

## INTERNATIONAL EXCHANGE RATES: WHAT EFFECT DO THEY REALLY HAVE<sup>1</sup>

The increasing strength of the dollar in the last three years has had considerable impact on the ability of the U.S. to compete in international markets. With the increased focus of the apple industry on international marketing it is useful to consider what the international exchange rate does to the prices of our fruit. It is well known that price, income, population, tastes and preferences all affect the amount of fruit consumed by any given individual. Exchange rates, which are very important to international markets, can play a very key role in the amount of imported fruit consumed by foreign users. The exchange rate is the amount of another country's currency that can be purchased by one U.S. dollar.

The most direct impact of the exchange rate is on the price of U.S. goods to the consumers in other countries. The British Columbia market is a good example. If the exchange rate between the Canadian dollar and the U.S. dollar was 1.25, it would take \$1.25 Canadian to buy one dollar's worth of our apples. If that exchange rate were to jump to \$2 Canadian to \$1 U.S. then it would take \$2 Canadian to buy one dollar's worth of our apples.

Over the past several years the exchange rate between the U.S. dollar and the currencies of a number of countries has changed. This, in addition to crop size and the local price, has affected the amount of fruit sold in the export market. The 1980 crop had a surprisingly high percentage of its fruit shipped to other countries; yet in the years

since, that percentage has dropped. The arguments used to explain the drop in movement have included the shift in the exchange rate and higher prices. Higher prices locally certainly translate into higher prices any place else. The changing exchange rate also translates into changing prices elsewhere.

Table 1 shows the percent change in local currencies between 1979 and 1982 relative to the U.S. dollar. The countries selected here represent some of Washington's major markets as well as some of our major competitors.

Table 1. Percent change in local currencies between 1979 and 1982 relative to the U.S. dollar.

<i>Importers</i>	<i>Percent Change<sup>a</sup></i>
Venezuela	0
Columbia	51
Saudi Arabia	2
Egypt	0
Singapore	(1)
Malaysia	7
Indonesia	6
Taiwan	8
United Kingdom	21
Norway	27
Finland	24
Sweden	46
Canada	5
<i>Exporters</i>	
France	55
Chile	37
New Zealand	36
Union of South Africa	(22)

<sup>a</sup> Numbers in parentheses mean that the local currency has increased in value relative to the U.S. dollar; i.e., it took more U.S. dollars to buy a unit of that country's currency in 1982 than it did in 1979.

<sup>1</sup> Article written for the Good Fruit Grower.

A positive number indicates that it took more of the local currency in 1982 to buy one U.S. dollar than it did in 1979. For example, the value of the Columbia Bolivar dropped 51 percent. On the other hand, Venezuelan and Egyptian currencies have not changed in relative value. Singapore and Union of South Africa currencies have strengthened relative to the U.S. dollar. It took fewer Singapore dollars to buy one U.S. dollar in 1982 than it did in 1979.

Note that some of the major markets, for example Taiwan, have not had a dramatic change in the relationship between the U.S. dollar and the Taiwanese dollar, whereas other areas such as the United Kingdom suffered a 21 percent decline in the purchasing power of the English pound relative to the U.S. dollar. The Canadian dollar has only declined 5 percent.

On the export side we see that three of the exporters listed have had significant declines in the value of their currency relative to the U.S. dollar. France's decline has been most dramatic. It now takes 55 percent more francs to buy a U.S. dollar than it did in 1979.

The impact of all this is twofold. First, it took more local money for an importing country to buy fruit from the U.S. in 1982 than it did in 1979. Only 3 of the 13 importing countries listed have not lost their relative positions of 1979. Those countries are Egypt, Venezuela, and Singapore. The other 10 countries' currencies have lost relative to the U.S. dollar. The value of fruit shipped to those 10 countries has increased in price because of the exchange rate. This is in addition to crop size and quality.

The second impact comes from the changing value of the currencies of our major competitors. Fruit exported from France, Chile, and New Zealand was less expensive to importers in 1982 than it was in 1979 just because of changing exchange rates.

So far we have talked about relative changes. What does that really mean in terms of

buying power? Table 2 tries to show that relationship.

Assume that a box of fruit could be bought from any of the exporters with the amount of importer currency shown in the left-hand column. These figures represent the 1979 cost of that box of fruit at the point of export. For Washington that could be Seattle. The rest of the columns show the 1982 cost of that same box of fruit from the exporting countries adjusted only for the change in the exchange rates. (We have assumed that the cost of the fruit was U.S. \$20 in both 1979 and 1982.) All of the cost figures are in terms of the currency of the importing country.

