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Communiqué

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Free trade's impact on exports, investment positive, but employment effects are mixed, says C.D. Howe Institute study

In the first seven years of its existence, the Canada-US Free Trade Agreement (FTA) and its successor, the North American Free Trade Agreement (NAFTA), had a significant positive impact on trade flows between Canada and the United States and Canada and Mexico, concludes a *C.D. Howe Institute Commentary* released today. Furthermore, the study concludes, Canada's investment performance during the period was strong. But, while the agreements are not to blame for Canada's disappointing labor market performance during the period, there is also little direct evidence that they helped to spur employment and wages.

The study, entitled *Trading Up: The Impact of Increased Continental Integration on Trade, Investment, and Jobs in Canada*, was written by Daniel Schwanen, a Senior Policy Analyst at the Institute. It is the latest and most comprehensive of the Institute's assessments of the move toward continental free trade.

In a detailed look at trends in trade flows between 1989, when the FTA came into effect, and 1995, Schwanen confirms the conclusion of earlier studies that bilateral growth in trade in sectors liberalized by the FTA considerably outpaced trade growth in other sectors or with other countries. This outstanding performance in the liberalized sectors cannot be explained, Schwanen says, by macroeconomic factors alone or by past industry trends. In many cases, it is reflected in an improvement in indicators of comparative advantage for liberalized products by the two countries' industries in each other's markets.

The NAFTA helped Canadian exporters weather the economic crisis in Mexico that followed the sharp devaluation of the peso in 1994. At the same time, Canadian imports from Mexico continued to grow at a clip similar to that of the pre-NAFTA period — perhaps not surprising given that Canada was already quite open to Mexican products before the agreement.

Schwanen shows that, despite the fears expressed by some that Canada would no longer be an attractive investment location following free trade's removal of the tariff "wall," Canada's share of North American business fixed capital investment reached a record high a few years after the FTA was implemented, although it has since settled closer to its historical average. From 1989 to 1995, the share of business capital investment allocated to Canada's potentially vulnerable manufacturing sector remained within the range of historical experience.

Perhaps surprisingly, North America as a whole did not become a relatively more attractive destination for foreign direct investment (FDI) during the period. Moreover, the importance of Canada and the United States in each other's FDI portfolio has been diminishing. This suggests, in part, that investors are confident they can serve more of the NAFTA market from their own domestic base and that overseas opportunities are attracting an increased share of the attention of North American and global investors, says Schwanen.

Manufacturing wages outpaced those in the overall economy during the 1989–95 period, while employment performance in manufacturing slightly underperformed an already declining historical trend relative to the overall economy. Schwanen points out that both of these outcomes are consistent with pre-FTA expectations, but there seems to be no significant difference in net employment or performance between industries that were the most sensitive to the changing trade environment and those that were less directly affected.

In fact, Schwanen argues, both the best and worst performers in the manufacturing sector are found in industries least directly affected by the FTA.

Meanwhile, sectors most directly sensitive to the agreement overall (those liberalized by the FTA and registering fast growth in exports, imports, or both) collectively saw no change in their share of manufacturing employment, and their average wages diminished somewhat relative to other manufacturers (although they still did better than the average for the economy). Some trade-related services sectors, however, registered strong absolute employment growth over the period, notes Schwanen.

Schwanen concludes that, while the FTA and NAFTA have not had the negative effect on employment that some had feared, they are far from having been a cure for Canada's poor competitiveness and employment performance. Factors other than North American free trade must account for Canada's problem of hesitant growth in employment, productivity, and earnings, Schwanen suggests.

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Communiqué

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L'impact du libre-échange sur les exportations et l'investissement a été positif, mais son effet sur l'emploi reste inégal, selon une étude de l'Institut C.D. Howe

Depuis leur mise en oeuvre, l'Accord de libre-échange Canada-États-Unis (ALE) et son successeur, l' Accord de libre-échange nord-américain (ALENA), ont eu un impact positif significatif sur les flux commerciaux entre le Canada et les États-Unis, ainsi qu'entre le Canada et le Mexique, conclut un *Commentaire* de l'Institut C.D. Howe publié aujourd'hui. De plus, l'étude conclut que le Canada a enregistré une bonne performance au chapitre de l'investissement durant cette période. Mais bien que ces accords ne soient pas à blâmer pour le comportement décevant du marché du travail canadien, peu porte à croire qu'ils aient contribué directement à la création d'emploi ou à des salaires plus élevés.

L'étude, intitulée *Trading Up: The Impact of Increased Continental Integration on Trade, Investment, and Jobs in Canada* (Échanger pour le mieux: l'impact de l'intégration continentale accrue sur le commerce, l'investissement et l'emploi au Canada), est rédigée par Daniel Schwanen, analyste de politique principal à l'Institut. Il s'agit de l'évaluation la plus récente et la plus complète qu'ait publié l'Institut de l'intégration accrue du marché nord-américain.

Un regard détaillé sur les flux du commerce entre 1989, date de l'entrée en vigueur de l'ALE, et 1995, confirme les conclusions d'études antérieures selon lesquelles la croissance des échanges dans les secteurs libéralisés par l'accord a considérablement dépassé celle enregistrée dans d'autres secteurs ou avec d'autres pays. Ce résultat ne peut être expliqué, selon M. Schwanen, que par des tendances à moyen terme ou des facteurs macro-économiques. Dans plusieurs cas, il reflète une amélioration comparative de la position concurrentielle des produits d'un des deux pays dans le marché de l'autre suite au libre-échange.

L'ALENA a aidé les exportateurs canadiens a traverser la crise économique survenue au Mexique suite à la dévaluation du peso en 1994. Les importations canadiennes venant du Mexique ont continué de croître durant cette période à un rythme semblable à celui établi avant l'entrée en vigueur de l'accord, ce qui n'est pas nécessairement surprenant si l'on considère que le Canada était déjà fort ouvert aux produits mexicains avant l'ALENA.

M. Schwanen montre aussi que, malgré les craintes exprimées quant à la capacité du Canada de continuer d'attirer les investissements suite à la disparition du tarif douanier

protecteur, la part de toutes les dépenses en capital fixe des entreprises nord-américaines destinée au Canada a en fait touché un niveau record peu après l'entrée en vigueur de l'accord, quoi qu'elle soit depuis revenue à sa moyenne habituelle. De plus, entre 1989 et 1995, la part des investissements en capital fixe des entreprises allouée au secteur manufacturier, potentiellement vulnérable, ne s'est pas écartée de l'expérience des années précédentes.

Les données montrent que l'investissement étranger direct (IED) ne s'est pas dirigé vers l'ensemble de l'Amérique du nord suite à l'ALENA, ce qui peut paraître surprenant. De plus, la part respective du Canada et des États-Unis dans le portefeuille d'investissement étranger de l'autre a diminué. Ceci permet de supposer, dit M. Schwanen, que les entreprises sont plus prêtes à desservir l'ALENA dans son ensemble a partir de leur propre marché intérieur, alors que les pays d'outre-mer attirent une part croissante de l'IED en provenance de l'Amérique du nord et d'ailleurs.

Les salaires du secteur manufacturier ont mieux fait que ceux de l'économie en général au cours de la période qui a suivi la mise en oeuvre de l'ALE, alors qu'au chapitre de l'emploi ce secteur, déjà en déclin relatif, a connu une performance un peu plus faible que normale au cours de la période. Tout en remarquant que ces tendances sont en harmonie avec les prévisions faites avant la mise en place de l'ALE, M. Schwanen note qu'il n'y a aucune différence notable, tant au chapitre de l'emploi qu'à celui des salaires, entre la performance des industries les plus exposées aux changements amenés par l'accord et celles moins directement touchées.

En fait, dit M. Schwanen, on retrouve parmi les industries manufacturières moins directement touchées par l'ALE à la fois les secteurs ayant enregistré les meilleures performances au niveau de l'emploi et des salaires et ceux ayant connu les pires tendances. Entre-temps, les secteurs plus sensibles à l'ALE (ceux libéralisés par l'accord et ayant enregistré une croissance rapide soit des exportations, des importations, ou des deux à la fois), considérés dans leur ensemble, n'ont pas vu leur part de l'emploi manufacturier changer, alors que les salaires versés en moyenne dans ces secteurs ont en fait moins bien fait que dans les autres secteurs manufacturiers (mais tout de même mieux que ceux de l'ensemble de l'économie). Il est vrai, note M. Schwanen que certains secteurs des services sensibles aux échanges commerciaux ont connu une bonne croissance de l'emploi au cours de la période.

M. Schwanen conclut que, bien que l'ALE et l'ALENA n'aient pas eu les effets destructeurs sur l'emploi que certains avaient craint, ils n'ont pas non plus offert de remède pour la performance médiocre du Canada au chapitre de la compétitivité et de l'emploi. Des facteurs autres que le libre-échange nord-américain sont donc à blâmer pour les problèmes de faible croissance des emplois, de la productivité, et des salaires auxquels est confronté le Canada, ajoute-t-il.

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Trading Up:

The Impact of Increased Continental Integration on Trade, Investment, and Jobs in Canada

by

Daniel Schwanen

Canada and the United States have experienced exceptional growth in trade in sectors liberalized by their bilateral Free Trade Agreement (FTA). Data through 1995 confirm earlier results that growth in these sectors over the first seven years of the agreement exceeded that which occurred in bilateral trade in other sectors and in trade with other countries. Moreover, this strong performance cannot be fully accounted for by past trends, a strong US economy, or a lower Canadian dollar. Early signs are that the North American Free Trade Agreement (NAFTA) has allowed Canada to sustain exports to Mexico as well, despite that country's economic crisis.

Contrary to fears some people had expressed before the agreement was implemented, Canada's investment performance has been solid under the FTA. In particular, Canada has continued to attract a share of total North American business capital expenditures (whether domestic or foreign) that is equal to (as in the case of manufacturing, for example) or better than historical experience. Canada and the United States have, for each other, become relatively less important destinations for foreign direct investment (FDI), however, reflecting a greater focus on FDI flows toward other countries.

Canada's inadequate job creation performance in the 1990s cannot be blamed on free trade, as employment and wage trends in sectors most sensitive to the FTA have not had a markedly different pattern on these two counts than have other manufacturing sectors. However, wage increases in sectors affected by the FTA have not outpaced that of other manufacturing industries, suggesting that expected productivity increases have not yet been achieved in many cases.

