

# Investment In Agriculture and Food Processing

## Introduction

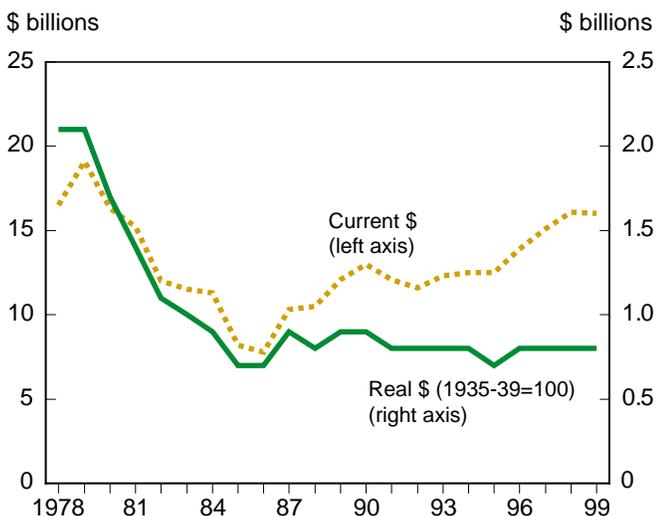
Prior to the implementation of NAFTA, there was some concern about the agreement's potential impact on agricultural investment. Some people thought that investment in U.S. agriculture might decline because of the agreement, especially if capital flowed to Canada and Mexico instead of the United States.

This scenario is not borne out by the available data. Between 1993 and 1999, nominal capital expenditures in U.S. agriculture increased from \$12.5 billion to \$16.0 billion (fig. D-1). In real terms, annual farm capital expenditures climbed steadily between 1995 and 1998, before declining slightly in 1999.

In addition, food-processing companies in each NAFTA country viewed the agreement as an excellent opportunity to increase their foreign direct investment (FDI) in the other NAFTA countries. In 1998, sales of U.S. food industry affiliates exceeded \$14 billion in Canada and \$12 billion in Mexico, easily surpassing the value of U.S. processed food exports to those countries (\$5.1 billion to Canada and \$2.8 billion to Mexico).

Figure D-1

### Farm business capital expenditures, 1978-99



Source: Economic Research Service, USDA.

## U.S. Farm and Food Processing Investment

### Farm Capital Expenditures

It is difficult to assign capital expenditures to pre- and post-NAFTA eras. Negotiations for the agreement were underway in 1991. The accord was approved in 1993 and became effective January 1, 1994. Thus, many investment decisions were made well before the adoption of NAFTA, as farmers and other investors appraised the potential effects of the agreement as it was being negotiated.

Farmers may have taken a second look at their capital investment decisions as they discovered that the effects of NAFTA were more favorable than some had anticipated. In 1994, farm capital expenditures (as defined by ERS) increased slightly in nominal terms but decreased in real terms. In 1999, these expenditures exceeded their level in 1993, in both real and nominal terms.

Farm capital expenditures in several regions of the country rebounded in 1999, even though the total for the United States decreased slightly (table D-1). Between 1994 and 1999, capital expenditures in the Southern Plains experienced the greatest proportionate increase (58 percent), followed by the Pacific States (50 percent). Capital expenditures in the Corn Belt underwent the smallest increase (10 percent).

In the States bordering Mexico, some producers initially thought that they might lose markets due to NAFTA. Fruit and vegetable growers in Florida and the Pacific States, particularly California, feared that competition from Mexico would lower their economic returns. However, export opportunities in the NAFTA countries were more robust than anticipated. In this context, capital expenditures in the Southeast and the Pacific regions fluctuated during 1994-99, with the Pacific States experiencing a surge in expenditures in 1999. In the Northeast, where the agricultural and food sectors have become increasingly integrated with their Canadian counterparts, capital expenditures generally increased in the first half of the 1990's, held fairly steady during 1996-98, and then increased sharply in 1999.