Looking at Venezuela first, we see that the price of the U.S. fruit between 1979 and 1982 did not change. We see, however, that the price of French fruit had declined by 30 Bolivars. The cost of French fruit to Venezuelans dropped by 35 percent. Chilean fruit in 1982 cost 25 percent less in Venezuela than it did in 1979. On the other hand, the cost of fruit from the Union of South Africa increased over 25 percent so that South African fruit was much more expensive in 1982 than it was in 1979. The Union of South Africa was in a poorer competitive position.

Think of these prices as being the cost of getting the fruit to a point of export like Seattle. The difference in the cost of fruit from various exporting countries has major implications for the geographic extent of the international market for each of those countries. U.S. fruit sold to Taiwan now costs NT \$60 more than it did in 1979 because of the exchange rate. (Remember we are still using a \$20 F.O.B. price.) On the other hand, the value of French fruit in Taiwanese dollars has declined by NT \$215. That NT \$215 will pay a substantial amount of transportation costs which, in effect, increases the distance French fruit can be shipped and still be competitive with U.S. fruit. A similar case can be made for fruit from New Zealand. There is NT \$206 difference in the cost of New Zealand fruit vs. U.S. fruit. Taiwan is much

Table 2. The amount of local currency needed to buy one box of fruit in 1979 and 1982.<sup>b</sup>

<i>Importers</i>						
	1979 Value	U.S.	France	New Zealand	Chile	Union of S. Africa
1982 Values						
Venezuela (Bolivars)	85.80	85.80	55.54	63.07	62.77	109.98
Saudi Arabia (Riyals)	67.22	68.54	44.38	50.39	50.15	88.25
Taiwan (NT\$)	720.00	780.00	504.91	573.86	570.66	1,004.08
United Kingdom (pound)	9.42	11.42	7.39	8.39	8.35	14.70
Canada (Can. \$)	23.42	24.68	15.97	18.18	18.05	31.75

<sup>b</sup> Based on an F.O.B. price of \$20 in 1979.

closer to New Zealand, which means that New Zealand fruit is in a much stronger competitive position, price wise, in 1982 than it was in 1979.

A similar situation arises in the United Kingdom. The price of our fruit there, because of the exchange rate, has increased by 2 British pounds. The cost of French fruit in the United Kingdom has declined by 2 pounds so that there is a 4 pound difference between the value of U.S. fruit and the value of French fruit in Great Britain. It's remarkable that we've been able to continue to sell fruit in our foreign markets, particularly after recognizing the impact that the exchange rate has on the cost of fruit to the buying country.

There is no question that the variety of fruit, the color of fruit and other quality factors, as well as price play a key role in export sales. The Taiwanese may prefer our fruit because of its color and shape and this may give us a very strong competitive advantage in their market, but, the fact remains that changing exchange rates do influence the volume of fruit and in some cases where the fruit is purchased.

When markets are expanding, it is difficult to document the impact of exchange rates but it is possible to estimate what growth might have been without the changes in exchange rates. Saudi Arabia is a good example of

sales lost because of changing exchange rates.

The combined effect of declining value of the French franc and the increasing value of the U.S. dollar relative to the Saudi Riyal between 1979 and 1982 resulted in a 34 percent decline in the price of French fruit while U.S. fruit prices increased 2 percent. The cost of French fruit declined from 67.22 Riyals to 44.38 Riyals. During that same period, U.S. fruit increased from 67.22 to 68.54 Riyals. In effect, by 1982, Washington fruit was 54 percent more expensive than French fruit in 1982, just because of the changing values of the currencies.

Fruit movement from the U.S. to Saudi Arabia between the years 1979 and 1982 actually increased about 15 percent, in spite of the exchange rate problems. Crop size, fruit quality, promotion efforts and Saudi fruit preferences were all important factors in offsetting the impact of the increasing value of the dollar.

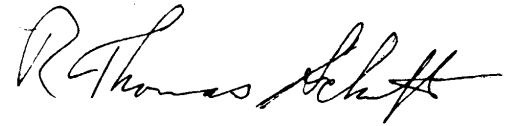
Studies in international trade usually show that, when the price of a commodity increases 1 percent, quantity sold to buyers in other countries declines by more than 1 percent. The net result is a decline in total sales.

If the international trade research results are applicable to apples, then sales of apples to

Saudi Arabia may have been reduced as much as 900,000 packs in 1982 because of the strong dollar and the weak franc.

After reviewing these data it should be obvious that Washington's apple marketers have indeed done a remarkable job in maintaining a significant level of movement overseas. Growth in the relative value of the U.S. dollar has placed us at an increasingly disadvantaged position relative to our major competitors, yet we continue to move a significant amount of fruit overseas. In light

of the current exchange rate situation, it seems reasonable to expect a fairly positive response in exports if the U.S. dollar assumes a weaker, but more normal, position among the world's currencies.

A handwritten signature in black ink, appearing to read "R. Thomas Schotzko". The signature is fluid and cursive, with a long horizontal stroke at the end.

— R. Thomas Schotzko  
Extension Economist