Canada still has a problem with its overall productivity and earnings performance, which was expected to improve partly as a result of the FTA but which has not followed the boom in trade. The problem is not related to trade per se, however, since sectors in which bilateral trade was already free before the FTA have outperformed the overall economy in terms of job creation and wage increases.

Main Findings of the Commentary

- Since its implementation in 1989, the Canada-US Free Trade Agreement (FTA) has contributed to a sharp increase in trade between Canada and the United States. This increase is over and above what could have been expected from macroeconomic factors or past industry trends.
- Bilateral Canada-US trade grew more quickly in sectors liberalized by the agreement than in sectors not liberalized, and trade in the liberalized sectors also experienced faster growth than trade in all sectors with other countries. A number of industries, such as food products, chemicals, and clothing, experienced fast two-way trade growth, suggesting an increased degree of intra-industry specialization within North America.
- Mexico's economic crisis makes it difficult to judge the North American Free Trade Agreement's (NAFTA's) contribution to trade between Canada and Mexico, but it is clear that, as a direct result of the trade agreement, both of Mexico's NAFTA partners were better protected from the impact of the crisis than were non-NAFTA countries.
- Despite doubts expressed by some that Canada would remain an attractive investment location following the removal of the tariff "wall" after free trade, Canada's share of North American business fixed capital expenditures reached a record high immediately after the introduction of free trade. It has since settled closer to its historical average.
- Although US foreign direct investment (FDI) into Canada increased in dollar terms following the FTA, North America as a whole has not become a more attractive location for global FDI under the NAFTA, relative to other regions. Indeed, the importance of Canada and the United States in each other's FDI portfolio has been diminishing as overseas opportunities have taken up more of investors' attention.
- The commonly expressed view that free trade has contributed to Canada's employment problems does not find support in the data. The employment performance of sectors most sensitive to the FTA has not, in fact, deteriorated relative to total manufacturing employment. Sectors that continue to experience strong relative employment growth are those for which trade was already mostly free before the FTA, while sectors where employment has been the weakest, such as fish products or construction materials, are mostly facing non-FTA-related problems. Moreover, some trade-related services industries have experienced strong absolute employment growth since the pre-FTA period.
- Nevertheless, the FTA has not been a panacea for Canada's problems of low productivity and earnings growth. Although manufacturing wages have performed better than the average for the Canadian economy under the FTA, sectors that seem to have performed best in this respect are those that were already free before the FTA came into effect, while sectors newly exposed to the FTA have not fared as well (although still better than the average for the economy). The evidence suggests factors other than trade are likely at work in Canada's overall problem of slow growth in productivity and earnings.

Most Canadians are aware that their country's trade and investment relations with other nations have a significant impact on their economic prospects. Since 1989, they have seen the federal government implement three major trade agreements: the Canada-US Free Trade Agreement (FTA), the North American Free Trade Agreement (NAFTA, 1994), and the liberalizing measures flowing from the Uruguay Round of multilateral trade negotiations that created the World Trade Organization (WTO, 1995). While no similarly important initiatives are likely to appear before the end of the century, a number of other trade pacts involving Canada will be implemented, notably with Israel and Chile.

These recent agreements broke new ground in areas such as protection of investment, access to government procurement, the movement of business and technical personnel, and trade in some services. Some have interpreted Canada's vigorous pursuit of these "new" issues as a departure from traditional Canadian trade policy, which concentrated on negotiations on commercial barriers such as tariffs and quotas. But one can regard the expanded scope of trade policy as the dynamic response of Canada and other countries to the phenomenon of globalization. It is based on the view that a wider range of formal economic relations among trading partners is required, lest any one of them should see its desirability as an investment location diminish and its standards of living jeopardized.

Globalization was not, for the most part, created by governments. Rather, it can best be described as the result of a large number of actors in the private sector tapping new opportunities stemming from technological changes that have reduced the costs and increased the potential reach of transportation, telecommunications, and financial transactions (see box). In turn, these have permitted the emergence of a new international division of tasks and new investment opportunities through networks of suppliers, customers, ideas, and investors that transcend national boundaries.[1]

Globalization: An Illustration

The phenomenon of globalization is perfectly illustrated by the results of a recent investigation by the Los Angeles Times into the contents of a doll marked "Made in China" and selling for $9.99 in the United States. The doll was found to contain only 35 cents of Chinese value added. In reality, over $8.00 of the selling price remained in the United States in the form of paint (shipped to China where the doll is assembled), shipping, transportation, and wholesale and retail trade!* Thus, a country that stays out of the loop (by, for example, forbidding the entry of "foreign" products, services, investors, or technology) exposes itself to tremendous costs for its "own" firms and workers. There are no entirely "foreign" goods anymore, an observation that applies increasingly to services and investments as well.

* As reported by David Crane, "Where do Barbies come from?" *Toronto Star*, October 13, 1996, p. D2.

Nevertheless, responsibility for the perceived negative effects of globalization is often laid at the door of governments that have actively promoted their countries' participation in this loop through domestic regulatory reforms and international trade agreements. In particular, some people see globalization as meaning a loss of independence by their national governments *vis-à-vis* both other governments and the private engine of globalization — the multinational enterprise (MNE). Globalization's institutional incarnation, free trade, is often seen as the ultimate example of government's letting outside actors dictate economic and even social outcomes.

Free trade agreements such as the FTA, NAFTA, and WTO do forbid countries from discriminating against the goods, services, or businesses of their trading partners; in exchange, they receive the same treatment from other member countries. Such agreements also establish some minimum reciprocal standards of market access by, and treatment of, foreign nationals (for example, zero tariffs, no expropriation without compensation). They do not, however, impose other direct limits on

the policies a government can implement on its own territory. For example, they do not require — or, in many cases, even promote — harmonization in such important policy areas as education, municipal affairs, taxes and subsidies, social policy, the degree of state ownership, criminal law, defense, banking and consumer regulations, environmental policy, and policies toward nonmember countries.

Perhaps the most acute issue these agreements raise, therefore, is not whether they impinge on a country's sovereignty, since formally they do not — although they reflect a world in which raising barriers is costlier than ever before. It is not even whether they reduce the power of the state vis-à-vis that of the MNE, which is occurring (if at all) because economic output and standards of living depend more than ever on the development of international economic links that, by definition, are provided by the MNE. Rather, by promoting a country's taking on a more specialized role in its contribution to global economic output, these trade agreements inevitably modify the distribution of income within that country, between different types of labor and even between different types of capital, when either labor or capital are not fungible enough to meet new competition in the home market and/or take advantage of new opportunities abroad.

This issue is essentially the same as that posed by the introduction of technological changes. As historical evidence consistently shows, these changes actually improve general standards of living over the long run.[2] In the short run, however, they create winners and losers. The losers are workers whose skills become less marketable because their work can now be done more efficiently or cheaply by others, as well as firms that cannot face the new competition by upgrading or moving to lower-cost production facilities. The winners, on the other hand, are the purchasers of goods or services that are now available in greater abundance or more cheaply, and the workers and businesses that provide them.

The issue of changes in the distribution of income was particularly contentious in the case of the NAFTA, an in-depth commercial agreement among two developed economies and a much less advanced one. But it can also be raised in the context of free trade between economies that provide comparable standards of living but where each has sectors it wants to protect from the other country's more competitive industries — as the 1987–88 debate in Canada over the FTA demonstrated.

An open trade policy is necessary to prevent a country's average incomes from falling behind those of competitors with more open economies, which would be the likely outcome of attempting to maintain a level of trade protection that others have discarded. If they are to support open trade, however, Canadians must see that globalization and the trade agreements that codify it at the very least do not hurt the average citizen's economic prospects by not adversely affecting the country's long-run ability to employ all its workers and capital or to provide adequately for those unable to work or to find work at a living wage.

The FTA and the NAFTA, in particular, provide a clear window on the issues raised in Canada about globalization by both its proponents and detractors: What is the industrial impact of these agreements? Are they functioning as intended? Are they spurring investment in the signatory countries? Is Canada's still-wanting record on job creation and productivity related to the implementation of these agreements?

This Commentary attempts to shed some light on these questions. To do this, I use a key analytical tool in the form of a review of trade flows, since most predicted labor market or investment effects would show up in changing trade patterns. Thus, I update and enlarge data from my earlier work on Canada-US trade flows since the FTA came into effect in 1989.[3] (For Canadians, the NAFTA was not so much a new agreement as a continuation of the one in place since January 1, 1989. Thus, in most instances, the story of the first two years of the NAFTA is subsumed by the story of the sixth

and seventh years of the FTA, supplemented here by a look at Canada-Mexico trade flows under the NAFTA.) Since the ultimate impact of free trade (and of globalization more generally) must be judged by whether it makes Canada a better place in which to work and invest, I link the findings on trade to developments in fixed capital investment and in the Canadian labor market since the late 1980s.

I conclude that the FTA and NAFTA have made a significant contribution to the large increase in two-way trade between Canada and the United States since their inception, and that the shift in the pattern of bilateral trade is about what had been expected. Early evidence suggests that similar developments are occurring in trade with Mexico. Investment data show that, while Canada has maintained its relative position in North America with regard to new investment, it is now developing crossborder investment links more quickly with overseas countries than with its NAFTA partners. Free trade does not seem to have had much net effect on employment in manufacturing, although there is some evidence that employment patterns are shifting among sectors and that trade-related services jobs have done relatively well. While the manufacturing sector recently has done better in terms of wages and productivity than the average for all industries, this does not appear to be directly related to free trade, and Canada's overall performance on both counts remains the country's most perplexing economic issue.

Interpreting Trade Flows

If a free trade agreement is working as intended, it should be encouraging both a higher volume of trade and a greater degree industrial specialization in trade between the countries involved. To determine whether or not this is actually occurring, one of the best indicators to look at is trade flows. This is because the changes the agreement will bring to the economy more generally will most often correspond to some changes in the pattern of crossborder flows to begin with. This is where the key to the effects of free trade will most likely be found.

