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International Trade, Monetary Policy, and the Yellow Brick Road

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International Trade, Monetary Policy and the Yellow Brick Road[1]

by

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Now a century old, Frank Baum's *The Wonderful Wizard of Oz* continues to captivate children of all ages. But, perhaps no audience is more enamored of the tale than economists, who believe the story describes the economic and political wars fought between western agricultural interests and eastern money interests at the end of the nineteenth century. In particular, some economists believe that Frank Baum, a resident of Aberdeen, SD, used the Yellow Brick Road (The Gold Standard) as an allusion to a strong dollar policy, complete with high interest rates and low inflation.[2] While this policy was popular in Oz (Washington D.C.), it did not serve American agricultural and manufacturing interests (Scarecrow and the Tin Man, respectively) because falling prices lowered revenues while the costs of production remained relatively constant.

Today, America's strong demand for imports has once again tilted policy in favor of a relatively strong dollar, since a significant fall in the value of the dollar could ignite inflation as imports become more expensive. But, although a strong dollar policy has helped propel the US economy into its 9th year of economic expansion, the benefits to the Upper Midwest have been tenuous at best.[3]

A Primer on International Trade

The international sector of an economy is comprised of two parts: foreign purchases of goods and services produced domestically (exports) and domestic purchases of goods and services produced abroad (imports). Exports are 'expansionary' since as exports rise, domestic inventories diminish and/or domestic production increases; likewise, imports are 'contractionary' because as imports rise, domestic inventories accumulate and/or domestic production falls. A balance of trade surplus arises when net exports (the difference between exports and imports) are positive; while a balance of trade deficit occurs when net exports are negative.

Does International Trade Matter?

That the net effect of international transactions in goods and services matters little to aggregate spending in the US seems plausible since the trade deficit currently measures only 4.3% of real GDP, or $24 billion.[4] But the trade deficit shrouds the extent to which the US economy is dependent upon the global marketplace. In particular, US exports comprised 13% of total spending on goods and services produced in the US in the second quarter of 1999, while total trade (exports plus imports) grew to 30% of GDP. Hence, at least one very salient fact about the US economy is concealed in the data on net exports: one eighth of the demand for US output is foreign.

Nonetheless, recent attention to the trade deficit has focused on another matter entirely. Namely, as imports continue to outpace exports, foreigners receive more dollars than Americans receive of foreign currencies. This means that the share of dollar-denominated securities in foreign portfolios is rising, as is the likelihood that foreign portfolio managers will unload their excess dollar holdings. If such a sell-off were to occur, the dollar would weaken significantly, import prices would rise, and the current US expansion would slow. The concern that a rise in the price of imports could lead to a jump in inflation has placed policy makers firmly upon the Yellow Brick Road. That is, the dollar is relatively strong (figure 1), interest rates are rising

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[1] Presented at the 1999 South Dakota Bankers Association Meetings, held in Mitchell and Webster, SD on September 20th and 21st, respectively. Thanks to Evert Van der Sluis for insightful comments and suggestions.

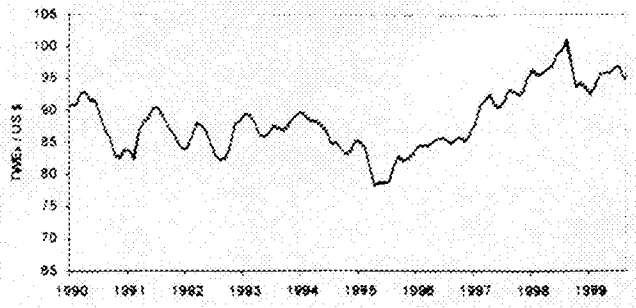
[2] Rockoff, Hugh, "The 'Wizard of Oz' as a Monetary Allegory," p. 746.

[3] National Bureau of Economic Research, "US Business Cycles, Expansions and Contractions."

