
NORTH AMERICAN AGRICULTURAL TRADE DURING 1975-98: A BACKGROUND PAPER ON TRADE FLOWS

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INTRODUCTION

Agricultural trade within North America and between North America and the rest of the world experienced many changes during the last quarter of the 20th Century. Some of these changes are due to the North American Free Trade Agreement (NAFTA), which was put into action on January 1, 1994 by the governments of Canada, Mexico, and the United States, and its predecessor, the Canada-U.S. Free Trade Agreement (CUSFTA), implemented on January 1, 1989.

This background paper offers a broad profile of North American agricultural trade during 1975-98, with special emphasis on developments that took place following the implementation of CUSFTA and NAFTA. The year 1975 is selected as the beginning of the period examined in order to provide a more complete picture of Canada-U.S. trade before CUSFTA and to take full account of the changes in Mexican trade that accompanied that country's economic restructuring, beginning in the mid-1980s.

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With the exception of U.S. agricultural exports to Canada, this paper utilizes trade data from the International Bilateral Agricultural Trade (IBAT) Database. The IBAT Database is a synthesis of trade statistics reported by member countries to the United Nations. With access to literally a world of trade data, the IBAT database reflects the implementation of a decision rule to select a single set of figures from each pair of reporting countries. Given trade statistics of two reporting countries for a particular year, the IBAT Database includes the figures from the reporting country with the larger share of reported trade that matches the reported trade of its trading partners. This evaluation is performed at the 4- and 5-digit SITC level.

However, an evaluation of U.S. agricultural exports to Canada before and after the implementation of CUSFTA is complicated by a reform in the preparation of Canada-U.S. trade statistics. Starting in January 1990, the governments of Canada and the United States began to officially exchange their bilateral trade statistics. U.S. statistics are used to measure Canadian agricultural exports to the United States, while Canadian statistics are used to measure U.S. agricultural exports to Canada². Thus, it is possible that the data collected since 1990 are not strictly comparable to pre-1990 data. Although the IBAT Database's time series for Canadian agricultural exports to the United States does not seem to reflect an unusual change in 1990, the same cannot be said for U.S. agricultural exports to Canada. According to the IBAT Database, this time series appears to undergo an almost parallel shift in 1990, with a one-year increase in trade of 51 percent. For this reason, we rely entirely on the statistics reported by Canada to describe U.S. agricultural exports to Canada.

This paper is divided into three parts. The first part describes agricultural trade at the aggregate level among the three NAFTA countries and between these countries and the rest of the world. All trade figures in this paper are expressed in U.S. dollars. The second part examines bilateral agricultural trade among the NAFTA countries in greater detail. The IBAT database divides agricultural trade into four broad categories: bulk commodities, processed

²See U.S. Department of Agriculture, Economic Research Service, "Outlook for U.S. Exports," May 30, 1990, p.7.

intermediates, produce and horticultural products, and high-value processed products.³

AN AGGREGATE PERSPECTIVE

Agricultural trade among the three NAFTA countries has continued to expand since the implementation of CUSFTA and NAFTA. Within the NAFTA region, agricultural exports have increased from an annual average of (U.S.) \$8.4 billion during 1984-88 (the last 5 years before CUSFTA) to \$22.7 billion during 1994-98 (the first 5 years of NAFTA). Obviously, this general increase is partially due to factors other than the two trade agreements, including population growth and economic expansion in each NAFTA country. Thus, one important question regarding the two accords is the extent to which they have affected the growth and direction of agricultural trade in North America.

This section presents aggregate trade statistics for the three NAFTA countries during 1975-98, emphasizing changes that took place following the implementation of CUSFTA and NAFTA. It also identifies several possible turning points in North American agricultural trade during this time period. As we shall see, many of the apparent turning points do not neatly coincide with the implementation of either trade agreement. Finally, the section examines changes in the NAFTA countries' share of North American agricultural trade.

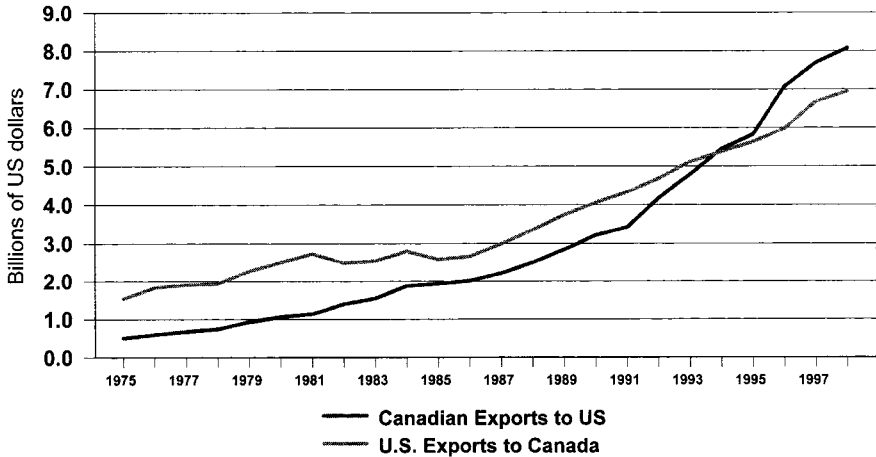
Canada-U.S. Trade

At the aggregate level, Canada-U.S. agricultural trade has expanded without interruption since the implementation of CUSFTA. Between 1988 and 1998, Canada's agricultural exports to the United States increased from \$2.5 billion to \$8.1 billion, while U.S. agricultural exports⁴ to Canada climbed from \$3.4 billion to \$6.9 billion (Appendix Table 1 and Figure 1).

Aggregate trade figures suggest that Canadian agricultural exports to the United States entered a period of more rapid growth, not in 1989 with the implementation of CUSFTA, but instead in 1992. Between 1991 and 1998, these exports grew at a compound annual rate of 13 percent, compared with 9

³A detailed list of the commodities in each category is available from the authors.

⁴The Appendix contains data for North American agricultural imports.

Figure 1: Canada-U.S. Agricultural Trade, 1975-1998.

percent over 1984-91. Years with particularly large annual increases in exports include 1992 (22 percent) and 1996 (21 percent).

Since 1986, U.S. agricultural exports to Canada have experienced successive annual increases. These increases surpassed 10 percent during 1987-89 and in 1997. Overall, U.S. agricultural exports to Canada increased at a faster annual rate (7 percent, compounded) over 1989-98 than over 1980-89 (5 percent, compounded).

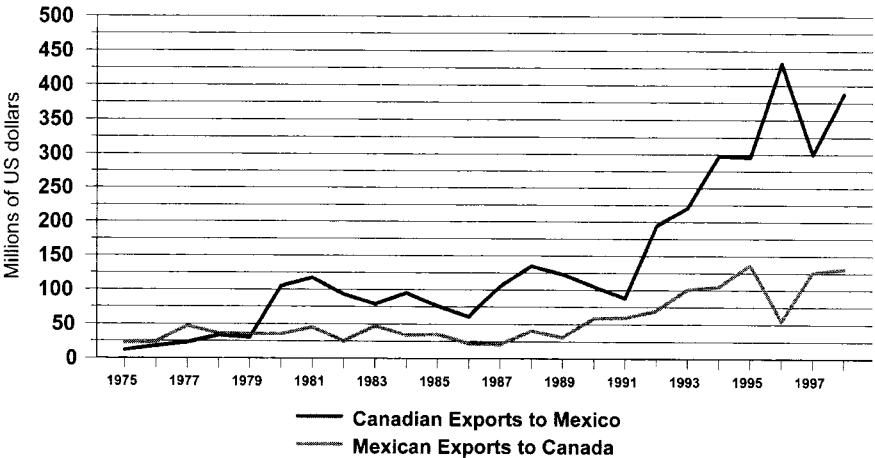
Mexico-U.S. Trade

Mexico-U.S. agricultural trade has continued to expand under NAFTA. Mexican agricultural exports to the United States increased from \$2.7 billion in 1993 to \$4.9 billion in 1998, while U.S. agricultural exports to Mexico grew from \$3.8 billion to \$6.4 billion (Figure 2). This upward trend predates NAFTA by at least several decades. During the 24 years from 1976 to 1998, Mexican agricultural exports to the United States experienced year-to-year decreases in only 8 calendar years: 1980, 1982, 1984, 1987, 1988, 1991, 1992, and 1997. Similarly, U.S. agricultural exports to Mexico have been on the rise in general since 1986, decreasing only in 1990, 1993, 1995, and 1997.