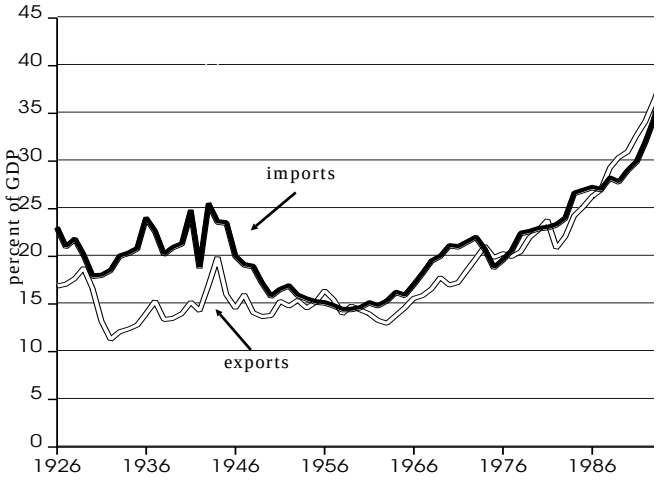
Individual firms may find that their trade levels remain unchanged by trade liberalization — perhaps because a firm has met imminent international competition by cutting costs. It is almost impossible for trade levels to remain unchanged for entire industries, however, even if those industries are on either side of the border, are located on the same competitive footing, and their customers do not differentiate according to the origin of the product. Firms or plants located on either side will expand into different product lines to benefit from economies of scale — that is, the free trade area will experience intra-industry specialization. Over time, if certain firms, product lines, or even entire industries within a country are unable to compete without requiring lower wage rates or lower rates of return on investment, they will stop attracting workers and capital and will disappear altogether, to be replaced by imports.

Of course, even at a time of sweeping trade liberalization, the level of a country's trade and the relative size of its exports and imports depend on many variables in addition to trade flows — such as changes in the country's exchange rate and overall economic growth in its trading partners — so it is important to be able to sort out their various impacts. Thus, in this section I sift through the detailed trade data to detect trends in Canadian trade since 1988 (the last year before the implementation of the FTA) that are consistent with the expected influence of the FTA and the NAFTA but that cannot be explained by a number of "control" or non-free-trade-influenced factors.

Merchandise Trade and Macroeconomic Developments

During the 1988–95 period, Canada's export performance was a singularly bright spot in an otherwise sputtering economy. Import growth was also strong over the period, in contrast to the experience of the Great Depression of the early 1930s and the more recent recessions of 1970, 1975, and 1982, when the share of

Figure 1: ***Canadian Trade Relative to GDP, 1926–95***



Source: Statistics Canada, CANSIM database on CD-ROM, September 1996.

Canada's demand satisfied by foreign goods dropped. Trade's upward trend as a share of gross domestic product (GDP) has been evident since the mid-1960s, but it accelerated at the same time as the FTA and NAFTA were being implemented (see Figure 1). Are these two phenomena linked?

Over the first seven years of the FTA, the US economy grew at a pace similar to that of western Europe and Japan, but significantly more slowly than the dynamic economies of Asia (see Table 1). At the same time, the purchasing power of the US dollar increased markedly against that of the Canadian dollar, but by less than that of other currencies on average. Yet, as Table 1 shows, the value of Canadian exports to the United States over the period increased at a significantly faster rate than exports to other countries. Canadian imports from the United States also increased at a rapid clip between 1988 and 1995, if not quite as quickly as exports. But although imports from the United States easily outpaced those from Europe or Japan, they did not rise markedly faster than imports from other Asian countries.

As a result, Canada's trade surplus with the United States rose by a whopping $44.2 billion over the seven years, reaching $59 billion in 1995 (representing 16.4 percent of total bilateral trade flows, compared with 7.9 percent in 1988.) Over the same period, Canada's trade deficit with the rest of the world increased by $13 billion, reaching $20.5 billion in 1995 (representing 15.9 percent of total trade between Canada and non-US countries, compared with 9.1 percent in 1988).

Canada-US Merchandise Trade since 1988: A Detailed Look

An important clue to extent to which the FTA and the NAFTA may have contributed to rapidly expanding trade between Canada and the United States comes from comparing changes in Canada's exports and imports in those sectors liberalized by the agreements with changes in sectors in which tariffs did not fall (mostly because trade had long been free in those sectors). A complementary clue is provided by comparing the changes in Canada's bilateral trade flows with the United States with changes in trade with non-NAFTA countries. The summary results of these comparisons are presented in Table 2 for merchandise trade. The sectoral details underlying the tables are presented in the appendix, in Tables A-1 through A-4.[4]

One of Table 2's salient features is that exports to the United States in liberalized sectors (other than crude petroleum and automobiles[5]) grew considerably faster than exports to that country in sectors not affected by free trade and exports to the rest of the world in both liberalized and unliberalized sectors. Moreover, the result is widespread, holding in 14 of the 16 liberalized export categories identified in Table A-2. In contrast, Canadian exports to the United States outpaced those from other countries in only 4 of 8 categories not liberalized by the FTA (excluding natural gas, which Canada exports only to the United States).

Imports show a similar trend, with those in sectors liberalized by free trade growing at a significantly faster pace than those in sectors

Table 1: ***Global Economic Trends and Canada's Exports and Imports by Region, 1988–95***

Percentage Change, 1988–95	United States	Europe (OECD)	Japan	Seven other Asian Countries[a]
		(percent)		
Real GDP	+14.9	+15.3	+17.6	+41.5
Canadian dollar purchasing power	–18.2	–34.9	–26.1	–27.3
Exports from Canada	+99.9	+36.6	+35.6	+82.7
Imports into Canada	+75.4	+37.6	+30.5	+68.3

[a] The seven Asian countries are Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand.

Note: Changes in Canadian dollar purchasing power are derived from each country's exchange rate (GDP-weighted index for Europe and Asia) and GDP deflator movements relative to Canada's, except for southeast Asian countries, where consumer price movements, weighed by GDP, were used.

Sources: *Federal Reserve Bulletin* (Board of Governors of the Federal Reserve System), February 1996; *World Economic Outlook* (International Monetary Fund), May 1996; *OECD Economic Outlook*, June 1996; Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (Ottawa, 1996); idem. *Imports, Merchandise Trade*, cat. 65-203 (Ottawa, 1996); verbal communication with Canadian Imperial Bank of Commerce, Economics Department; and author's calculations.

not liberalized, or than imports in either category from the rest of the world. Again, the superior performance of liberalized imports from the United States was broadly based, outperforming imports from the rest of the world in 15 out of 18 liberalized categories (identified in Table A-4). And again in contrast, US imports into Canada outpaced those from other countries in only 4 of the 9 import categories not liberalized (see Table A-3).

Table 2 reveals that a large increase in two-way Canada-US trade occurred in some liberalized sectors, such as meat, other food products, textiles, chemicals, and office equipment. In addition, Canadian exports to the United States registered fast growth in specialty papers, textile materials, industrial machinery, and various end products (mostly consumer goods), while US exporters were particularly successful in penetrating the Canadian market for clothing, furniture and furnishing, transportation equipment other than autos, and various household products.

Table 2 also shows the summary results for trade when some outlier categories are excluded — wheat and computers in the liberalized category, and natural gas in the non-liberalized category. Canadian wheat exports are almost exclusively concentrated in overseas markets, while, as indicated previously, Canada exports no natural gas to these markets. So including them in a comparison of Canadian performance in the US versus other markets might distort the results (there are virtually no Canadian imports of these commodities). With respect to computers, large declines in their prices give this category an extraordinarily large influence on movements of exports and imports measured in volume terms, which it would be suspect to attribute to free trade, especially since tariffs on these items were not very high to begin with. Although these changes reduce somewhat the calculated faster growth of bilateral trade relative to trade with other countries and of liberalized as opposed to nonliberalized trade, the modified numbers uphold the qualitative results of the original comparison.

Although the trade patterns as summarized above are consistent with the view that the FTA and NAFTA have benefited Canada, is this simply the result of coincidence? That is, has there been historically rapid bilateral trade growth in those commodities that happened to have also been liberalized by the agreements? Has there been faster growth in

Table 2: ***Canadian Exports and Imports by FTA Status, 1988–95***

	Value (in Canadian dollars)				Estimated Volume			
	To United States	To Other Countries	From United States	From Other Countries	To United States	To Other Countries	From United States	From Other Countries
					(percentage change)			
All exports	99.4	42.9			77.3	22.0		
All imports			74.9	66.6			67.5	62.0
Autos and parts	75.5	116.1	50.4	35.5	39.7	81.8	21.6	13.7
Crude oil	127.0	–70.9	–91.5	109.3	66.2	–78.7	–93.0	73.1
Other								
Liberalized by FTA	139.1	34.7	101.5	74.2	132.9	19.5	97.2	*76.6*
Excluding wheat, computers	133.5	47.0	103.0	67.2	97.9	27.6	64.4	37.0
Not liberalized by FTA	64.5	53.6	38.1	37.4	48.2	24.2	7.9	*37.0*
Excluding natural gas	60.6	53.6			31.9	24.2		

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); idem, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

US trade with all countries in liberalized sectors, which would show up as faster growth in Canada-US trade in those commodities?

I address these possibilities below by taking a more detailed look at the historical pattern of trade, broken down between liberalized and nonliberalized categories, and by examining changes in the comparative advantage of Canadian and US products in each other's market since the FTA came into effect.

