continue to soar in price.