Figure 2: Mexico-U.S. Agricultural Trade, 1975-1998.



Figure 3: Canada-Mexico Agricultural Trade, 1975-1998.



Since 1993, Mexican agricultural exports to the United States have grown at a brisk pace. This trade increased at a compound annual rate of 13 percent between 1992 and 1998, compared with 9 percent between 1975 and 1991. In addition, the pattern exhibited during 1993-98 differs from that of

1986-88 and 1989-92, when exports initially surged and then declined. The growth of U.S. agricultural exports to Mexico appears to be closely linked to the performance of the Mexican economy, as evidenced by the economic crisis of the 1980s and the recession of 1995. The abatement of the former crisis around 1988 seems to mark a turning point in U.S. agricultural exports to Mexico. Between 1987 and 1998, this trade grew at a compound annual rate of 16 percent. In sharp contrast, these exports averaged only \$1.5 billion during 1982-87, compared with an average of \$2.6 billion during the petro-boom of 1980 and 1981 and \$2.3 billion in 1988.

The peso devaluation and recession that accompanied Mexico's financial crisis of late 1994 affected U.S. agricultural exports to Mexico in a similar fashion as the crisis of the 1980s. Between 1994 and 1995, exports dropped from \$4.8 billion to \$3.7 billion. With the recovery of the Mexican economy, this trade rebounded to \$5.7 billion in 1996 and \$5.6 billion in 1997.

Canada-Mexico Trade

Although small relative to Canada-U.S. and Mexico-U.S. flows, trade between Canada and Mexico is an increasingly prominent aspect of North American agricultural trade. Under NAFTA, Canadian agricultural exports to Mexico have increased from \$221 million in 1993 to \$388 million in 1998, while Mexican agricultural exports have expanded from \$101 million to \$131 million (Figure 3).

The year 1990 roughly marks the beginning of more than half a decade of rapid growth in Canada-Mexico agricultural trade. During 1991-96, Canadian agricultural exports to Mexico grew at a compound annual rate of 37 percent, achieving an all-time high of \$432 million in 1996. Similarly, Mexican agricultural exports to Canada expanded at a compound annual rate of 28 percent during 1989-95, reaching a record \$137 million in 1995. Canada-Mexico agricultural trade may have entered a new phase in 1996, as Mexican exports plummeted to \$55 million before rebounding to \$126 million in 1997. In a possibly related development, Canadian agricultural exports to Mexico decreased sharply in 1997 but recovered in 1998.

Trade Shares

As a general rule, agricultural trade among the three NAFTA countries accounts for a larger share of total North American agricultural trade than before NAFTA. With respect to imports, this change is most notable for the United States. Canada and Mexico were the origin of 32 percent of U.S. agricultural imports during 1994-98, compared with 26 percent in 1989-93 and 18 percent in 1984-88 (Appendix Table 2). For Mexico, imports from Canada and the United States increased from 71 percent in 1989-93 to 80 percent during 1994-98. However, imports from Canada and the United States accounted for 78 percent of Mexico's total agricultural imports during 1984-88, thus raising doubts about whether a long-term change in trade share is taking place in Mexico's agricultural imports. Canada also experienced a shift in trade share following the implementation of CUSFTA and NAFTA. The NAFTA countries were the origin of 66 percent of Canadian agricultural imports during 1994-98, up from 64 percent during 1989-93 and 60 percent during 1984-88.

With respect to exports, NAFTA countries are the destination for a larger proportion of total agricultural exports for both Canada and the United States. During 1994-98, Mexico and the United States purchased 53 percent of Canada's agricultural exports, compared with 41 percent during 1989-93 and 30 percent during 1984-88 (Appendix Table 3). For the United States, the NAFTA countries accounted for 20 percent of total agricultural exports during 1994-98, up from 18 percent during 1989-93 and 14 percent during 1984-88. Part of this shift is linked not to NAFTA but instead to the sharp reduction in U.S. and Canadian exports to countries outside NAFTA that coincided with the Asian financial crisis. Between 1996 and 1998, U.S. agricultural exports to the rest of the world fell from \$50.7 billion to \$40.1 billion, while Canadian agricultural exports to countries outside NAFTA declined from \$7.2 billion to \$6.0 billion.

The notable exception to this pattern concerns Mexican agricultural exports. Since the implementation of NAFTA, the combined U.S. and Canadian share of Mexico's total agricultural exports has actually declined, from an average of 83 percent during 1989-93 to 77 percent during 1994-98, which is also comparable to the 1984-88 share of 76 percent. This experience suggests that further economic integration with Canada and the United States has not

prevented Mexico from increasing exports to other countries and may have even supported efforts in this area.

SECTORAL TRADE FLOWS

Canadian Exports to the United States

High-value processed products constitute the largest component of Canadian agricultural exports to the United States (Appendix Table 4). In 1998, this category's exports were valued at \$4.0 billion, accounting for 50 percent for total agricultural exports. The next largest categories are processed intermediates (32 percent of the total) and bulk commodities (10 percent).

Bulk commodities and processed intermediates account for a larger share of Canadian agricultural exports to the United States than they did before CUSFTA. During 1989-98, bulk commodities made up 12 percent of this trade, compared with 8 percent during 1984-88. The share associated with processed intermediates increased from 31 to 36 percent across the same two periods.

Just as 1992 marks a turning point in Canadian agricultural exports to the United States at the aggregate level, it also marks a turning point at the sectoral level (Appendix Table 5 and Figure 4). Exports in each category grew more quickly during 1991-98 than during 1984-91. Produce and horticultural products experienced the strongest export expansion of the four categories during 1991-98, with a compound annual growth rate of 14 percent. The category of bulk commodities was close behind with a rate of 15 percent.

Despite differences in growth rates across categories, each category of Canadian agricultural exports to the United States has participated in the general expansion of trade experienced under CUSFTA and NAFTA. The slowest growing category over 1991-98 was processed intermediates, with a compound annual growth rate of 11 percent. This rate of expansion is just off the 13 percent rate experienced by total agricultural exports.

U.S. Exports to Canada

U.S. agricultural exports to Canada are distributed more evenly across the four categories than Canadian exports to the United States (Appendix Table

Figure 4: Canadian Agricultural Exports to the United States, 1975-1998.

