H. Evan Drummond

A Strong Yen for Better Farm Prices

Economists love paradoxes. Here's a good one. During the past half decade prices received by American farmers for most major agricultural commodities have declined. Therefore, according to the "law" of demand, foreign buyers should be buying more of these relatively cheap commodities, shouldn't they?

In fact, what has happened on world commodity markets is just the reverse. Paradoxically, as prices received by U.S. farmers have fallen, grain purchases by foreigners have also fallen.

Is the "law" of demand no longer operative, or are there some other forces at work in world grain markets? To find out we need to explore the dealings of international financial markets and learn about foreign exchange rates.

The Dollar as a Commodity

An exchange rate—sometimes called a foreign exchange rate—is nothing more than the price of one currency expressed in terms of another. To a typical American, the dollar is both a store of value and a means of exchange. But to foreigners, the dollar is a commodity no different from other commodities that are bought and sold at prevailing prices.

It is difficult to think about the dollar as just another commodity, but that's all it is in other countries. The price of beer in Germany is quoted in marks per liter and the price of tea in France is quoted in francs per kilo.

In each case, the price of a commodity is quoted in terms of local currency units per unit of the commodity. Therefore, it should not be surprising that the price of the dollar in Italy is quoted as lira per dollar—how many lira are required to purchase one dollar.

Exchange rates are critical factors in world trade patterns. For example, let's think about the dollar in Japan. When a Japanese consumer buys a loaf of bread, it is quite likely that it was manufactured using U.S. wheat. An American farmer sells the wheat for dollars. But the Japanese consumer buys the bread with yen.

Somewhere between these two endpoints in the marketing system a "middleman" (probably in Japan) purchased dollars on Tokyo's financial markets. Those dollars were used to pay the American exporters in dollars rather than yen. Therefore, the Japanese importer executes two transactions to make one purchase: (1) the importer purchases dollars with his available yen, and (2) he purchases U.S. wheat with the dollars.

The whole process is like the video arcades that were popular a few years ago in the U.S. The customer enters the arcade and uses dollars to obtain tokens. Some less popular games can be played with a single token; while Pac-man may require 3 or 4 tokens. From the player's perspective, the price of playing increases if either the number of tokens per play increases, or if the dollar price of each token increases. In either case, the dollar cost per play increases.

For the Japanese importer of American wheat the same relationship holds. The Japanese think of the price of wheat in terms of yen per bushel—how many yen does it take to acquire a bushel of wheat. From the Japanese perspective, the yen price of wheat increases if either the yen price of the dollar increases, or if the dollar price of wheat increases.

The Market For Dollars

In the highly integrated system of financial markets that exists today, there is quite literally a global market for dollars. This market is similar to the global market that exists for soybeans or gold. The price of each farm commodity and each financial commodity, such as dollars, fluctuates daily as the forces of supply and demand interact to determine the current market price. While the supply and demand forces affecting the global soybean market are rather straightforward, the forces that affect the price of the dollar on world markets are more obscure.

Demand for Dollars

A demand for dollars on world markets is created whenever a foreigner wants to buy something from the United States. The demand arises because Americans usually insist on payment in dollars for American goods and services. The things that foreigners buy from the U.S. can be divided into two broad categories: merchandise, such as soybean meal, and financial instruments, such as stocks and bonds.

Merchandise trade is relatively easy to understand. If a cattle feeder in Japan needs soybean meal, his demand for soybean meal in turn creates a demand for dollars to be used to obtain that soybean meal. Again, one purchase involves two transactions—one on the foreign exchange markets and one on the commodity markets.

International trade in financial instruments is more difficult to understand. The key to understanding it is to realize that we are living in a truly global community in which investors buy and sell financial instruments in different countries, always seeking the best deal.

Think about a Japanese investor with one million yen to invest. One alternative is to invest it with a Japanese bank that is paying 10% interest. At the end of a year the investor will obviously have 1.1 million yen.

If the Japanese investor decides instead to invest it in an American bank

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that is paying 10% interest, what will he have at the end of one year? The answer depends on what happens to the price of the dollar during the year.

For example, suppose that at the beginning of the year the price of the dollar in Tokyo is 200 yen per dollar. That means that the Japanese investor's one million yen will purchase $5,000. If this is invested at 10% in an American bank he will have $5,500 at the end of the year.

If the price of the dollar in terms of yen has increased from 200 yen per dollar to 250 yen per dollar, the investor will have 1,375,000 yen [$5,500 x 250 yen/$] at the end of the year. So in this case, even though the American bank pays only 10% interest, the investor earns a total return of 37.5% on his yen investment because of exchange rate fluctuations.