**Table D-1—Capital expenditures in U.S. agriculture, 1991-99**

Year	Total	Northeast	Lake	Corn Belt	Northern Plains	Appalachia	Southeast Plains	Delta	Southern	Mountain	Pacific
<i>Million dollars</i>											
1991	13,140	970	1,644	2,920	1,451	1,219	691	735	1,224	906	1,377
1992	12,616	929	1,826	2,636	1,412	1,292	755	659	1,159	791	1,154
1993	13,868	963	1,846	2,975	1,653	1,308	858	790	1,323	944	1,303
1994	13,880	930	1,910	2,986	1,613	1,224	871	727	1,193	1,061	1,361
1995	13,776	1,050	1,782	2,891	1,621	1,512	1,014	694	1,396	1,230	1,525
1996	15,196	1,174	1,960	2,915	1,864	1,625	957	770	1,233	1,213	1,481
1997	16,244	1,134	2,113	3,209	1,959	1,590	1,043	820	1,469	1,278	1,627
1998	17,956	1,130	1,970	3,098	1,498	1,332	752	664	1,025	1,038	1,445
1999	17,932	1,265	2,328	3,307	1,908	1,683	1,223	866	1,888	1,417	2,043

Source: Compiled from ERS information. Data exclude dwellings.

### Capital Stock in U.S. Agriculture and Food Processing

In nominal terms, the capital stock in U.S. agriculture (defined as fixed reproducible tangible wealth) increased gradually over the 1993-98 period and then declined slightly in 1999 (fig. D-2). This upturn follows a period of relative stability in the capital stock's nominal value that dates back to the late 1980's. NAFTA, together with transition payments under the Federal Agriculture Improvement and Reform Act of 1996, may have sustained this period of stability.

In real terms, the capital stock in U.S. farms has decreased slowly since the implementation of NAFTA, continuing a trend that dates back to 1980. This means that much capital stock, such as farm equipment and

farm buildings, has not been fully replaced. There are many reasons for this, including the consolidation of farms and the more efficient use of machinery and equipment, resulting in economies of scale.

In contrast, investment in food processing has grown in both nominal and real terms since NAFTA's implementation. The U.S. food and beverage industry increased its capital stock in real terms by nearly 9 percent from 1993 to 1999. Fixed private capital investment in the total U.S. economy grew by nearly 16 percent during this period, compared to a 4-percent increase in agriculture (U.S. Department of Commerce, Bureau of Economic Analysis).

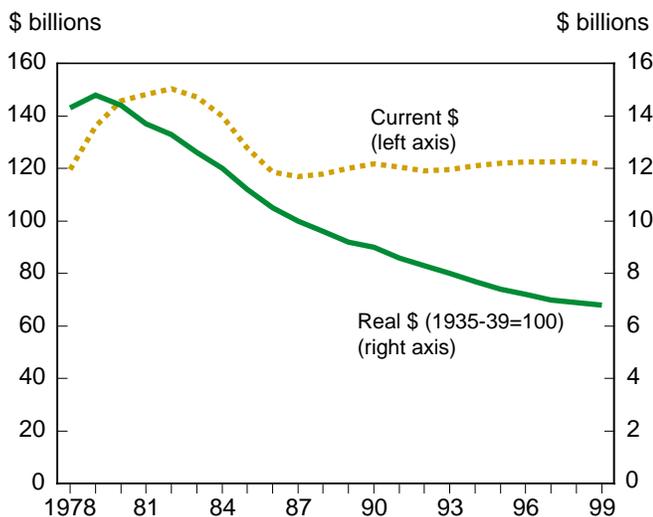
### NAFTA and Foreign Direct Investment

An important element of NAFTA that is often overlooked is the agreement's rules concerning FDI. These rules generally strengthen the rights of foreign investors to retain profits and returns from their initial investments. They also guarantee equal treatment to foreign and domestic investors alike under the laws of each NAFTA country and prohibit new laws that would change the status of foreign investments, once they are established.