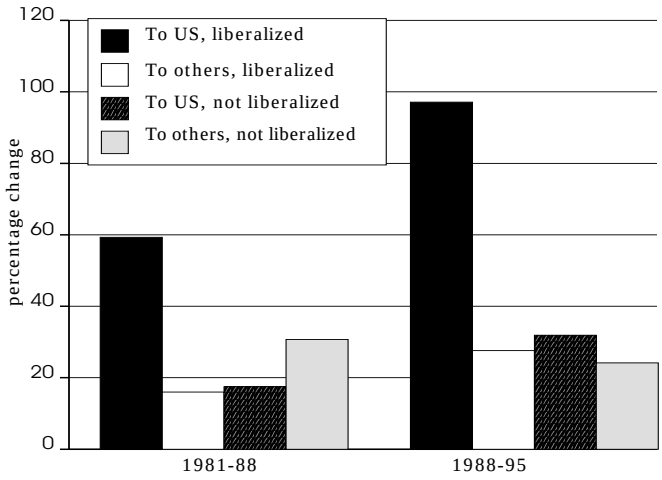
Comparison with the Pre-FTA Trend

This section traces the trends of certain export and import groupings over a fairly long period, during which significant changes in relative prices between various commodities took place. For this reason, I use estimates of the growth in the volume, rather than the value, of trade over the period.[6]

A comparison of the first seven years of the FTA and NAFTA with the seven years that preceded them shows that these agreements did, in fact, liberalize certain Canadian exports to the United States that were already growing quite quickly (see Figure 2).[7] However, these exports also showed a marked increase in growth (of almost 40 percentage points) after the FTA came into effect, whereas growth of exports of the same goods to other countries, and exports of other goods to the United States, rose less markedly (by fewer than 15 percentage points). (For reasons explained above, the figure excludes wheat, natural gas, and computers. If these were included, the comparison would be even more suggestive of the view that the FTA corresponded with accelerated export growth.)

Imports exhibit a somewhat different pattern (see Figure 3). Here, growth for the group of products liberalized by the FTA also increased after it came into effect. Although the acceleration (about 20 percentage points over the period) was not as large as that of liberalized exports, this may not be significant since the volume of all exports increased by 17 percentage points more than imports during the pre-FTA (1981–88) and post-FTA (1988–95) periods. Although the increase in liberalized

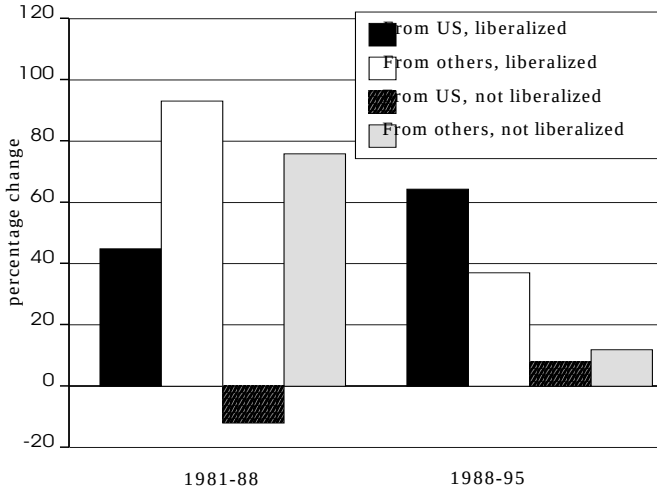
Figure 2: ***Change in Canadian Export Volumes, Pre- and Post-FTA***



Note: Data exclude exports of wheat, natural gas, and computers.

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); idem, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

Figure 3: ***Change in Canadian Import Volumes, Pre- and Post-FTA***



Note: Data exclude imports of computers.

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); idem, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

imports from the United States stands in sharp contrast to the deceleration in Canadian imports from other sources, some of the latter may be explained by the sharper depreciation of the Canadian dollar's purchasing power against non-US currencies.

In sum, the growth in bilateral Canada-US trade in products liberalized by the FTA has been exceptional since the agreement came into effect. While some of this growth clearly should be attributed to macroeconomic factors and long-term industrial trends, trade liberalization seems to have had an additional positive impact.

Comparative Advantages of Canadian and US Goods

Another way to capture the change in the pattern of Canada-US trade resulting from the FTA and NAFTA is to use a measure of "revealed comparative advantage" (RCA) of Canadian exports into the US market and of US exports into Canada. This measure not only usefully abstracts from Canadian exports generally having sharply outpaced imports, which is probably due in large part to macroeconomic factors, but it also accounts for the possibility that either country coincidentally may have gone on a global buying binge for those items liberalized by free trade during the 1988–95 period. By the same token, however, this measure would not by itself explain the accelerated growth in the overall volume of bilateral trade.

Revealed comparative advantage can be explained as follows: the RCA that, say, country A has in a particular product sold in country B is calculated as country A's share of country B's imports of that commodity divided by country A's share of country B's total imports. Thus, if (as was roughly the case before the FTA) 14 percent of US food imports came from Canada, while Canada's share of all US imports was 18 percent, Canada would register an RCA measure (relative to other commodities) of

(14/18) = 0.78 for food in the US market. In this example, a measure of less than one suggests that Canada does not have a comparative advantage in the US market in food (a country's RCA for all its exports in a foreign market always average to 1.00).

Trade barriers in a foreign market may hide a country's true RCA. In the example above, the RCA of less than one for food may be due to this particular commodity grouping's being protected against foreign competition more than others in the United States, which would tend to bias Canada's RCA in food products in the US market. As a result, it would be useful to see whether trade liberalization actually shifted Canada's and the United States' RCA in each other's markets more toward liberalized products.

Table 3 shows the United States' RCA in the Canadian market as it stood in 1981, 1988, and 1995 for the same commodity groupings used in the analysis above of liberalized and nonliberalized trade.

Of the 18 product groupings exported by the United States and liberalized by the FTA, 15 saw their RCA in the Canadian market increase, with particularly large gains in meat products, textile materials, steel, clothing, furniture and furnishings, and various other household goods. In contrast, during the pre-FTA period of 1981–88, only four groups recorded such an increase. The mirror image of this is that, of the nine import categories not liberalized by the FTA, only four experienced an increase in their RCA in Canada, whereas US automotive products and crude oil continued to see their RCA decline. These numbers are consistent with the view that the FTA had an impact on import patterns that favored liberalized products, turning around what for many products had been a relative decline in the Canadian market in the 1980s.

Table 4 shows that, of the 16 categories of exports liberalized by the FTA, 12 showed an increase in Canada's RCA under free trade, whereas only seven did so in the period before free trade. Canada's RCA dropped in six of the nine nonliberalized categories under the FTA, although this seems to be further evidence of the ongoing decline in the relative advantage of Canada's natural resources (which form the bulk of the nonliberalized categories) in the US market.

Another notable feature of Table 4 is the strengthening of Canada's RCA in automotive products and crude oil. In the case of autos, this result once again belies fears that the FTA, by implicitly modifying the incentive structure built into the 1965 auto pact, would remove vital protection for this sector. In the case of crude oil, this continues a trend already well established in the 1980s that permitted Canada's natural advantage in this sector to play out by limiting restrictive measures.

Canada-US Trade in Services

The FTA removed few existing restrictions to trade in services, and even in the many areas where liberalizing commitments were made, these were to apply only to new measures, not existing ones, which were automatically grandfathered. In contrast, the NAFTA's commitments to liberalize trade in services were meant to be more encompassing, applying to any sector or measure not specifically excluded, although this covers much of what was already implicitly exempted in the FTA.

In short, the FTA and the NAFTA only liberalized trade in services at the margin, although they did include commitments for further liberalization, and their provisions on the temporary entry of business people probably did much to promote the bilateral movement of business, professional, and technical personnel. That the agreements probably did not have much impact in the aggregate is indicated by Table 5, which shows not only that growth in two-way services trade slowed down after the FTA, but also that the slowdown was more pronounced in sectors "liberalized" by the agreement than in those not directly affected by it.

In fact, in the post-FTA period, Canada's services trade (both exports and imports) with other countries accelerated sharply in sectors liberalized by the FTA. This apparently sur-

Table 3: ***The United States' "Revealed Comparative Advantage" in the Canadian Import Market, by Commodity Group, 1981, 1988, and 1995***

Commodity Group	1981	1988	1995
	(1.00 = US share of Canadian import market for all commodities)		
Not liberalized by the FTA/NAFTA[a]	1.20	1.09	1.11
Crude food and feed	0.96	0.87	0.83
Other crude materials	1.11	1.15	1.15
Fabricated products	1.21	1.20	1.16
Industrial machinery	1.18	0.95	0.98
Agricultural machinery	1.31	1.09	1.13
Aircraft	1.33	1.01	1.11
Medical and safety equipment	1.22	1.19	1.13
Printed materials	1.27	1.30	1.28
Other transactions	1.29	1.21	1.24
Liberalized by the FTA/NAFTA[a]	0.97	0.90	0.95
Meat and dairy products	0.59	0.69	0.88
Fresh fruits and vegetables	0.93	1.11	1.04
Processed food, beverages	0.64	0.58	0.84
Crude materials	1.03	1.20	1.15
Textile materials	0.83	0.71	0.86
Chemicals	1.15	1.09	1.15
Petroleum products	0.84	0.79	0.83
Steel	0.66	0.56	0.86
Basic fabricated metal	1.15	1.13	1.14
Other fabricated materials	1.12	1.02	1.14
Industrial machinery	1.12	0.98	1.06
Transport equipment, excluding autos	0.75	1.02	1.09
Office and telecommunications equipment	1.11	0.94	0.81
Other equipment	1.19	1.12	1.13
Clothing	0.18	0.10	0.23
Furniture and furnishings	0.89	0.77	1.03
Other household goods	0.56	0.53	0.67
Other end products	1.01	0.88	0.94
Crude oil	0.21	0.05	0.01
Automobiles and parts	1.29	1.25	1.20

[a] Constant 1988 commodity weight.

Sources: Statistics Canada, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

prising development is the result of a number of countries' having opened up their services sectors to foreign competition during the period, whereas the global regime for trade in goods remained fairly static.