[4] US Dept. of Commerce, Bureau of Economic Analysis.

to keep dollar-denominated investments attractive, and price level growth is trivial.[5]

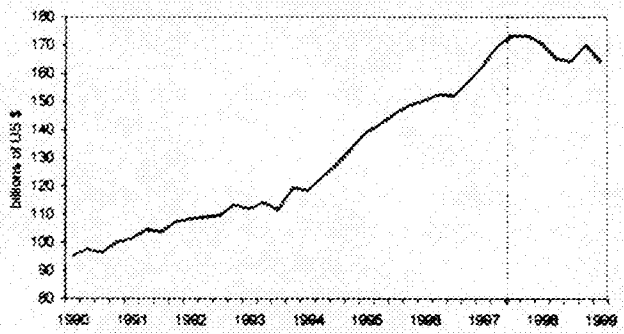
Figure 1: Trade Weighted Exchange Value of US Dollar, 1990.01-1999.08, monthly data, major international currencies
Source: Federal Reserve Board of Governors



The US Dollar: An Upper Mid-West Perspective

The international value of the US dollar matters to US agricultural interests in one respect: exports. In general, a strong dollar increases the foreign price of US exports, making the US relatively less competitive in the international marketplace. Meanwhile, a weak dollar lowers the international price of US exports, thereby increasing US competitiveness abroad. Figure 2 illustrates this point with a plot of US exports before and after the Asian crisis, which began in July of 1997 with a devaluation of the Thai Baht.

Figure 2: Exports of Merchandise, 1990.1-1999.1, SA, quarterly data
Source: US Dept of Commerce, Bureau of Economic Analysis



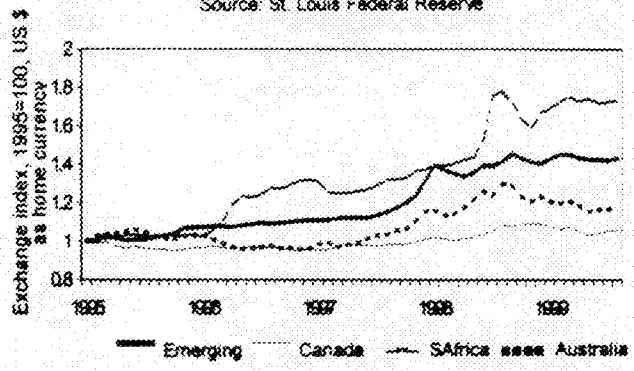
As the Asian crisis matured, international investors rushed to buy dollar-denominated assets, causing a rise in the dollar and a fall in US exports. Now that both the dollar and import demand are relatively strong, US policymakers find themselves maintaining the strong dollar for fear of a rise in import prices. The implication for US agriculture is clear: to the extent that foreigners purchase US agricultural output, a strong dollar hampers the competitiveness of the Upper Mid-West economy in the international marketplace.

But do exports matter to US agriculture? Of the top 100 commodities exported from the US in 1998 (according to dollar volume), soybeans, corn and wheat ranked 14th, 17th, and 24th, respectively, while their total dollar volume combined ranked 6th (aircraft and automobiles ranked 1 and 2, respectively).[6] Dollar volumes were $4.9 billion for soybeans, $4.4 billion for corn and $3.5 billion for wheat. Moreover, during the 1998/1999 growing season, foreign demand for US agricultural exports accounted for 21% and 42% of course grain and wheat production, respectively.[7]

The Competition

While the US is the dominant player in the three commodity types described above, foreign competition is present in each market. In particular, four other major producers compete in corn (market share in parentheses): Argentina (12%), China (5%), Hungary (3%) and S. Africa (1%), four others compete in wheat: Australia (17%), EU (17%), Canada (16%) and Argentina (9%), and four others in Soybeans: Brazil (22%), Argentina (6%),

Figure 3: Exchange Rates, Ag-Producing Nations, 1995=100, monthly data
Source: St. Louis Federal Reserve



Paraguay (4%) and the EU (3%).[8] Figure 3 illustrates how some of these competitor's currencies have fared against the dollar since 1997.