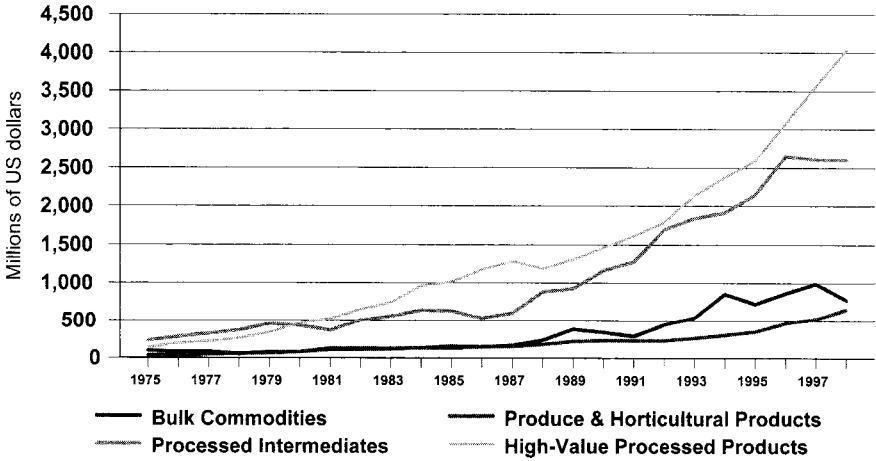
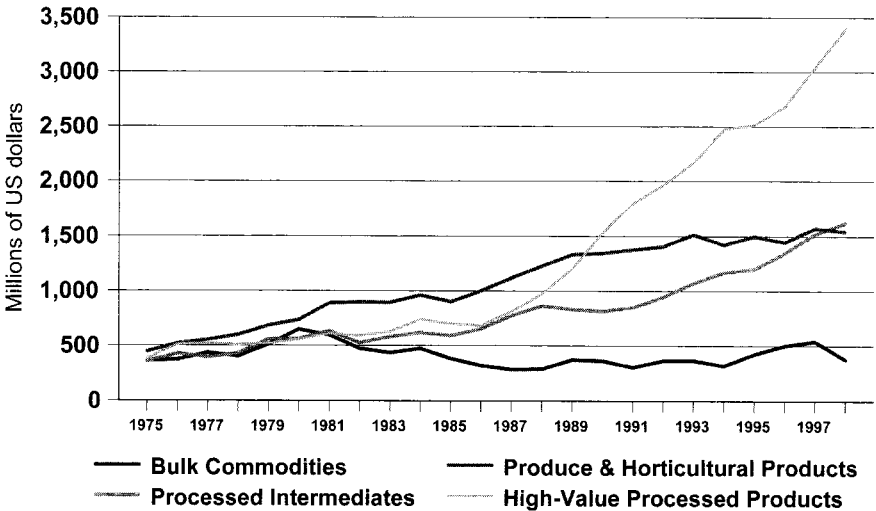


Figure 5: U.S. Agricultural Exports to Canada, 1975-1998.



6). High-value processed products accounted for the largest portion in 1998, with a share of 49 percent. Processed intermediates and produce and horticultural products placed second and third respectively with shares of 23 percent and 22 percent.

Perhaps the most striking development in the composition of U.S. agricultural exports to Canada during the CUSFTA/NAFTA era is the rapid export growth of high-value processed products (Appendix Table 7 and Figure 5). Exports in this category increased at a compound annual rate of 13 percent between 1988 and 1998, compared with 8 percent for total agricultural exports.

Another important development is the limited export growth of bulk commodities. This phenomenon traces its beginnings to the early 1980s, although exports in this category experienced successive years of expansion from 1995 to 1997, before ebbing again in 1998. Bulk-commodity exports reached \$540 million in 1997, their highest level since 1981. In contrast, exports of processed intermediates have expanded without interruption since 1991, after several years of contraction. Between 1990 and 1998, these exports increased from \$817 million to \$1.6 billion.

Mexican Exports to the United States

Of the four categories, produce and horticultural products make up the largest portion of Mexican agricultural exports to the United States (Appendix Table 8). In 1998, this category's exports were valued at \$2.4 billion, accounting for 48 percent of the total. The next largest categories were high-value processed products (32 percent) and bulk commodities (12 percent).

Several noteworthy developments have occurred in Mexican agricultural exports to the United States following the implementation of NAFTA (Appendix Table 9 and Figure 6). First, exports of produce and horticultural products have continued to expand at a brisk pace. Between 1993 and 1998, this trade increased from \$1.2 billion to \$2.4 billion, which corresponds to a compound annual growth rate of 14 percent. Although this trend appears to have started in 1989, it has clearly continued under NAFTA.

Second, exports of high-value processed products increased more rapidly during the first 5 years of NAFTA than during the 6 years before NAFTA. Between 1993 and 1998, this trade increased at a compound annual rate of 19 percent, compared with 6 percent between 1987 and 1993. The share associated with this category also increased over this period, rising from 24 percent in 1993 to 32 percent in 1998.

Figure 6: Mexican Agricultural Exports to the United States, 1975-1998.

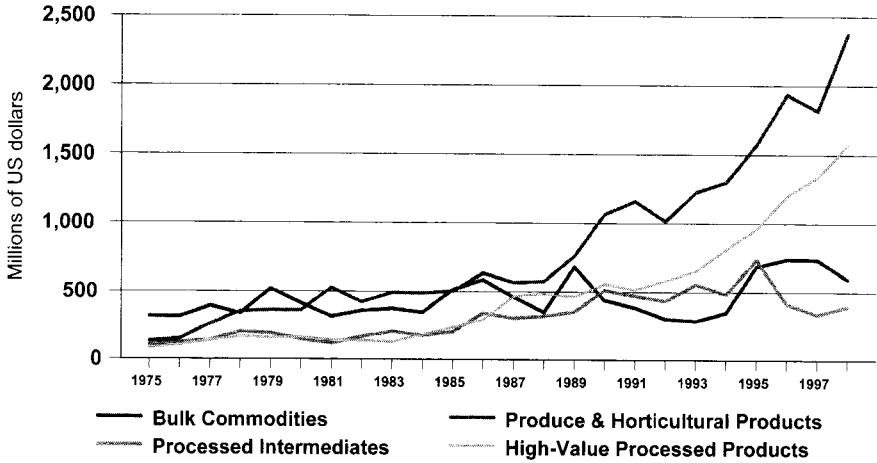
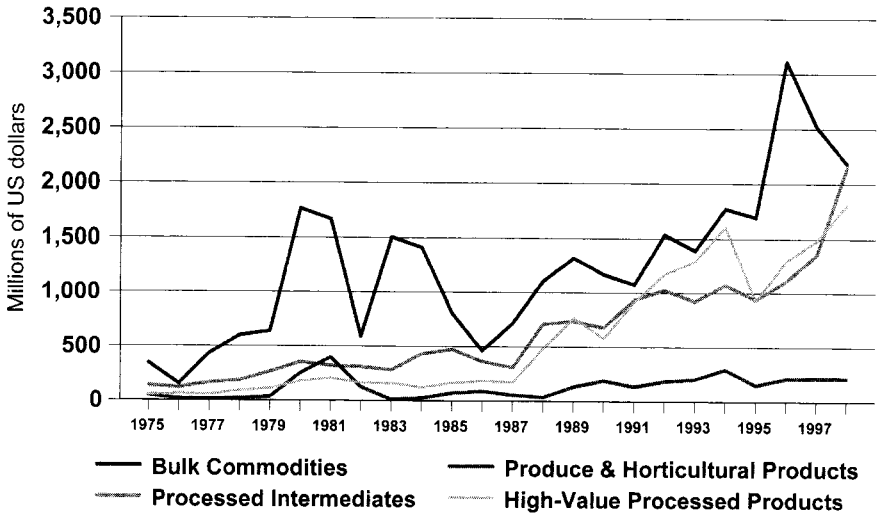
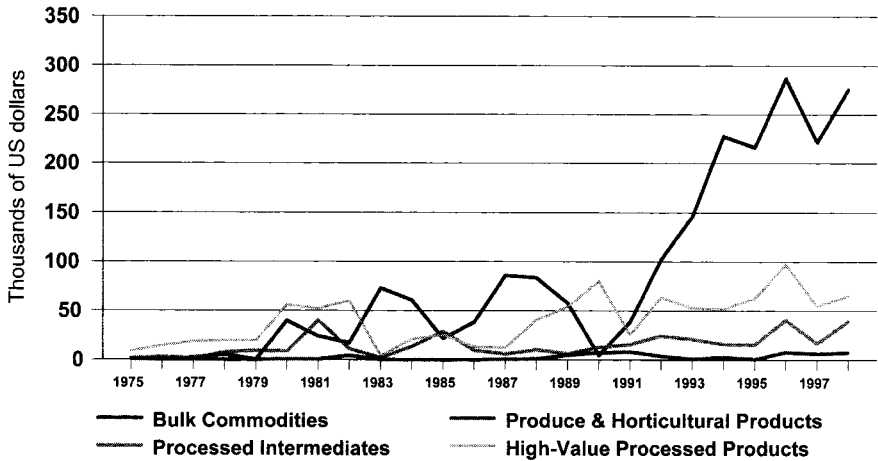