Of course, trade in some sectors did follow the expected pattern (as we have seen, in goods the trend for liberalized sectors was more uniform), so these would appear to be the areas in which the FTA and NAFTA have had some impact. In particular, this may apply to Canadian exports to the United States of communications, architectural, engineering, and other technical services, which registered a marked acceleration over the 1988–94 period, as well as faster growth rates than similar exports to

Table 4: ***Canada's "Revealed Comparative Advantage" in the US Import Market, by Commodity Group, 1981, 1988, and 1995***

Commodity Group	1981	1988	1995
	(1.00 = Canadian share of US import market for all commodities)		
Not liberalized by the FTA/NAFTA[a]	1.83	1.59	1.67
Natural gas	4.69	5.29	4.92
Other energy, excluding crude oil	1.03	0.91	1.74
Other crude products	0.28	0.28	0.36
Lumber	5.32	5.11	4.68
Pulp and newsprint	5.53	5.05	4.71
Fertilizer	3.39	2.45	1.79
Agricultural machinery	2.27	1.33	1.07
Ships, aircraft, and parts	1.71	1.24	1.37
Other end products	0.62	0.46	0.31
Liberalized by the FTA/NAFTA[a]	0.71	0.62	0.74
Meat and dairy products	0.89	1.34	2.10
Fish	1.45	1.19	0.86
Other foods and feeds	0.29	0.58	1.10
Beverages	0.88	0.84	0.82
Other crude materials	1.92	2.28	2.24
Wood-fabricated materials	2.36	2.49	2.63
Paper, excluding newsprint	3.15	2.23	2.84
Textile materials	0.18	0.36	0.69
Chemicals	1.07	0.98	0.77
Chemical products	0.90	1.08	1.54
Iron and steel	1.39	0.93	1.01
Other basic products	1.01	0.96	1.12
Industrial machinery	0.68	0.44	0.61
Office and telecommunications equipment, precision instruments	0.51	0.34	0.36
Other equipment and tools	0.20	0.31	0.93
Other finished goods	0.40	0.33	0.44
Crude oil	0.18	0.63	0.74
Automobiles and parts	1.95	1.81	1.86

[a] Constant 1988 commodity weight.

Source: United States, Department of Commerce, Bureau of the Census, Foreign Trade Division, *US Imports from Canada by End-Use Commodity Classification*, special compilation on CD-ROM, January 1997.

other countries. The same can be said of Canadian imports of US management and advertising services.

Trade with Mexico

An assessment of the impact of the NAFTA on Canada's trade with Mexico can be only tentative at this point, for at least two reasons.

First, Mexico's economic crisis, although not triggered by the NAFTA, certainly demonstrated the point many experts made that Mexico was the most exposed partner in the deal and that the structure of its economy would have to undergo significant changes before capturing the advantages of free trade. While Mexico's economic growth and standards of living are expected to benefit substan-

Table 5: ***Canada's Trade in Commercial Services in the Pre- and Post-FTA Periods***

	Exports		Imports	
	Pre-FTA, 1982–88	**Post-FTA, 1988–94**	**Pre-FTA, 1982–88**	**Post-FTA, 1988–94**
	(percentage change, in current Canadian dollars)			
To/from the United States				
Total commercial services trade	171.8	55.8	89.4	57.5
Liberalized by the FTA	218.9	70.6	121.1	63.5
Not liberalized	123.9	37.0	49.8	47.3
To/from other countries				
Total commercial services trade	100.2	85.7	82.2	82.3
Liberalized by the FTA	54.6	81.0	67.3	107.5
Not liberalized	178.1	67.2	121.6	26.2

Sources: Statistics Canada, *Canada's International Transactions in Services, 1994/95; 1995/96*, cat. 67-203; and author's calculations.

tially in the long run, the country's current poor macroeconomic situation makes a proper reading of the NAFTA's impact impossible. The peso was overvalued in the first year of the NAFTA's implementation, while Mexico's overall economic activity was clearly below potential in the second and third years because of the crisis caused by the peso's devaluation.

The second reason it is difficult to assess the impact of the NAFTA on Canada-Mexico trade is that the NAFTA's provisions respecting Mexico were to be implemented more slowly than those of the FTA respecting Canada and the United States. Three years into the agreement is too soon to assess, on the basis of trade flows, whether the expected restructuring of Mexico's economy is actually occurring.

To these two reasons must be added a third: since virtually all of Canada's pre-NAFTA exports to Mexico faced trade barriers, and many still do, the analysis I conducted above for the United States, with the use of a control group consisting mostly of trade liberalized long ago, cannot be replicated for Mexico.

With these caveats in mind, however, I will make a few observations.

Canada's exports to Mexico rose by 39 percent (in Canadian dollar terms) during the 1993–95 period, very nearly the same rate of growth as in the two years preceding the NAFTA. This increase is slightly faster than that of Canada's exports to the United States over the same period, but exports to non-NAFTA countries increased even more rapidly. Still, this represents a good performance in the Mexican market, given that Mexico's imports from all sources dropped precipitously in 1995 (US exports to Mexico rose by only 11 percent in US dollar terms between 1993 and 1995). Canadian exports of textile materials, chemical products, and industrial machinery to Mexico more than doubled over the period, albeit from a small base. (It should also be noted that, in May 1995, Mexico raised tariffs to 35 percent on a large number of goods imported from non-NAFTA countries, an increase that Canada and the United States were spared.)

Canada's imports from Mexico rose by 44 percent between 1993 and 1995, considerably more than imports from the United States or from other sources (33 percent each). However, this growth rate was exactly the same as that for imports from Mexico during the two years preceding the NAFTA, when Mexican imports also outpaced those from other sources. It is also less than the post-NAFTA increase in

Mexico's exports to the United States (54 percent in US dollar terms), which is perhaps not surprising given that the barriers most Mexican products faced in Canada were already quite low. Interestingly, while the pre-NAFTA growth in Mexican imports was concentrated in non-resource-based products, the reverse has been true since 1993, with sharp increases registered in imports of agricultural machinery, meat, processed food and beverages, textile materials, most chemicals, steel, and a variety of crude and semifinished industrial materials, in addition to such non-resource-based products as agricultural machinery and transportation equipment other than autos and aerospace products.

Canadian exports of commercial services to Mexico remain small — $73 million (less than 1 percent of total Canadian exports of such services) in 1994, the first year of the NAFTA and the most recent year for which statistics are available. Although this represents an increase of about 25 percent over the pre-NAFTA year of 1993, it is unremarkable compared with the more than 200 percent increase in Canada's overall export of commercial services since 1991. For its part, Mexico exported to Canada commercial services worth $61 million in 1994, up 45 percent from 1993 and almost 60 percent from 1991.

Trade Patterns: Summary

In summary, trade between Canada and its NAFTA partners underwent significant changes following the introduction of the FTA and the NAFTA. Canadian and US producers increased their specialization in each other's markets in sectors liberalized by the agreements. These sectors also seem to have contributed to growth in overall trade volumes between the two countries, since growth there has led that of all other sectors as well as trade with other countries in all sectors. However, the increase in trade-driven integration between Canada and the United States seems to have largely tapered off, with the growth in bilateral trade no longer outpacing that of trade with other countries as of 1994. It is also probable that the NAFTA helped to maintain the growth of Canadian exports to Mexico despite the latter's economic crisis, although Mexican goods do not appear to have penetrated the Canadian market beyond the pre-NAFTA gains they were already making. Thus, on the basis of trade flows, at least, the trade agreements seem to have functioned largely as intended.

Investment

The reduction of trade barriers under free trade was expected to lead to more efficient use of existing operations on either side of the Canadian-US border by increasing the two countries' volume of, and specialization in, international trade. The trade data since 1989 suggest that this has, in fact, happened, and many large corporations now plan their activities on a North American, if not global, scale.[8] If Canada is to sustain any gains stemming from the FTA and the NAFTA, however, it must continue to attract, or even increase, its share of investment in new plants and equipment in an environment of open trade.

To the extent that free trade has had an impact on the private sector's expenditures of fixed capital on plants and equipment, it would have come about through two channels. First, there would have been a "front-line" reaction from firms on either the winning or losing sides of the removal of tariff and nontariff barriers. Second, it would have been encouraged by the greater ease of crossborder investment activity itself (notably through reduced screening of foreign direct investment [FDI]), by the removal of barriers to the presence of foreign firms in the services sector, by the introduction of better protection of investments (for example, against expropriation without fair compensation), and by the removal of barriers to activities that typically complement foreign investment (notably, the movement of business and technical personnel).

The combined impact of these two effects is, however, ambiguous. The disappearance of tariffs certainly removed an historically key

incentive for some firms (both domestic or foreign) to serve the Canadian market with goods produced in Canada, and hence a key incentive for such firms to invest in maintaining production in Canada. Presumably, this incentive had once been needed to offset lower manufacturing costs elsewhere. While free trade also offered Canadian-based firms greater access to the US market, there were fears that the net incentive would be negative since, on average, US tariffs were lower than Canadian ones.

It was also feared that remaining barriers — notably, the continuing ability of each country to block imports through the use of antidumping and countervailing duties — would bias investment decisions in favor of the United States, as firms sought to reduce the risk of being subjected to these duties in the larger market, where they would hurt the most.

On the positive side, given that the US market is ten times the size of Canada's, any Canadian "winner" under the agreement would be expected to invest more aggressively than would the typical US industry benefiting from the agreement, particularly to capture potential economies of scale. As well, for industries that are heavy users of imported goods, such as machinery, the removal of import tariffs would have increased the attractiveness of a Canadian investment location.

Less cheeringly, it was also expected that many Canadian firms, despite higher labor costs and/or lower productivity than their competitors in other NAFTA countries but nevertheless surviving behind a tariff wall, would meet the removal of protection by substituting capital for labor. This would boost capital investment in more efficient machinery and plants and reduce labor costs through layoffs.

The expected net effect of free trade on capital expenditures, in other words, was not clear. Indeed, the change in business investment that would follow from trade liberalization was commonly assumed, or deduced, from surveys of investment intentions — even though small changes in such expenditures can have a large influence on the ultimate benefits of liberalization.[9]

It was also not clear what effect free trade would have on crossborder flows of FDI, since FDI can be either a substitute or a complement to trade. To the extent that free trade permitted firms to sell in a particular market without having to produce there as well, crossborder investment could ease. To the extent that an open border encouraged specialization on a North American scale within large firms or network of suppliers (to take advantage of each country's strengths) and to the extent that firms needed to be present in a market in order to serve it (as is the case for many services industries), then free trade could also spur FDI.