The "Emerging" series is a trade-weighted average of smaller, developing economies, including Argentina, Brazil, China and Paraguay. With the exception of the Euro and Argentina's Peso (shown

[5] A trade-weighted exchange rate equals the weighted average of the US' major trading partners' exchange rates, where weights are determined by trade volume. For more on trade-weighting see Leahy, Michael (1998).

[6] US Dept. of the Census.
[7] USDA Foreign Agricultural Service.
[8] Ibid.

here as a component of the Emerging series), all of the US' competitors in the production of corn, wheat and soybeans have currencies that are significantly undervalued against the US dollar.[9] Hence, US commodities are relatively more expensive than those produced in these other nations.

A Strong Dollar is Particularly Hard on Agriculture

While a strong dollar decreases the demand for US exports overall, as foreigners purchase goods and services produced by other exporting nations, agricultural bulk commodities are hit particularly hard because they are largely homogenous (or identical in most respects). While this may seem like an innocuous quality, the implication for export demand is sobering. Unlike other US exports, perfect substitutes exist for US agricultural output; that is, soybeans produced in Brazil are more or less identical to those produced in the northern plains of the US. Therefore, the demand for US exports is extremely price-sensitive. Table 1 illustrates this point with a comparison of export growth rates between 1995 and 1998 for corn, wheat, soybeans (SBs) and all US exports (agricultural and nonagricultural combined).

Table 1: Annual Growth in US Exports, 1995-1998, Agricultural v. All Exports, annual averages of quarterly data

	Corn	Wheat	SBs	All
1995	2.3%	4.5%	1.6%	14.7%
1996	-19.4%	-19.3%	3.6%	6.3%
1997	-16.2%	3.9%	-1.4%	11.1%
1998	13.0%	5.8%	-4.6%	-1.3%

Source: USDA

While growth in total US exports did not exhibit the effect of a strong dollar until 1998, slow or negative growth in US agricultural exports began in 1995 for corn, wheat and soybeans. This was due, in part, to the homogeneous nature of these commodities, which allowed competitors to increase market share at the expense of the US.

Policy Prescription

The view taken here is that the relatively strong value of the US dollar, as measured against other agricultural producing nations' currencies, has hampered US competitiveness in the global marketplace. Nonetheless, a weak dollar policy could be a detriment to US growth at this time. Namely, given the US' current import demand (roughly 17% of GDP) a weak dollar could lead to inflation and slow the current US expansion. Second, much of the strength in the dollar is the result of a 'flight to quality' by the international community. That is, investors are, for the time being, not desirous of the investments (direct or financial) in the world's emerging economies, hence they have chosen to abandon these currencies in favor of the dollar. Therefore, a long-run solution will require the legal and financial frameworks of these emerging economies to be rehabilitated such that foreign investment will once again flow into their currencies. Indeed, some of these changes have occurred, as evidenced by the rebound in corn and wheat exports since the Asian crisis began in June of 1997.

Conclusion

This article offers a partial explanation for the recent weak export demand for US agricultural production.[10] Namely, that America's strong demand for imports has tilted US policy in favor of a relatively strong dollar, since a depreciation of the dollar could ignite inflation. As a result, the Upper Midwest's competitiveness in the global marketplace has been compromised. Nonetheless, that a weak dollar policy can benefit the economy at this time is not likely. Instead, a long-run solution will require a restructuring of the legal and financial frameworks of emerging market economies so that foreign investment will once again flow into their currencies.

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USDA Foreign Agricultural Service, www.fas.usda.gov.

US Department of the Census, www.census.gov.

US Department of Commerce, Bureau of Economic Analysis, www.bea.doc.gov.

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[9] Currently, the Euro and the Peso are overvalued and pegged to the US dollar, respectively.

[10] No doubt, other factors have contributed to weak export demand as well, including foreign production expansion (i.e., Brazil) and self-sufficiency programs (i.e., China).

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February 2000
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Contact your local County Extension Office for specific details of the marketing/price risk management workshop nearest you.

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