This combination of trade liberalization and investment reform has stimulated FDI in the North American food processing industry, with firms in each NAFTA country providing substantial investment capital. For producers, FDI has meant greater dissemination of new technology and gains in efficiency. For consumers, it has meant lower food costs, expanded choices in food and beverages, and greater uniformity in food quality. Other benefits include an increase in employment attributable to U.S. affiliates in Mexico

Figure D-2

#### Total capital stock in U.S. agriculture, excluding operator dwellings, 1978-99



Source: Economic Research Service, USDA.

and Canada, as well as to Mexican and Canadian affiliates in the United States, and increased earnings from U.S. investments abroad.

### ***U.S. FDI in Mexico's Processed Food Industry***

U.S. FDI in Mexico's processed food industry increased from \$2.3 billion in 1993 to \$5.3 billion in 1999. The largest amount of new money in recent years occurred in 1997, although new direct investment continued to flow into Mexico in 1998 and 1999. In addition, funds from affiliates in Mexico were reinvested, but at a lower rate than the high point of 1996. These positive trends began in the late 1980's, when the Mexican government changed many of its rules governing FDI. The enactment of NAFTA further increased investor confidence in Mexico, creating a synergy between investment and trade. Mexico is now the second largest host country (after the United Kingdom) for U.S. FDI in processed foods and beverages.

Nearly three-fourths of U.S. FDI in Mexico's processed food industry is concentrated in highly processed products. Examples include mayonnaise and salad dressing, concentrates and flavorings, confectionery products, pasta and related products, and canned and frozen meats. Only 5 percent is in processed fruits and vegetables. Another 15 percent is in beverages, and about one-tenth is in grain milling or bakery products (Secretaría de Comercio y Fomento Industrial, 1997).

### ***U.S. FDI in Canada's Processed Food Industry***

Between 1989 and 1999, U.S. FDI in Canada's \$40-billion processed food industry expanded from \$1.8 billion to \$5.0 billion. In 1999, some U.S. companies disinvested in Canadian firms, and a smaller amount of earnings were reinvested. This marks the slowing of a trend that began prior to the Canada-U.S. Free Trade Agreement (CFTA) and reflects the heightened integration of the U.S. and Canadian food processing sectors. Canada is the third largest host country for U.S. FDI in processed foods. Total FDI in Canada's food and agricultural sectors equaled \$20.5 billion in 1999, with most of the investment coming from the United States, the United Kingdom, and Australia (Statistics Canada, 2000).

There are many specific examples of U.S. FDI in the Canadian agriculture and food processing. Cargill was

the first U.S. firm to have grain-handling assets in Canada. ConAgra has built new elevators throughout the Canadian prairies, and Archer-Daniels-Midland (ADM) has forged a strategic alliance with United Grain Growers (UGG), with options for procurement. New facilities also have been built to handle increased cross-border trade. Joint ventures between the Saskatchewan Wheat Pool (SWP) and General Mills in Sweetgrass, Montana, and Northgate, North Dakota, are facilitating trade in both directions. U.S. firms also have acquired major Canadian grain-processing firms. A joint venture also was formed between Schrier and Prairie Malt (Cargill). The U.S. firm Rahr has a plant in Alix, Alberta, and ConAgra recently acquired Canada Malt, the largest malting company in Canada. In addition, two of the largest U.S. flour-milling firms, ADM and ConAgra, are major participants in Canada's flour industry.

### ***Mexican FDI in the U.S. Processed Food Industry***

Mexican firms also have increased their investments in U.S. food companies. In 1999, Mexican FDI in the U.S. processed food and beverage industry equaled \$1.0 billion. As recently as 1997, this total was just \$304 million. Large companies based in Mexico own a variety of U.S. enterprises engaged in food processing. GIBSA, one of Mexico's largest bread making companies, is a leading investor in U.S. bread-baking companies. Other examples include Gruma (a major tortilla maker), Minsa (a large corn milling company), and DESC (a maker of Mexican-style food products).