Figure 7: U.S. Agricultural Exports to Mexico, 1975-1998.



Third, after successive annual decreases from 1990 to 1993, exports of bulk commodities have rebounded under NAFTA, from a low of \$287 million in 1993 to an average of \$721 million during 1995-97. Although this trade

Figure 8: Canadian Agricultural Exports to Mexico, 1975-1998.

declined to \$596 million in 1998, this amount is still greater than the annual exports in every year but one (1989) during the 1975-93 period. Fourth, exports of processed intermediates have experienced marked decreases over the last several years. Following an all-time high of \$737 million in 1995, these averaged only \$383 million during 1996-98. This latter figure is also less than the annual average during the 1990-94 period.

U.S. Exports to Mexico

Bulk commodities constitute the largest portion of U.S. agricultural exports to Mexico (Appendix Table 10). In 1998, exports in this category equaled \$2.2 billion, accounting for 34 percent of the total. The next largest categories in 1998 were processed intermediates (34 percent) and high-value processed products (28 percent).

In nominal terms, the years 1996-98 featured the three highest levels ever of bulk-commodity exports to Mexico (Appendix Table 11 and Figure 7). In 1996, this trade reached a record \$3.1 billion, accounting for more than half of U.S. agricultural exports to Mexico. In 1997 and 1998, bulk-commodity

exports decreased to \$2.5 billion and then \$2.2 billion, perhaps due in part to lower commodity prices.

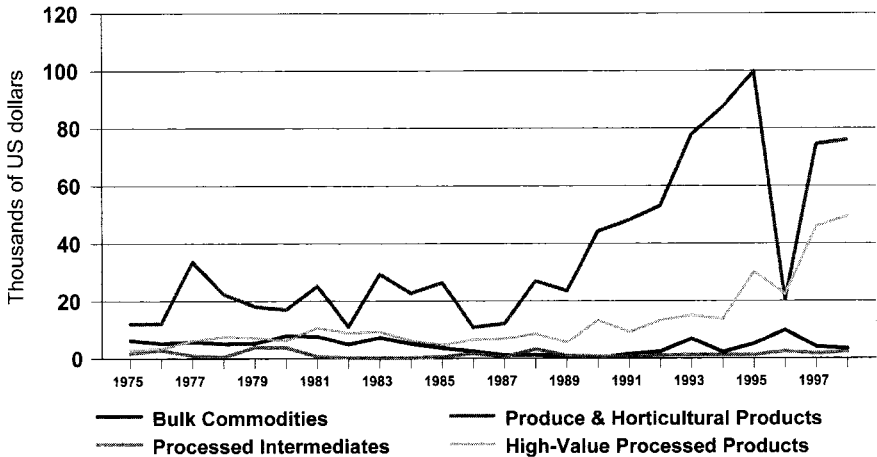
Exports of processed intermediates have experienced the most sustained growth under NAFTA, climbing from \$938 million in 1995 to \$2.2 billion in 1998. Of the four categories, processed intermediates also experienced the second smallest proportionate reduction in exports during the 1995 recession. Exports of processed intermediates decreased 13 percent in 1995, compared with a 22-percent decline overall.

Two categories experienced relatively little export growth between 1993 and 1998: high-value processed products and produce and horticultural products. In response to the 1995 recession, exports of high-value processed products shrank from \$1.6 billion to \$929 million between 1994 and 1995, a decrease of 42 percent. Since then, this trade has experienced several successive years of growth, climbing to \$1.8 billion in 1998. Similarly, exports of produce and horticultural products fell to \$151 million in 1995, a decline of 49 percent. In 1996, these exports rebounded to \$211 million, and in 1997 and 1998, they reached \$215 million.

Canadian Exports to Mexico

Bulk commodities are by far the largest component of Canadian agricultural exports to Mexico (Appendix Table 12). In 1998, the category accounted for 71 percent of this trade, with exports of \$276 million. The next largest categories are high-value processed products and processed intermediates, with shares of 17 percent and 10 percent, respectively.

One major development in Canadian agricultural exports to Mexico is the establishment of routine bulk-commodity trade during the 1990s (Appendix Table 13 and Figure 8). Exports in this category fluctuated greatly during 1981-90, ranging from \$5 million in 1990 to \$86 million in 1987. In contrast, this trade averaged \$246 million during the first 5 years of NAFTA, with a low of \$216 million in 1995 and a high of \$287 million in 1996. Had Canada not participated in NAFTA, it is quite possible that the United States would have supplied some of these exports to Mexico.

Figure 9: Mexican Agricultural Exports to Canada, 1975-1998.

Over the last several years, exports of high-value processed products have followed a similar pattern to exports of processed intermediates. This pattern is characterized by a pronounced increase in 1996, a sharp decrease in 1997 that returned exports to approximately their 1995 level, and then another increase in 1998.

Mexican Exports to Canada

The two largest components of Mexican agricultural exports to Canada are produce and horticultural products, with a 1998 share of 58 percent, and high-value processed products, with 38 percent (Appendix Table 14). Exports in these two categories respectively equaled \$76 million and \$49 million in 1998.

Similar to developments in Mexico-U.S. trade, Mexican exports of produce and horticultural products to Canada increased substantially during the first half of the 1990s (Appendix Table 15 and Figure 9). Between 1989 and 1995, these exports experienced six successive annual increases, climbing from \$24 million to a record \$100 million. But in NAFTA's third year (1996), exports of produce and horticultural products decreased sharply, falling to a mere

\$20 million. High-value processed products also experienced reduced exports in 1996. Exports in both categories recovered in 1997.

The only category to experience substantially improved export growth under NAFTA is high-value processed products. Exports in this category grew from \$15 million in 1993 to \$49 million in 1998, a change of 227 percent. In contrast, these exports increased 170 percent between 1989 and 1993.

SUMMARY AND CONCLUSIONS

This background paper has offered a profile of North American agricultural trade during 1975-98 using statistics from the IBAT Database. Although this presentation is not a substitute for a more rigorous analytical exercise, it has uncovered several important trends related to CUSFTA and NAFTA.