Clearly, the second reason foreigners demand dollars on world financial markets is to invest in the United States. They make these investments by buying U.S. dollar denominated stocks, bonds, deposits, and other financial instruments. Some foreigners prefer real estate to financial instruments; so they buy dollars on foreign exchange markets to buy condos in Miami or farmland in Illinois. In each case the demand for investments in the U.S. creates a demand for dollars on world financial markets.

The Supply of Dollars

The supply of dollars on world financial markets is the mirror image of demand. The supply of dollars originates from Americans' desires to acquire products and financial instruments from foreigners. Again, it is important to distinguish between merchandise trade and financial instruments.

Americans supply dollars on world financial markets whenever they buy foreign products. Rest assured that the fellow who puts shock absorbers on Mercedes Benz cars insists on being paid in German marks even if the car is eventually paid for in U.S. dollars. Again, the one purchase requires two transactions. The American must buy marks (i.e., supply dollars) and then use the marks to buy the Mercedes. Note that at the same time the American demands marks on foreign exchange markets he supplies dollars to the same market.

Purchases by Americans of foreign financial instruments also create a supply of dollars on world financial markets. Today many astute American investors see Brazil as the next boom economy.

Therefore American investors are purchasing Brazilian stock on the Rio stock market. In order to make this investment they must sell dollars to buy cruzados. The cruzados are then used to buy stock of Brazilian firms.

Foreign Exchange Rates

The price of the dollar in Japan is determined like any other commodity price—on the basis of supply and demand. On any given day numerous U.S. importers want to sell dollars and buy yen. At the same time Japanese importers want to sell yen and buy dollars.

The yen price of the dollar (or the dollar price of the yen, if you prefer) adjusts to clear the market. These exchange rates fluctuate around the world and around the clock. Any major world event can cause dramatic changes in exchange rates as traders perceptions of risk and uncertainty change. The analogies to the vagaries of agricultural commodity markets should be obvious.

Whither The Dollar: 1980-86

From 1980 to 1985 the average price of the dollar expressed in other currencies rose about 60%. Since then the price of the dollar has fallen by about 30%. The reasons for these fluctuations are several (see the centerfold in the Premiere issue of CHOICES).

Rather than dealing with the causes of these fluctuations, let's take a look at the consequences of them.

To do that we return to the paradox that began this article—grain purchases by foreigners have dropped even though the "law" of demand says that as U.S. farm commodity prices dropped foreign buyers should have bought more of these commodities.

While dollar prices received by American farmers took a nosedive in the early eighties, the dollar was soaring to new heights on foreign exchange markets. The result was that the yen price of American wheat in Japan was rising at the same time the dollar price of wheat in the U.S. was falling. That is, the yen price of the dollar rose more rapidly than the dollar price of the wheat fell. Consequently the price of American wheat for Japanese consumers increased. Therefore, the Japanese bought less.

Without a doubt, the strong dollar on world markets was one of the key elements in the farm recession of the 1980's. Conversely, a weak or falling dollar was one of the main factors in the farm boom of the 1970's. In fact, during the past decade the fate of U.S. farmers has been more closely tied to the fate of the dollar (i.e., to exchange rates) than to weather or government programs.

It remains to be seen if the recent downward trend of the dollar will continue. I expect that it will for the next couple of years. If so, the consumer in Japan will see the yen price of bread, vegetables, fruits and other U.S. products declining and will therefore buy more of these products.

This is particularly advantageous for the American farmer because the yen price of wheat can fall without the dollar price of wheat falling. In this case both the Japanese consumer and the American producer will benefit.

Are there any losers?

It may sound as if nearly everybody benefits from a falling dollar, but nothing could be further from the truth. As the yen price of the dollar falls, the dollar price of the yen rises. That makes imported Japanese cars, stereos and VCRs more expensive for American consumers in terms of dollars. So what's good for the American farmer is bad for the typical American consumer.

The language of foreign exchange rates is fraught with a phraseology that frequently leads to misconceptions. For instance, we would certainly conclude that a "weak dollar" must be bad for the economy and that a "strong dollar" is good. Not so! Is a strong wind good and a weak wind bad?

A strong dollar was one of the principle factors leading to the recession in the early part of the 1980's. A strong dollar has hurt the U.S. automobile industry and countless other industries, not the least of which is agriculture.

A weak or falling dollar may sound bad on the Fourth of July, but it will sure look good on harvest day. C