### ***Canadian FDI in the U.S. Processed Food Industry***

In contrast, Canada's presence in the U.S. processed food industry declined to \$610 million in 1999, as the Bronfman family (Seagram's) liquidated its industry assets. This is a sharp departure from the first several years of NAFTA, as Canadian FDI in the U.S. processed food industry grew without interruption from \$5.1 billion in 1993 to \$7.6 billion in 1997, exceeding the U.S. presence in Canada.

The recent decline in Canadian FDI in the U.S. processed food industry coincides with lower FDI from all countries in the U.S. processed food industry. Factors contributing to this overall decline include the strong U.S. dollar and the relative maturity of the U.S. food processing sector. However, there are examples that run counter to this trend. In 2001, George Weston,

Ltd., a Toronto baking and food retailing company, acquired Best Foods Brand baking products in the United States, an acquisition costing \$1.7 billion.

## Recent ERS Research about FDI

ERS has completed several studies about the basis for U.S. FDI in the Canadian and Mexican processed food industries, as well as the general relationship between trade and FDI. Whether FDI complements or substitutes for trade is crucial to whether FDI is viewed as beneficial to U.S. agriculture and food processing.

Gopinath, Pick, and Vasavada (1999) study the determinants of exports and FDI by the U.S. processed food industry with respect to 10 developed countries (Australia, Belgium, Canada, France, Germany, Japan, the Netherlands, Italy, Spain, and the United Kingdom) during 1982-94. The authors find a small but negative relationship between export price and the sales of foreign affiliates in the U.S. processed food industry, which suggests that exports and FDI are weak substitutes. In addition, the authors offer evidence that the U.S. food processing industry uses FDI as a means to “jump” the protectionist policies of other countries.

Bolling and Somwaru (2000) evaluate the impact of various factors on the presence or absence of FDI in the 43 sub-sectors of the Canadian and Mexican processed food industries. Industry size, as measured by industry sales, is found to be the principal determinant for U.S. firms choosing one sub-sector over another for FDI in both Canada and Mexico. U.S. exports and industry concentration also are significant determinants. U.S. exports to Mexico are negatively related to U.S. FDI in the Mexican processed food industry, indicating a competitive relationship. In the Canadian case, the relationship between exports and FDI is positive but statistically insignificant. These differing results may reflect the fact that the Canadian and U.S. economies are more closely intertwined than the Mexican and U.S. economies. They also may be due to the type of products traded between the United States and the two host countries.

Bolling and Somwaru's model correctly predicts the presence of U.S. FDI in Canada's meat packing, evaporated and dried milk, canned fruits and vegetables, chocolate and cocoa, bottled and canned soft drinks, and prepared fresh and frozen fish industries. For Mexico, the model was able to predict the presence of

U.S. FDI in sausage and preparations, evaporated and dried milk, frozen fruits and vegetables, prepared feeds, bread and bakery products, soybean oil, malt beverages, bottled and canned soft drinks, and macaroni and noodles. The authors conclude that FDI prevails only in certain sub-sectors, which can be explained reasonably well by the above mentioned trade and industry characteristics.

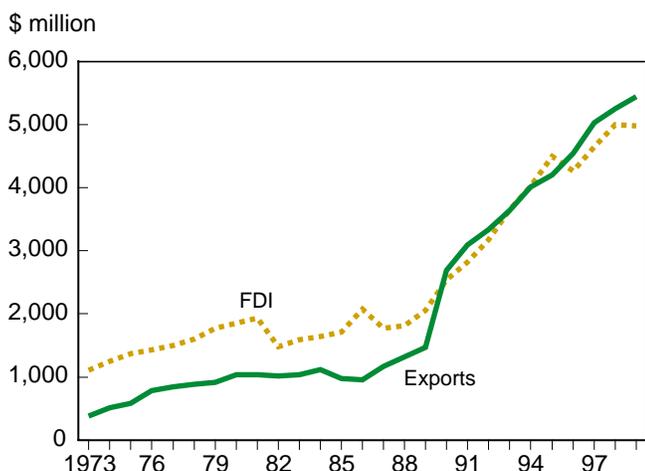
Bolling, Neff, and Handy (1998) find that U.S. FDI in the processed food industries of the Western Hemisphere countries generally complements U.S. exports. Most product sales from these investments stay in the host country, rather than being re-exported to the United States. This is particularly true in the case of Mexico. Regional trade agreements, such as NAFTA and MERCOSUR (the Southern Common Market), and liberalized rules concerning foreign investment have encouraged investors in the processed food industry.