First, North American agricultural trade has continued to grow following the implementation of the two agreements. At first glance, this observation may seem too obvious, given that various factors, such as economic expansion and population growth, “build in” trade growth. However, the observation becomes more noteworthy with the recognition that most agricultural sectors within each NAFTA country have experienced increased trade, using the IBAT Database’s more detailed sectoral trade figures. Second, agricultural trade among the three NAFTA countries accounts for a larger portion of total North American agricultural trade than it did before NAFTA. This development is part of a long-term trend that spans the entire 1975-98 period, and it has been strengthened temporarily by a decline in agricultural exports to countries outside NAFTA (primarily in Asia) that have grappled with profound economic crises in recent years. Still, it seems likely that CUSFTA and NAFTA have provided additional stimulus to this process.

Third, this paper has identified a number of turning points in North American agricultural trade during 1975-98. Many of these turning points do not coincide with the initial implementation of either CUSFTA or NAFTA. However, some may correspond to the timing of certain elements of the two agreements. In addition, several turning points are likely related to exchange-rate movements. Thus, a complete evaluation of the impact of CUSFTA and NAFTA

would require an analysis of the complex interplay between trade policy, trade flows, and exchange rates.

At the aggregate level, two years (1988 and 1992) stand out as major turning points. The year 1988 is important because it seems to mark the initial impact of Mexico's unilateral trade liberalization on U.S. agricultural exports to Mexico. In addition, the year may be viewed as an approximate end to Mexico's economic crisis of the 1980s. The year 1992 is noteworthy because it is the beginning of a period of heightened growth in Canadian agricultural exports to the United States. This development may be linked both to tariff reductions specified by CUSFTA and to the appreciation of the U.S. dollar relative to the Canadian dollar. Interestingly, some bilateral relationships in North American agricultural trade do not feature dramatic turning points for the simple reason that these flows have been steadily on the rise during much of the 1975-98 period. U.S. agricultural exports to Canada and Mexican agricultural exports to the United States are prominent examples of this sustained trade growth.

Finally, an analytical approach that draws upon a variety of trade theories is needed to explain sectoral developments in North American agricultural trade. For instance, the expansion of Mexican exports of produce and horticultural products to Canada and the United States fits neatly within a Ricardian story of comparative advantage. In contrast, the increase in Canadian bulk-commodity exports to the United States and the concomitant increase in U.S. bulk-commodity exports to Mexico may be explained best by a combination of comparative advantage and geographic proximity. This approach will also require exploration of the complementary relationship between foreign investment and international trade so that we may understand how multinational firms have reorganized their operations in response to the new economic environment presented by NAFTA.

REFERENCES

International Bilateral Agricultural Trade Database.

U.S. Department of Agriculture, Economic Research Service. 1990. "Outlook for U.S. Agricultural Exports." May 30.

APPENDIX TABLES 1-15

AGRICULTURAL TRADE DATA OF NAFTA COUNTRIES, 1975-98

Table 1: Agricultural Exports of NAFTA Countries, 1975-98 (in millions of U.S. dollars).

Year	Canadian Exports to:			Mexican Exports to:			U.S. Exports to:					
	ROW	NAFTA	Mexico	U.S.	ROW	NAFTA	Canada	U.S.	ROW	NAFTA	Canada	Mexico
1975	3,468	521	12	509	409	658	23	634	20,312	2,125	1,546	579
1976	3,415	620	18	602	384	712	24	688	21,240	2,180	1,830	350
1977	3,454	705	23	682	601	977	47	930	21,711	2,570	1,904	666
1978	3,598	781	33	748	666	1,091	36	1,055	26,733	2,837	1,939	898
1979	4,378	969	30	939	829	1,267	35	1,232	32,195	3,327	2,276	1,051
1980	6,103	1,166	105	1,061	761	1,116	35	1,081	37,362	5,050	2,505	2,545
1981	6,478	1,250	117	1,133	605	1,146	45	1,102	39,145	5,322	2,730	2,592
1982	6,720	1,492	93	1,399	468	1,111	25	1,085	33,956	3,680	2,488	1,191
1983	6,537	1,631	79	1,552	392	1,247	47	1,200	32,326	4,503	2,543	1,960
1984	6,470	1,969	95	1,874	518	1,227	34	1,192	33,821	4,790	2,796	1,994
1985	4,826	2,009	76	1,934	399	1,493	35	1,457	26,010	4,096	2,582	1,513
1986	4,250	2,073	61	2,012	545	1,878	22	1,856	23,189	3,755	2,660	1,095
1987	4,704	2,324	105	2,218	459	1,820	21	1,799	26,050	4,244	2,992	1,252
1988	5,520	2,633	135	2,497	667	1,774	40	1,734	33,200	5,689	3,351	2,337
1989	4,856	2,964	123	2,841	648	2,294	31	2,264	36,281	6,694	3,740	2,955
1990	5,467	3,321	105	3,216	391	2,634	59	2,575	33,795	6,677	4,058	2,619
1991	5,785	3,512	88	3,423	591	2,594	60	2,534	32,419	7,392	4,329	3,064
1992	6,215	4,364	194	4,170	478	2,404	70	2,334	35,281	8,596	4,679	3,917
1993	4,691	5,011	221	4,790	484	2,825	101	2,724	35,332	8,930	5,123	3,807
1994	5,288	5,756	298	5,458	746	3,051	105	2,946	37,601	10,137	5,386	4,751
1995	6,544	6,123	296	5,827	1,283	4,097	137	3,960	49,171	9,350	5,637	3,712
1996	7,157	7,494	432	7,062	1,155	4,349	55	4,294	50,746	11,700	5,975	5,725
1997	7,085	7,992	300	7,693	1,651	4,356	126	4,230	46,437	12,248	6,678	5,570
1998	5,987	8,461	388	8,073	1,545	5,068	131	4,937	40,129	13,304	6,945	6,358
Period Averages												
1984-88	5,154	2,202	95	2,107	518	1,638	31	1,608	28,454	4,515	2,876	1,638
1989-93	5,403	3,834	146	3,688	518	2,550	64	2,486	34,621	7,658	4,386	3,272
1994-98	6,412	7,165	343	6,822	1,276	4,184	111	4,073	44,817	11,348	6,125	5,223

ROW = rest of world

Table 2: Origin of Agricultural Imports of NAFTA Countries, 1975-98 (in percent).

Year	Canadian Imports from:			Mexican Imports from:			U.S. Imports from:			ROW	NAFTA	Canada	Mexico
	ROW	NAFTA	Mexico	U.S.	ROW	NAFTA	Canada	U.S.	ROW				
1975	44	56	1	55	37	63	1	62	88	12	5	7	
1976	40	60	1	59	34	66	3	63	89	11	5	6	
1977	40	60	1	59	22	78	3	75	88	12	5	7	
1978	41	59	1	58	20	80	3	77	88	12	5	7	
1979	41	59	1	58	20	80	2	78	88	12	5	7	
1980	42	58	1	57	24	76	3	73	89	11	6	6	
1981	40	60	1	59	25	75	3	71	88	12	6	6	
1982	38	62	1	62	33	67	5	62	84	16	9	7	
1983	38	62	1	61	17	83	3	79	84	16	9	7	
1984	40	60	1	60	23	77	4	74	85	15	9	6	
1985	41	59	1	59	29	71	3	68	84	16	9	7	
1986	42	58	*	58	23	77	4	73	82	18	9	9	
1987	40	60	*	60	17	83	6	76	81	19	10	8	
1988	39	61	1	60	19	81	4	76	80	20	12	8	
1989	37	63	1	62	24	76	3	73	77	23	13	10	
1990	38	62	1	61	41	59	2	57	76	24	14	11	
1991	37	63	1	62	30	70	2	68	75	25	15	11	
1992	35	65	1	64	26	74	3	70	74	26	17	9	
1993	33	67	1	66	26	74	4	70	71	29	19	11	
1994	34	66	1	64	23	77	5	72	70	30	20	11	
1995	34	66	2	64	19	81	6	75	68	32	19	13	
1996	33	67	1	66	19	81	6	75	67	33	21	13	
1997	34	66	1	65	20	80	4	76	68	32	21	11	
1998	34	66	1	65	17	83	5	78	66	34	21	13	
Period Averages													
1984-88	40	60	1	59	22	78	4	73	82	18	10	8	
1989-93	36	64	1	63	29	71	3	68	74	26	15	10	
1994-98	34	66	1	65	20	80	5	75	68	32	20	12	

ROW = rest of world

* indicates a value between zero and 0.5 percent.