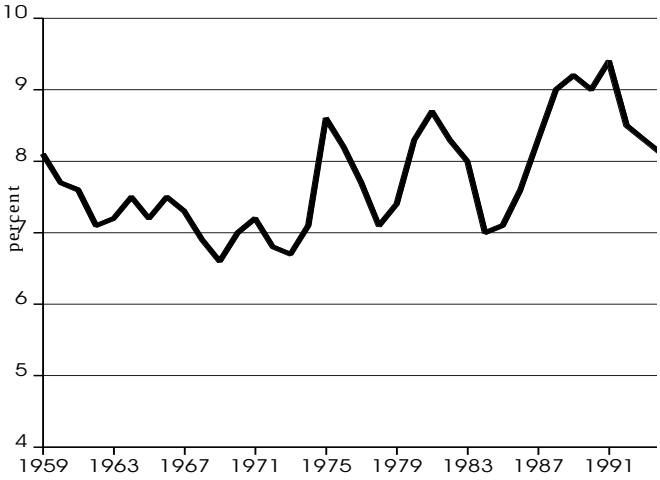
The FTA and NAFTA may also have encouraged global investment to be directed increasingly toward North America as a whole, either to take advantage of better economic prospects here or, less encouragingly, because trade barriers may have increased for some non-NAFTA products, inducing producers to locate within the free trade zone.[10] However, the net effect here would also depend on changes in the relative attractiveness of other parts of the world for FDI.

Given these imprecise expectations and the fact that private sector fixed investment is particularly vulnerable to the business cycle, it is difficult to attribute specific investment trends to the FTA or NAFTA. In the sections below, I nevertheless attempt to sketch how some of these trends could better inform the evaluation of these agreements.

Has Investment Fled Canada?

Canada's share of total private sector nonresidential capital expenditures in North America (including Mexico) is now at about its average level of the past 15 years, and somewhat above the average of the 1960s and 1970s, when Canada's manufacturing sector was protected by a higher tariff wall (see Figure 4). In fact, Canada's share of private fixed investment in North America remained at or near record levels during the first four years of the FTA —

Figure 4: ***Canada's Share of North American Private Fixed Investment, 1959–96[a]***



[a] Percent of total in constant 1992 US dollars.

Sources: Statistics Canada, CANSIM database on CD-ROM, September 1996; *Survey of Current Business* (US Department of Commerce), January-February 1996, December 1996; *OECD Economic Outlook* 59, June 1996; International Monetary Fund, *World Development Report 1983* (Washington, DC: IMF, 1984); and author's calculations.

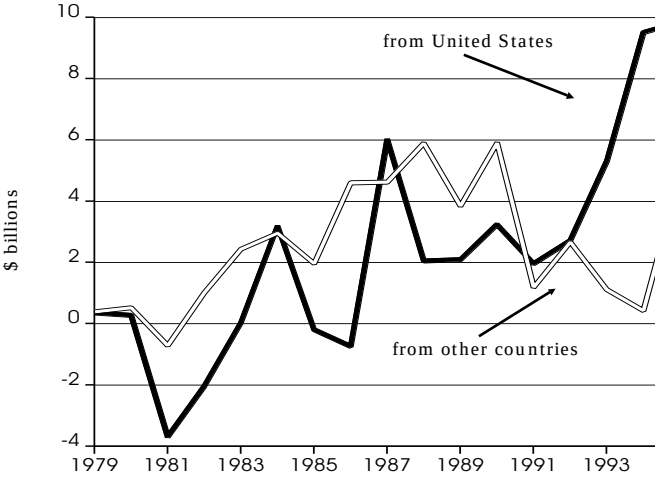
and even higher than the levels reached during the commodity-induced investment booms of the mid-1970s and early 1980s. The drop since 1993 is likely a cyclical phenomenon: in the late 1970s and mid-1980s, Canada's share of private fixed investment also dropped sharply during periods of faster growth in the US economy, just as it has in recent years. On aggregate, therefore, there is no evidence that Canada is viewed as a less attractive place to invest, although there has been a massive shift away from investment in new plants and toward machinery and equipment, which suggests a large initial effort toward cost competitiveness rather than expansion during the period.

Two-Way Investment Flows

Since the FTA's implementation, the annual flow of US direct investment into Canada has increased to new heights, while the flow from other countries has remained around historical levels (see Figure 5). This phenomenon may be related to the fact that US FDI is more concentrated in manufacturing than is FDI from non-US sources, and any increase in crossborder investment as a result of free trade would probably affect manufacturing more than services. As well, many of the FTA and NAFTA provisions that eased crossborder investment flows did not apply to investors from non-NAFTA countries.

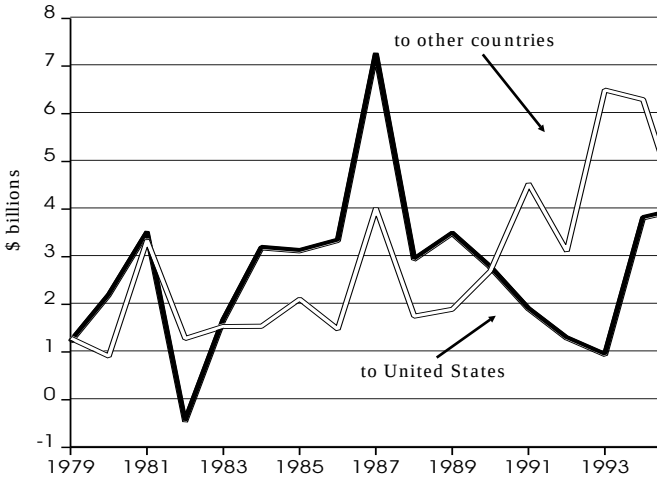
In contrast to the increased flow of US direct investment into Canada, the flow of Canadian direct investment into the United States has stagnated; indeed, it is direct investment by Canadians in countries other than the United States that has increased sharply in recent years (see Figure 6). One possible reason for this is that Canadian manufacturers have judged that they can serve the US market adequately from their home base. In any event, these patterns suggest there is little cause to fear an outflow of direct investment from Canada on account of bilateral trade liberalization.

Figure 5: ***Foreign Direct Investment in Canada, Annual Flows, 1979–95***



Source: Statistics Canada, CANSIM database on CD-ROM, September 1996

Figure 6: ***Canadian Direct Investment Abroad, Annual Flows, 1979–95***



Source: Statistics Canada, CANSIM database on CD-ROM, September 1996.

ble pattern is difficult to discern, if only because the breakdown of industries is not refined enough to allow a neat division between those liberalized by the FTA and those that were not.

Even if one excludes the paper and allied, printing and publishing, and transportation equipment sectors on the grounds that they were mostly not directly affected by the FTA (although trade with Mexico was liberalized in these products as a result of the NAFTA), one is left with a modest decline of 11.6 percent to 10.9 percent of total nonhousing investment in Canada for the remaining sectors between the two periods. This is not outside the range of normal historical experience during recessionary times.

Sectoral Shifts in Business Capital Expenditures

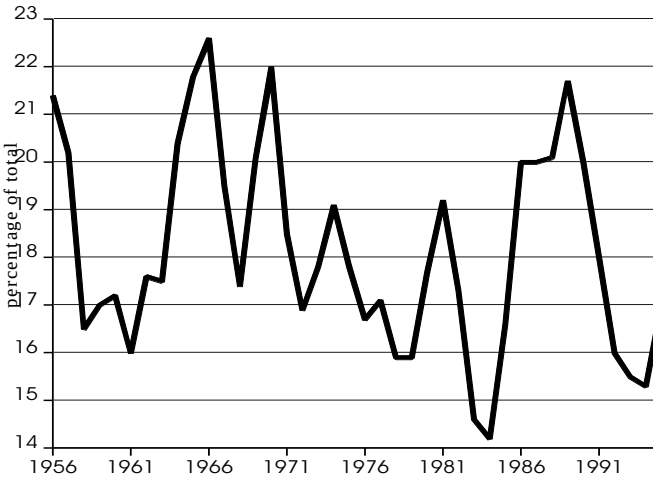
While the private sector does not seem to have reduced its propensity to invest in Canada post-FTA, what of investment in the manufacturing sector, the front line of trade barrier reduction? Figure 7 shows the manufacturing sector's share of total nonhousing capital expenditures in Canada. There was a sharp decline in that share in 1991–92, but this was well after the FTA came into effect. And although there is often a considerable lead time before capital expenditures come on stream, I do not believe one can attribute the drop to the FTA given the buoyant levels of capital expenditure in manufacturing during the late 1980s and in 1990, when business was well aware that the FTA was on the horizon. Moreover, manufacturing investment as a share of total investment in the economy has been declining historically in any event.

A more puzzling result is that there are few major changes between the seven years preceding and the seven years following the FTA in the share of manufacturing investment accounted for by broad industry groups (see Table 6). The meaning of this apparently sta-

North America as an Investment Destination

A final consideration with respect to investment concerns North America's attractiveness as an investment location. Figures 8 and 9, which contrast the share of world FDI flows into North America during the four years before the FTA with the share coming during the

Figure 7: ***Manufacturing's Share of Nonhousing Capital Expenditures, 1956–95***



Sources: Statistics Canada, CANSIM database on CD-ROM, September 1996; and author's calculations.

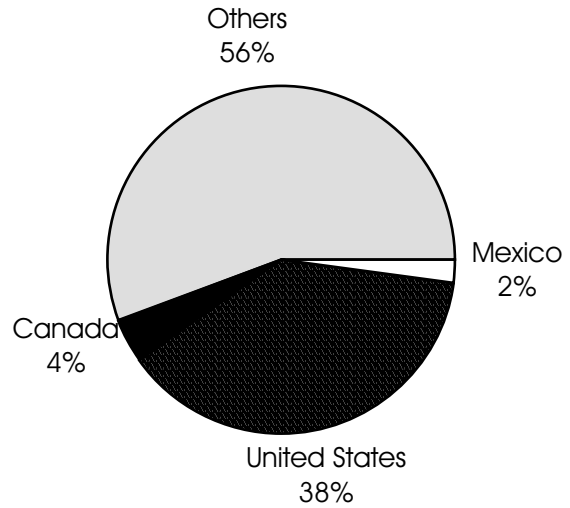
Table 6: ***Share of Canadian Manufacturing Capital Expenditures, by Industry Group, 1982–88 and 1989–95***

	Average, 1982–88	Average, 1989–95
	(percent)	
Food and beverages	9.4	8.9
Rubber and plastics	2.8	3.5
Textiles	1.9	1.7
Clothing	0.5	0.6
Wood products	4.4	4.8
Furniture	0.5	0.5
Paper and allied products	18.2	21.3
Printing and publishing	2.5	3.3
Primary metals	11.8	11.0
Metal fabricating	3.9	2.5
Machinery	2.8	2.3
Transportation equipment	14.7	16.7
Electrical equipment	4.5	4.2
Nonmetallic minerals	2.4	2.4
Petroleum and coal products	5.9	4.2
Chemicals and chemical products	11.7	10.0
Miscellaneous	2.1	2.1
Manufacturing as a percentage of private and public capital spending	17.8	18.6

Note: Pre- and post-1992 data are not precisely comparable since Statistics Canada converted from the 1970 to the 1980 Standard Industrial Classification during the survey period.