In an analysis of annual data for 1973-99, Jerardo (2001) determines that exports and FDI in the processed food industry have a quantifiable relationship. Preliminary estimates suggest that a \$1-billion increase in U.S. processed food exports to Canada is accompanied by an additional \$749 million of U.S. FDI in Canada's processed food industry. In the case of Mexico, FDI may be used to predict exports, although the statistical evidence is somewhat weaker. The estimates suggest that a \$1-billion rise in U.S. FDI in the Mexican processed food industry is joined by \$114 million in additional U.S. processed food exports to Mexico.

Jerardo also identifies several new patterns in exports and FDI since the implementation of CFTA and NAFTA. Before CFTA, the U.S. processed food industry preferred by large margins to invest directly in Canada (fig. D-3). Following CFTA's implementation in 1989, U.S. processed food exports to Canada began to accelerate, and soon, these exports began to parallel U.S. FDI in Canada's processed food industry. With respect to Mexico, FDI and exports closely tracked each other before NAFTA, with exports usually exceeding investments (fig. D-4). Starting in 1988, FDI and exports substantially increased. After NAFTA's implementation in 1994, U.S. FDI continued its sharp upward trend, leaving exports behind, especially in the wake of the peso devaluation in December 1994.

Figure D-3

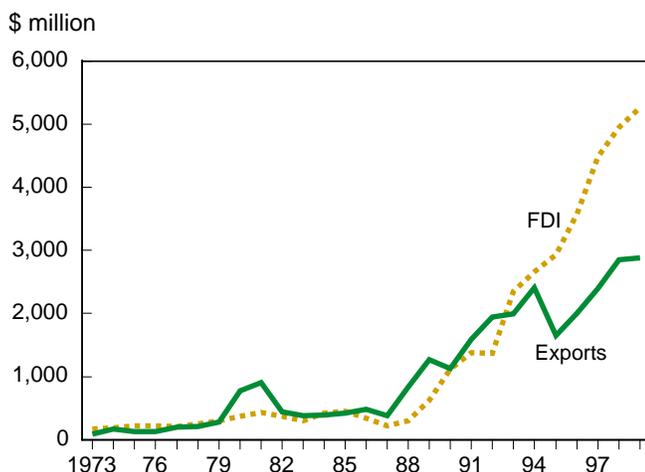
**U.S. foreign direct investment (FDI) in the Canadian processed food industry and U.S. processed food exports to Canada, 1973-99**



Sources: For U.S. direct investment in food and kindred products, based on historical cost, U.S. Department of Commerce, Bureau of Economic Analysis; for U.S. exports of processed food (SIC 20), Foreign Agricultural Trade of the United States database.

Figure D-4

**U.S. foreign direct investment (FDI) in the Mexican processed food industry and U.S. processed food exports to Mexico, 1973-99**



Sources: For U.S. direct investment in food and kindred products, based on historical cost, U.S. Department of Commerce, Bureau of Economic Analysis; for U.S. exports of processed food (SIC 20), Foreign Agricultural Trade of the United States database.

## Conclusion

NAFTA has coincided with rising capital expenditures in the U.S. farm economy through 1999. The increased capital expenditures in production are somewhat striking, given that agricultural capital expenditures are slow to adjust to changing economic conditions and that commodity prices have been relatively low. Econometric studies demonstrate that NAFTA has fostered a positive synergy between trade and FDI in the North American processed food industry. As a result, U.S. exports and U.S. FDI have grown together. This combination is one of NAFTA's success stories.

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