Table 3: Destination of Agricultural Exports of NAFTA Countries, 1975-98 (in percent).

Year	Canadian Exports to:			Mexican Exports to:			U.S. Exports to:					
	ROW	NAFTA	Mexico	U.S.	ROW	NAFTA	Canada	U.S.	ROW	NAFTA	Canada	Mexico
1975	87	13	*	13	38	62	2	59	91	9	7	3
1976	85	15	*	15	35	65	2	63	91	9	8	1
1977	83	17	1	16	38	62	3	59	89	11	8	3
1978	82	18	1	17	38	62	2	60	90	10	7	3
1979	82	18	1	18	40	60	2	59	91	9	6	3
1980	84	16	1	15	41	59	2	58	88	12	6	6
1981	84	16	2	15	35	65	3	63	88	12	6	6
1982	82	18	1	17	30	70	2	69	90	10	7	3
1983	80	20	1	19	24	76	3	73	88	12	7	5
1984	77	23	1	22	30	70	2	68	88	12	7	5
1985	71	29	1	28	21	79	2	77	86	14	9	5
1986	67	33	1	32	22	78	1	77	86	14	10	4
1987	67	33	1	32	20	80	1	79	86	14	10	4
1988	68	32	2	31	27	73	2	71	85	15	9	6
1989	62	38	2	36	22	78	1	77	84	16	9	7
1990	62	38	1	37	13	87	2	85	84	16	10	6
1991	62	38	1	37	19	81	2	80	81	19	11	8
1992	59	41	2	39	17	83	2	81	80	20	11	9
1993	48	52	2	49	15	85	3	82	80	20	12	9
1994	48	52	3	49	20	80	3	78	79	21	11	10
1995	52	48	2	46	24	76	3	74	84	16	10	6
1996	49	51	3	48	21	79	1	78	81	19	10	9
1997	47	53	2	51	27	73	2	70	79	21	11	9
1998	41	59	3	56	23	77	2	75	75	25	13	12
Period Averages												
1984-88	70	30	1	29	24	76	1	74	86	14	9	5
1989-93	59	41	2	40	17	83	2	81	82	18	10	8
1994-98	47	53	3	50	23	77	2	75	80	20	11	9

ROW = rest of world
 * indicates a value between zero and 0.5 percent.

Table 4: Composition of Canadian Agricultural Exports to the United States, by Category, 1975-98 (in percent).

Year	Total						
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products		
1975	100	19	46	7	28		
1976	100	13	47	6	33		
1977	100	12	48	7	33		
1978	100	7	50	8	35		
1979	100	8	48	7	36		
1980	100	8	41	8	44		
1981	100	11	33	9	47		
1982	100	9	36	8	47		
1983	100	8	36	8	48		
1984	100	7	34	7	51		
1985	100	8	33	7	52		
1986	100	7	27	8	59		
1987	100	8	27	7	58		
1988	100	10	35	7	48		
1989	100	14	32	8	46		
1990	100	11	36	7	46		
1991	100	9	37	7	47		
1992	100	11	41	6	43		
1993	100	11	38	6	45		
1994	100	16	35	6	44		
1995	100	12	37	6	45		
1996	100	12	38	7	44		
1997	100	13	34	7	46		
1998	100	10	32	8	50		
Period Averages							
1984-88	100	8	31	7	54		
1989-93	100	11	37	7	45		
1994-98	100	13	35	7	46		
1989-98	100	12	36	7	45		

Table 5: Canadian Agricultural Exports to the United States, by Category, 1975-98 (in millions of U.S. dollars).

Year	Total				Processed Intermediates	Produce & Horticultural Products		High-Value Processed Products
	Agricultural Products	Bulk Commodities	Commodities	Processed Intermediates		Horticultural Products	Produce & Horticultural Products	
1975	509	97	235	35	142			
1976	602	81	285	37	199			
1977	682	84	328	47	224			
1978	748	54	371	58	265			
1979	939	78	454	65	341			
1980	1,061	80	433	81	468			
1981	1,133	130	369	108	527			
1982	1,399	131	503	112	652			
1983	1,552	130	562	118	743			
1984	1,874	136	640	135	962			
1985	1,934	160	631	132	1,011			
1986	2,012	149	533	152	1,178			
1987	2,218	171	604	158	1,286			
1988	2,497	241	883	183	1,190			
1989	2,841	385	923	225	1,308			
1990	3,216	345	1,167	238	1,466			
1991	3,423	295	1,278	235	1,615			
1992	4,170	443	1,697	236	1,794			
1993	4,790	540	1,841	271	2,137			
1994	5,458	855	1,916	311	2,376			
1995	5,827	726	2,150	355	2,595			
1996	7,062	864	2,655	467	3,076			
1997	7,693	989	2,612	523	3,568			
1998	8,073	779	2,605	653	4,036			
Period Averages								
1984-88	2,107	171	658	152	1,125			
1989-93	3,688	402	1,381	241	1,664			
1994-98	6,822	843	2,388	462	3,130			
Selected Annual Growth Rates (Compounded)								
1984-91	9%	12%	10%	8%	8%			
1991-98	13%	15%	11%	16%	14%			

Table 6: Composition of U.S. Agricultural Exports to Canada, by Category, 1975-98 (in percent).

Year	Total				
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products
1975	100	23	23	29	25
1976	100	20	23	28	28
1977	100	23	21	29	27
1978	100	21	22	31	26
1979	100	23	25	30	23
1980	100	26	22	29	22
1981	100	22	23	33	22
1982	100	19	21	36	24
1983	100	17	23	35	25
1984	100	17	22	34	26
1985	100	15	23	35	27
1986	100	12	25	38	26
1987	100	10	26	37	27
1988	100	9	26	37	29
1989	100	10	22	36	32
1990	100	9	20	33	38
1991	100	7	20	32	41
1992	100	8	20	30	42
1993	100	7	21	30	42
1994	100	6	22	26	46
1995	100	8	21	27	45
1996	100	8	23	24	45
1997	100	8	23	24	46
1998	100	5	23	22	49
Period Averages					
1984-88	100	12	24	36	27
1989-93	100	8	21	32	39
1994-98	100	7	22	25	46
1989-98	100	8	21	28	43

Table 7: U.S. Agricultural Exports to Canada, by Category, 1975-98
(in millions of U.S. dollars).