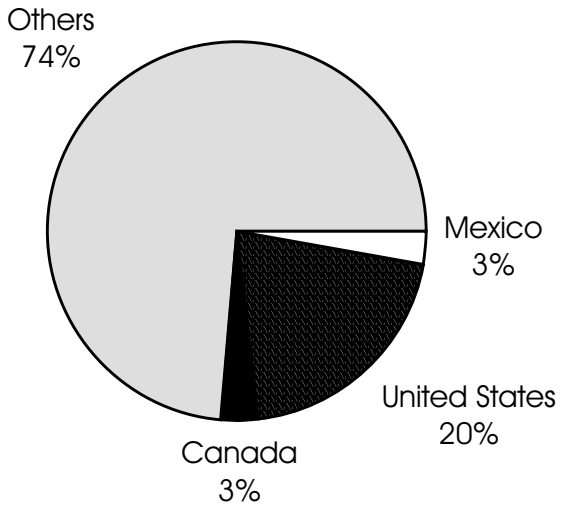
Source: Statistics Canada, CANSIM database on CD-ROM, September 1996.

Figure 8: ***Pre-FTA Shares of World FDI Inflows, 1984–88***



Source: United Nations Conference on Trade and Development, *World Investment Report 1996* (New York; Geneva: UNCTAD, 1996).

Figure 9: ***Post-NAFTA Shares of World FDI Inflows, 1994–95***



Source: United Nations Conference on Trade and Development, *World Investment Report 1996* (New York; Geneva: UNCTAD, 1996).

first two years of the NAFTA, suggest that North America is now a relatively less attractive FDI destination than it was before the FTA came into effect! In absolute terms, inflows of FDI have actually increased (from an annual average of US$51 billion before the FTA to an estimated US$78 billion in 1995), but there has also been an explosion of FDI aimed at other countries, particularly in southeast Asia and western Europe. However, since the NAFTA came into effect, both Canada and Mexico have attracted a somewhat higher share of FDI into North America than either of them did in the pre-FTA period.

Investment: Conclusion

The FTA and the NAFTA do not seem to have coincided with major shifts in either the amount or the industry pattern of business capital spending in Canada. Perhaps this is not surprising, given Aileen Thompson's conclusion that the FTA seems to have had a generally modest sectoral impact on the Canadian stock market.[11] However, her evidence and that presented here certainly do not rule out the possibility that considerable shifts in investment patterns have taken place within broadly defined industries.

With respect to FDI, the record inflow of US direct investment into Canada in recent years has more than offset the indifferent pattern of FDI from other countries and the increase in Canadian FDI to non-US destinations. It is this US investment that is responsible for Canada's increased share of FDI inflows within the NAFTA as a whole, although the three NAFTA countries are attracting a smaller share of global FDI than they did in the mid-1980s.[12]

In short, on aggregate, free trade does not appear to have reduced — or to have sharply increased — investment in Canada. The post-FTA era has coincided with increased returns on investment — that is, each dollar invested in Canada has yielded a richer reward because of the more productive use to which it is put. In this vein, the Organisation for Economic Co-operation and Development (OECD) reports that the rate of return on capital in the Canadian business sector rose to 19.2 percent in 1995, compared with an average of 18.6 percent in the 1980s and 17.6 percent in the 1990–94 period, and as high as it was through the boom period of 1987–89. Whether this is related to the FTA is not clear, however, since Canada's position relative to other OECD countries has remained static in this respect since 1988.

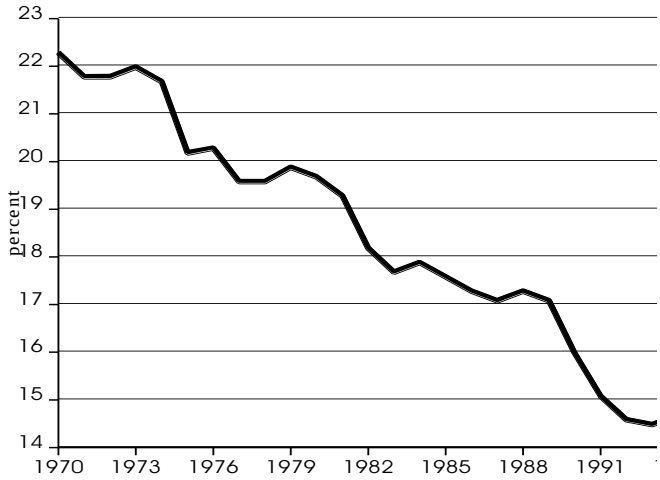
Jobs

There is an ongoing debate in Canada and elsewhere over whether globalization, as epitomized by freer trade and capital flows, has contributed to recent problematic trends in labor markets. In Canada since 1989, these trends are sluggish growth in employment and average real incomes, a relative decline in the employment and wages of lower-skilled individuals, an increase in the duration of unemployment, and a decline in the labor force participation rate among certain groups, notably the young and those over age 55.

Plausible explanations for these trends fall into a few key categories: technological change; macroeconomic policies; supply-side factors in the labor market, such as inadequate incentives or training; and freer trade and investment. Some analysts argue that the last of these, by allowing the duty-free entry of products from low-wage countries, causes job losses as firms move to take advantage of cheaper labor and downward pressure on wages, particularly in industries employing less-skilled workers in rich countries.

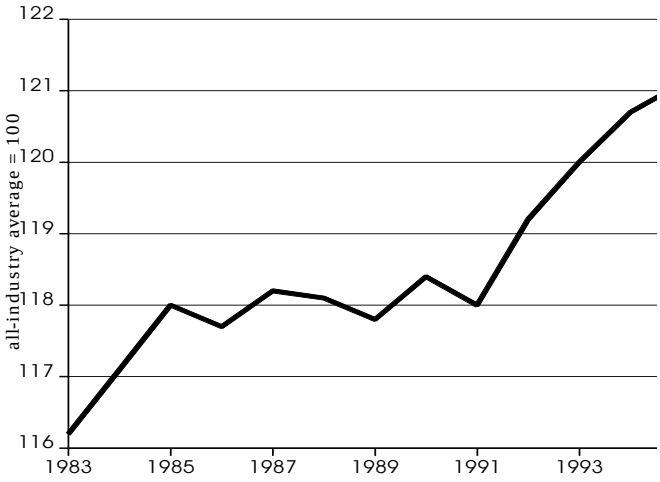
Labor supply factors cannot fully explain rising wage inequality over the space of just a few years. Changes in the demand for labor must have played a part; indeed, there is evidence that technological change is biased in favor of skilled workers, and wage differentials between skilled and unskilled workers are widening in many industries. But the role of freer trade is still not clear. For example, if the gains from trade arise through interindustry specialization, there will be downward pres-

Figure 10: ***Manufacturing's Share of Total Employment, Canada, 1970–95***



Sources: Statistics Canada, CANSIM database on CD-ROM, September 1996; and author's calculations.

Figure 11: ***Canadian Manufacturing Wages, 1983–95***



Sources: Statistics Canada, CANSIM database on CD-ROM, September 1996; and author's calculations.

sure on the relative remuneration of the factor used more intensively in the production of goods that suddenly become more easily available — in rich countries, this would happen to less-skilled labor. But if gains arise from economies of scale rather than comparative advantage, then the advantages of greater productivity can be spread over all factors of production, including less-skilled labor. In the following section, I attempt to identify whether the FTA and the NAFTA might have contributed to some of these labor market trends.

Broad Trends in Manufacturing

The decline in manufacturing as a share of total employment became a feature of the economic picture well before the FTA was implemented (see Figure 10). Canada saw a large drop in manufacturing employment, relative to other sectors of the economy, in two previous recessions, when the economy did not face trade-liberalizing exercises of the FTA's magnitude. During the 1970–75 period, which included two sharp economic slowdowns, and again during the 1978–83 period, which included a severe recession, this share fell by two percentage points, with no noticeable recovery in the following years.

That there was a significant decline during another recession, that of 1990–92, is not surprising, but since the decline was worse than during the two pre-FTA episodes (2.6 percentage points), it seemed to confirm the fears of FTA opponents — had the 1990–92 experience been comparable to the earlier periods, some 70,000 more manufacturing jobs would have remained than actually did.

On the other hand, since 1988, average weekly earnings of Canadians employed in manufacturing have increased by 3 percent over and above weekly earnings in the overall economy (Figure 11), indicating that those who remain employed in the manufacturing sector are faring better under free trade than their counterparts in other sectors. Is there evidence that either the job losses or the earnings gains are related to free trade?

Free Trade and Manufacturing Jobs

To shed light on this question, I use employment and wage trends over the 1983–95 pe-

Table 7: ***Relative Trends in Canadian Manufacturing Employment and Wages According to Industry Sensitivity to the FTA, 1983, 1988, 1995***

Type of Sector	Share of Manufacturing Employment			Weekly Wage		
	1983	1988	1995	1983	1988	1995
	(percent)			*(total manufacturing = 100)*		
FTA-sensitive	56.6	57.1	57.0	92.8	92.5	91.5
Rapidly expanding exports	18.1	18.7	19.7	101.0	102.5	101.6
Rapidly expanding imports	23.8	23.7	22.5	86.6	84.2	82.9
Rapidly expanding exports and imports	14.7	14.7	14.8	92.8	92.9	91.0
FTA-nonsensitive	43.4	42.9	43.0	109.3	110.1	111.3
Already largely tariff free	19.2	19.6	21.2	119.8	120.6	123.2
Still protected	4.3	4.6	5.0	94.9	96.6	93.6
Liberalized, but slow trade growth	20.0	18.7	16.8	102.4	102.4	101.7

Sources: Statistics Canada, CANSIM database on CD-ROM, September 1996; and author's calculations (see Table A-6 for a list of industries).

riod, using the breakdown of employment by industry provided in Statistics Canada's Survey of Employment, Earnings and Hours (the most detailed available). While the industry breakdown in this survey differs from that used in the trade flow analysis above, I nevertheless established some match between an industry's employment growth and average wage and its post-FTA trade performance. I then divided 81 manufacturing industries into those that were "FTA-sensitive" and those that were "FTA-nonsensitive."[13]

Sensitive industries are those both liberalized by the FTA and where a significant increase in either bilateral exports, imports, or both had occurred since 1988 — that is, where there had been a larger-than-average increase in bilateral trade, which was also significantly larger than the increase in trade with the rest of the world. These industries were further grouped according to whether the increased trade was predominantly in exports from Canada to the United States or imports into Canada from the United States, and whether or not there was a significant increase in two-way trade. I then classified the remaining industries — including a few, such as cement, for which 1995 trade was equivalent to only a small proportion of output — as not sensitive to the FTA.