Year	Total		Processed Intermediates	Produce & Horticultural Products		High-Value Processed Products
	Agricultural Products	Bulk Commodities		Produce & Horticultural Products	High-Value Processed Products	
1975	1,546	362	355	446	383	
1976	1,830	373	428	518	511	
1977	1,904	435	395	554	519	
1978	1,939	403	430	598	508	
1979	2,276	512	559	685	520	
1980	2,505	649	563	736	557	
1981	2,730	597	635	889	609	
1982	2,488	473	525	898	593	
1983	2,543	436	582	895	630	
1984	2,796	475	620	961	740	
1985	2,582	384	593	903	702	
1986	2,660	320	655	1,000	686	
1987	2,992	286	775	1,119	813	
1988	3,351	289	863	1,227	973	
1989	3,740	373	832	1,332	1,203	
1990	4,058	364	817	1,344	1,533	
1991	4,329	306	850	1,377	1,796	
1992	4,679	366	944	1,406	1,963	
1993	5,123	368	1,073	1,515	2,167	
1994	5,386	319	1,169	1,421	2,478	
1995	5,637	424	1,200	1,500	2,514	
1996	5,975	501	1,346	1,445	2,684	
1997	6,678	540	1,520	1,574	3,044	
1998	6,945	378	1,623	1,544	3,400	
Period Averages						
1984-88	2,876	351	701	1,042	783	
1989-93	4,386	355	903	1,395	1,733	
1994-98	6,125	432	1,372	1,497	2,824	
Selected Annual Growth Rates (Compounded)						
1988-98	8%	3%	7%	2%	13%	

Table 8: Composition of Mexican Agricultural Exports to the United States, by Category, 1975-98 (in percent).

Year	Total	Produce & High-Value Agricultural Products	Bulk Commodities	Processed Intermediates	Horticultural Products	Processed Products
1975	100	50	16	21	13	13
1976	100	45	18	21	15	15
1977	100	42	15	28	15	15
1978	100	32	19	34	16	16
1979	100	42	15	29	13	13
1980	100	38	14	33	15	15
1981	100	29	11	48	13	13
1982	100	33	15	39	13	13
1983	100	31	17	41	11	11
1984	100	29	15	41	15	15
1985	100	35	14	35	16	16
1986	100	32	18	34	16	16
1987	100	26	17	32	26	26
1988	100	20	19	33	28	28
1989	100	30	16	34	21	21
1990	100	17	20	41	22	22
1991	100	15	19	46	20	20
1992	100	13	19	43	25	25
1993	100	11	20	45	24	24
1994	100	12	16	44	28	28
1995	100	17	19	40	24	24
1996	100	17	10	45	28	28
1997	100	17	8	43	32	32
1998	100	12	8	48	32	32
Period Averages						
1984-88	100	28	17	35	20	20
1989-93	100	17	19	42	22	22
1994-98	100	15	12	44	29	29

Table 9: Mexican Agricultural Exports to the United States, by Category, 1975-98
(in millions of U.S. dollars).

Year	Total				
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products
1975	634	317	103	132	82
1976	688	313	123	148	105
1977	930	393	138	259	139
1978	1,055	338	200	354	164
1979	1,232	520	190	363	158
1980	1,081	413	147	362	159
1981	1,102	316	118	527	141
1982	1,085	359	166	422	139
1983	1,200	375	203	493	129
1984	1,192	347	175	489	181
1985	1,457	515	202	504	236
1986	1,856	586	343	635	293
1987	1,799	460	306	567	466
1988	1,734	351	321	576	486
1989	2,264	682	354	762	465
1990	2,575	439	512	1,066	558
1991	2,534	385	471	1,161	518
1992	2,334	303	433	1,014	583
1993	2,724	287	557	1,227	653
1994	2,946	349	485	1,300	812
1995	3,960	687	737	1,575	960
1996	4,294	740	415	1,938	1,201
1997	4,230	737	415	1,820	1,336
1998	4,937	596	396	2,374	1,572
Period Averages					
1984-86	1,608	452	269	554	332
1989-93	2,486	419	466	1,046	556
1994-98	4,073	622	474	1,801	1,176
Selected Annual Growth Rates (Compounded)					
1987-93	7%	-8%	10%	14%	6%
1993-98	13%	16%	-7%	14%	19%

Table 10: Composition of U.S. Agricultural Exports to Mexico, by Category, 1975-98 (in percent).

Year	Total						
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products		
1975	100	59	23	8	9		
1976	100	43	34	4	18		
1977	100	65	24	2	8		
1978	100	67	21	2	10		
1979	100	61	25	3	11		
1980	100	69	14	10	7		
1981	100	64	12	15	8		
1982	100	50	26	11	13		
1983	100	77	14	1	8		
1984	100	71	22	1	6		
1985	100	53	31	5	11		
1986	100	42	33	8	17		
1987	100	57	25	4	14		
1988	100	47	31	2	21		
1989	100	45	25	5	26		
1990	100	45	26	7	22		
1991	100	35	31	4	30		
1992	100	39	26	5	30		
1993	100	37	24	5	34		
1994	100	37	23	6	34		
1995	100	46	25	4	25		
1996	100	54	19	4	23		
1997	100	45	24	4	27		
1998	100	34	34	3	28		
Period Averages							
1984-88	100	54	28	4	14		
1989-93	100	40	26	5	28		
1994-98	100	43	25	4	27		

Table 11: U.S. Agricultural Exports to Mexico, by Category, 1975-98
(in millions of U.S. dollars).

Year	Total				Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products			
1975	579	343	135	48	53		
1976	350	152	118	15	64		
1977	666	434	163	14	55		
1978	898	601	184	20	93		
1979	1,051	641	264	35	111		
1980	2,545	1,764	354	176	206		
1981	2,592	1,668	320	397	161		
1982	1,191	594	311	126	159		
1983	1,960	1,506	282	13	124		
1984	1,994	1,413	431	25	162		
1985	1,513	807	473	72	182		
1986	1,095	462	362	89	170		
1987	1,252	718	308	56	481		
1988	2,337	1,107	713	36	768		
1989	2,955	1,317	736	133	580		
1990	2,619	1,169	681	189	914		
1991	3,064	1,077	936	136	1,171		
1992	3,917	1,536	1,026	184	1,290		
1993	3,807	1,391	922	203	1,609		
1994	4,751	1,772	1,075	294	929		
1995	3,712	1,694	938	151	1,293		
1996	5,725	3,111	1,110	211	1,485		
1997	5,570	2,518	1,352	215	1,807		
1998	6,358	2,186	2,150	215			
Period Averages							
1984-88	1,638	901	457	56	224		
1989-93	3,272	1,298	860	169	944		
1994-98	5,223	2,256	1,325	217	1,425		
Annual Growth Rates (Not Compounded)							
1994	25%	27%	17%	45%	25%		
1995	-22%	-4%	-13%	-49%	-42%		
1996	54%	84%	18%	40%	39%		
1997	-3%	-19%	22%	2%	15%		
1998	14%	-13%	59%	*	22%		

* indicates a value between zero and 0.5 percent.

Table 12: Composition of Canadian Agricultural Exports to Mexico, by Category, 1975-98 (in percent).

Year	Total				
	Agricultural Products	Bulk Commodities	Processed Intermediates	Produce & Horticultural Products	High-Value Processed Products
1975	100	8	14	6	72
1976	100	*	16	1	82
1977	100	11	8	1	80
1978	100	17	23	*	60
1979	100	1	32	1	66
1980	100	38	8	1	53
1981	100	20	34	1	45
1982	100	18	12	5	65
1983	100	92	3	*	5
1984	100	64	14	*	22
1985	100	29	38	*	33
1986	100	62	16	*	22
1987	100	82	6	1	12
1988	100	62	8	1	30
1989	100	47	5	4	44
1990	100	5	12	7	76
1991	100	44	18	9	29
1992	100	53	13	2	33
1993	100	66	10	*	24
1994	100	76	5	1	17
1995	100	73	5	*	21
1996	100	66	9	2	22
1997	100	74	6	2	18
1998	100	71	10	2	17
Period Averages					
1984-88	100	60	16	*	24
1989-93	100	43	11	5	41
1994-98	100	72	7	1	19

* indicates a value between zero and 0.5 percent.

Table 13: Canadian Agricultural Exports to Mexico, by Category, 1975-98
(in thousands of U.S. dollars).

Year	Total				Processed Intermediates	Produce & Horticultural Products		High-Value Processed Products
	Agricultural Products	Bulk Commodities	Commodities	High-Value Processed Products				
1975	12,429	1,046	1,751	732	8,899			
1976	17,600	63	2,883	193	14,462			
1977	23,297	2,481	1,866	256	18,695			
1978	32,902	5,444	7,568	129	19,761			
1979	29,584	378	9,477	177	19,552			
1980	104,642	39,685	8,567	674	55,715			
1981	116,971	23,928	40,136	595	52,312			
1982	92,950	17,107	11,279	4,472	60,091			
1983	79,219	72,928	2,141	31	4,119			
1984	95,332	60,836	13,432	36	21,028			
1985	75,778	21,779	28,843	25	25,132			
1986	61,166	38,182	9,685	57	13,242			
1987	105,218	85,782	6,082	802	12,553			
1988	135,384	83,517	10,383	1,032	40,452			
1989	123,011	57,706	6,300	4,926	54,079			
1990	105,190	4,797	12,917	7,378	80,097			
1991	88,278	38,518	15,822	8,366	25,572			
1992	194,354	102,175	24,416	4,088	63,675			
1993	220,912	146,215	21,092	903	52,702			
1994	298,472	227,662	16,039	2,922	51,849			
1995	295,647	216,246	15,685	802	62,914			
1996	432,220	286,809	40,528	7,938	96,945			
1997	299,588	221,546	16,876	6,352	54,814			
1998	387,892	275,658	39,105	7,708	65,421			
Period Averages								
1984-88	94,576	58,019	13,685	390	22,481			
1989-93	146,349	69,882	16,110	5,132	55,225			
1994-98	342,764	245,584	25,647	5,144	66,389			

Table 14: Mexican Agricultural Exports to Canada, by Category, 1975-98 (in thousands of U.S. dollars).

Year	Total				Produce &		High-Value Processed Products
	Agricultural Products	Bulk Commodities	Processed Intermediates	Horticultural Products			
1975	23,463	6,361	1,844	12,149	3,109		
1976	24,044	5,288	2,983	12,307	3,466		
1977	47,097	5,848	1,038	33,902	6,310		
1978	35,935	5,206	592	22,418	7,719		
1979	34,893	5,358	4,002	18,165	7,368		
1980	35,203	8,010	3,897	16,997	6,300		
1981	44,523	7,730	751	25,269	10,774		
1982	25,349	5,003	304	11,145	8,897		
1983	46,506	7,362	207	29,487	9,450		
1984	34,415	5,157	237	22,795	6,225		
1985	35,489	3,694	641	26,460	4,694		
1986	21,917	2,565	1,820	10,939	6,594		
1987	21,058	1,163	670	12,246	6,979		
1988	40,165	1,281	3,288	27,016	8,580		
1989	30,783	663	966	23,571	5,583		
1990	58,688	252	751	44,307	13,378		
1991	59,642	1,586	764	48,077	9,215		
1992	69,955	2,432	1,115	53,036	13,372		
1993	101,014	6,883	1,232	77,825	15,074		
1994	104,608	2,223	1,298	87,319	13,768		
1995	136,538	5,154	1,213	99,856	30,315		
1996	55,168	9,897	2,452	20,407	22,412		
1997	126,164	4,065	1,724	74,485	45,890		
1998	131,022	3,370	2,318	75,977	49,357		
Period Averages							
1984-88	30,609	2,772	1,331	19,891	6,614		
1989-93	64,016	2,363	966	49,363	11,324		
1994-98	110,700	4,942	1,801	71,609	32,348		

Table 15: Agricultural Imports of NAFTA Countries, 1975-98 (in millions of U.S. dollars).

Year	Canadian Imports from:			Mexican Imports from:			U.S. Imports from:			ROW	Canada	U.S.	ROW	NAFTA	Canada	Mexico
	ROW	NAFTA	Mexico	U.S.	ROW	NAFTA	U.S.	ROW	NAFTA							
1975	1,238	1,569	23	1,546	343	591	12	579	8,568	1,143	509	634				
1976	1,227	1,854	24	1,830	189	368	18	350	10,008	1,290	602	688				
1977	1,298	1,951	47	1,904	197	689	23	666	11,725	1,612	682	930				
1978	1,359	1,975	36	1,939	231	931	33	898	13,568	1,803	748	1,055				
1979	1,594	2,311	35	2,276	275	1,081	30	1,051	15,370	2,171	939	1,232				
1980	1,848	2,540	35	2,505	827	2,650	105	2,545	16,565	2,142	1,061	1,081				
1981	1,867	2,775	45	2,730	925	2,709	117	2,592	16,341	2,235	1,133	1,102				
1982	1,512	2,514	25	2,488	627	1,284	93	1,191	13,335	2,484	1,399	1,085				
1983	1,589	2,590	47	2,543	429	2,039	79	1,960	14,311	2,752	1,552	1,200				
1984	1,849	2,831	34	2,796	622	2,089	95	1,994	16,984	3,066	1,874	1,192				
1985	1,785	2,618	35	2,582	644	1,589	76	1,513	17,163	3,391	1,934	1,457				
1986	1,915	2,682	22	2,660	347	1,156	61	1,095	17,779	3,868	2,012	1,856				
1987	2,012	3,013	21	2,992	285	1,358	105	1,252	17,248	4,017	2,218	1,799				
1988	2,188	3,392	40	3,351	583	2,473	135	2,337	17,368	4,231	2,497	1,734				
1989	2,256	3,771	31	3,740	978	3,078	123	2,955	16,943	5,105	2,841	2,264				
1990	2,555	4,117	59	4,058	1,869	2,724	105	2,619	17,906	5,791	3,216	2,575				
1991	2,553	4,389	60	4,329	1,367	3,152	88	3,064	17,490	5,957	3,423	2,534				
1992	2,565	4,749	70	4,679	1,460	4,112	194	3,917	18,103	6,504	4,170	2,334				
1993	2,577	5,224	101	5,123	1,391	4,028	221	3,807	18,116	7,514	4,790	2,724				
1994	2,881	5,491	105	5,386	1,507	5,049	298	4,751	19,539	8,404	5,458	2,946				
1995	2,970	5,774	137	5,637	965	4,008	296	3,712	21,233	9,787	5,827	3,960				
1996	3,021	6,030	55	5,975	1,436	6,157	432	5,725	22,676	11,356	7,062	4,294				
1997	3,514	6,805	126	6,678	1,498	5,870	300	5,570	25,316	11,923	7,693	4,230				
1998	3,610	7,076	131	6,945	1,414	6,746	388	6,358	25,408	13,009	8,073	4,937				
Period Averages																
1984-88	1,950	2,907	31	2,876	496	1,733	95	1,638	17,308	3,715	2,107	1,608				
1989-93	2,501	4,450	64	4,386	1,413	3,418	146	3,272	17,711	6,174	3,688	2,486				
1994-98	3,199	6,235	111	6,125	1,364	5,566	343	5,223	22,835	10,896	6,822	4,073				

ROW = rest of world