Bearing in mind that these industries differ vastly in size, it is nevertheless interesting to note that 14 sectors were not liberalized and 21 were liberalized but did not register a particularly rapid increase in bilateral trade — a total of 35 nonsensitive industries. Of the 46 sensitive industries, 16 were sectors in which exports expanded quickly without a corresponding increase in imports; in 16 others, increased imports from the United States were the dominant feature; and in 14 industries, both exports and imports expanded by a similar order of magnitude.[14]

For each group, I then calculated employment levels relative to total manufacturing employment, and weekly wages relative to the average manufacturing wage (which, recall, has risen faster than the average Canadian wage since 1988). Table 7 presents the results.

What do these results tell us? First, sectors already mostly free before the FTA recorded the best relative performance in terms of maintaining jobs, and they continue to exhibit the highest (and growing) average wage. These

sectors are Canada's "success stories" in international trade, and its leaders are the automobile and pulp and paper industries — both of which underwent some liberalization under the FTA and the NAFTA, although trade in both was already largely free — and the aerospace industry.

Second, in industries characterized by expanding exports, employment rose in the aggregate, relative to total manufacturing. While the group was already exhibiting this trend before the FTA, it became somewhat more pronounced under the agreement. Average wages in this group, however, did not fare better than in other industries subject to much greater import competition.

Third, industries that recorded large increases in two-way bilateral trade (mainly food and chemical products) saw the greatest degree of stability in both their share of manufacturing employment and their wages relative to the entire manufacturing sector. This is perhaps surprising because a large increase in intra-industry trade ought to have produced greater specialization and, hence, productivity gains translating perhaps into lesser employment but a stronger wage performance.[15] A possible explanation is that rationalization in some of these industries occurred at first, but that this allowed a relatively better employment performance to be sustained later. As well, although wages in this group fell vis-à-vis all manufacturing industries, they fared somewhat better than in other FTA-sensitive sectors.

Fourth, industries in which import growth from the United States predominated have seen a shift in employment trends since the FTA's implementation. While their share of manufacturing employment decreased only slightly between 1983 and 1988, the decline accelerated sharply thereafter. The common characteristic of these industries is that their average wages are significantly below the Canadian average for manufacturing and falling in relative terms, although the fall seems to have slowed under the FTA.

Fifth, the decline in the relative employment performance of industries classified as "liberalized, but without significant growth in either imports from or exports to the United States," which was already under way in the 1980s, became more pronounced the the post-FTA era. Indeed, these industries were clearly the worst performers over the 1988–95 period. Some of these sectors may have trimmed both employment and wages to remain competitive in the face of potential US imports, which would explain why there was little increase in trade despite liberalization. A far more likely explanation is that these industries are either shrinking under the weight of imports from mainly non-US sources (leather industries, various electronic products), particularly sensitive to the business cycle (construction materials), or otherwise in a declining phase clearly unrelated to the FTA (fish products, shipbuilding). This group's overall decline is even more striking when one considers that some industries in it (tobacco, wood products) have fared quite well in terms of either employment or wages on the coattails of a strong export performance in non-US markets.

Jobs and Continental Free Trade: An Interpretation

The relative stability of much of the data in Table 7 conceals some potentially strong conclusions. If the FTA and NAFTA had had a negative impact on Canadian employment or wages, FTA-sensitive industries should have exhibited worse-than-average performance. Instead, the numbers show no change in the relative size of employment in FTA-sensitive versus nonsensitive industries, which means that both declined relative to total employment in the Canadian economy. As we have seen, such a decline has been in evidence for decades. To the extent that any group led the more pronounced decline in manufacturing during the last recession, it was affected by factors other than free trade — although FTA-sensitive sectors showing a rapid expansion of imports also experienced a worsening that has not entirely been compensated by relative job increases in export-expanding sectors. Mean-

while, sectors that continued to do better than others in terms of employment and wages are mostly those that were already well exposed to continental competition before the FTA. This is not the first time such a result has been observed in the empirical trade literature, and it is a performance to which newly liberalized sectors aspire but clearly have not reached in the aggregate.

Indeed, wages in FTA-sensitive industries lagged those in FTA-nonsensitive groups, although once again they rose faster than wages in the overall economy. This suggests either that productivity gains that supposedly flowed from increased FTA- related trade did not find their way to people employed in these industries or, more likely given the performance of manufacturing wages relative to the economy overall, that nonsensitive sectors also registered increased productivity for different reasons — such as rationalization in the face of long-term decline or overseas imports.

These findings are consistent with the view that other factors — in particular, the accelerated pace of technological change — are responsible for the somewhat more pronounced decline in manufacturing employment in the last recession than in previous downturns, since such a change would not appear as a change in the share of employment among industries.

Where, then, are the FTA-related jobs? In its assessment of the FTA,[16] the Economic Council of Canada said that the agreement would have little impact on manufacturing employment and that, in fact, most of the increase would take place in the services industry. There, jobs have been created as a result of:

- the use by consumers and businesses of the savings from lower prices for other ends, including greater use of personal and business services;
- the impact of the higher volume of trade on wholesale and retail services and on transportation services; and
- the greater volume of services required by manufacturing firms as they strive to cut costs — for example, through increased use of computer expertise and logistics management,[17] and the contracting out of professional services once performed in-house (thereby shifting employment from manufacturing to the services sector and the self-employed).

Strong employment growth in services sectors plausibly affected by these trends (for example, wholesale trade and business services) over the period considered here is certainly consistent with this story, although not proof that these new jobs are related to the FTA.

In sum, a greater-than-ever share of Canada's economy now depends on external trade, and the FTA and NAFTA have contributed significantly to this increase. But just as consumers still spend a sixth of their income on food even though agriculture now accounts for

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little more than 3 percent of total employment, so a greater proportion of what Canadians spend on goods is probably now devoted, not to the actual physical production of goods but to the various services ancillary to their production and consumption.

Conclusion

The FTA and NAFTA appear to have made a significant contribution to the large increase in Canadian-US bilateral trade that has occurred over and above the increased trade that would have been expected as a result of economic growth per se and the effects of the depreciation of the Canadian dollar relative to US currency. The pattern of trade between the two countries has shifted roughly in the direction of pre-FTA expectations, and the competitive positions of Canadian and US producers in each other's markets has improved relative to those in third countries in many sectors that were liberalized under free trade. Preliminary evidence suggests that similar developments are occurring in trade with Mexico, despite that country's economic difficulties.

A major question mark surrounding the FTA and the NAFTA was whether Canada would remain a relatively attractive location for investment. So far, at least, Canada seems to have maintained its relative position within North America with regard to new business expenditures. It also appears to be faring well relative to its two NAFTA partners in attracting inflows of foreign direct investment. Crossborder investment links, however, now seem to be developing more quickly with overseas countries than with the NAFTA partners.

On the employment side, free trade has had little net effect on manufacturing, although there is some evidence that employment patterns are shifting among sectors. Developments in trade-related services industries, however, seem consistent with pre-FTA expectations.

Although manufacturing wages have increased relative to wages elsewhere in the economy since the implementation of the FTA and the NAFTA, this increase does not seem directly related to the move toward free trade. Canada's overall productivity performance, which alone permits a higher standard of living, remains disappointing. Factors other than trade are likely at work here, however, since export-oriented industries continue to exhibit higher wage and employment growth than do other manufacturing industries.

Table A-1: ***Changes in Canada's Merchandise Exports Not Liberalized by the FTA or NAFTA, 1988–95***

Type of Export	Value in 1995	% Exported to United States	% Change in Exports to United States	% Change in Exports to Other Countries
	($ millions)	*(%)*	*(%)*	*(%)*
Natural gas	5,649	100	91.2	n/a
Other energy, excluding crude oil	3,499	38	47.1	12.0
Other crude products	6,109	44	39.4	–9.4
Lumber	10,939	67	108.7	89.8
Pulp and newsprint	20,410	57	27.2	88.8
Fertilizer	2,305	58	46.8	28.4
Agricultural machinery	1,220	89	71.1	97.6
Ships, aircraft, and parts	6,462	68	113.9	166.3
Other end products	3,082	89	134.1	166.6
Total	59,674	64	64.5	53.6

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); and author's calculations.

Table A-2: ***Changes in Canada's Merchandise Exports Liberalized by the FTA and NAFTA, 1988–95***

Type of Export	Value in 1995	% Exported to United States	% Change in Exports to United States	% Change in Exports to Other Countries
	($ millions)	*(%)*	*(%)*	*(%)*
Meat and dairy products	3,586	77	113.6	61.0
Fish	2,424	46	–8.4	39.3
Other food, feed	9,224	40	202.3	2.9
Beverages	966	88	97.5	70.8
Other crude materials	5,258	27	124.3	36.1
Wood-fabricated materials	2,731	82	147.6	177.1
Paper, excluding newsprint	4,756	84	291.9	102.6
Textile materials	1,532	82	296.7	32.7
Chemicals	5,482	74	75.2	12.1
Chemical products	6,850	86	260.1	8.6
Iron and steel	4,207	89	78.7	37.3
Other basic products	24,336	81	81.3	10.8
Industrial machinery	9,574	80	173.9	141.5
Office, telecommunications, and precision equipment	16,917	79	203.7	102.7
Other equipment and tools	10,941	89	151.4	83.4
Other finished goods	10,898	83	217.9	43.7
Total	119,682	76	139.1	34.7

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); and author's calculations.

Table A-3: ***Changes in Canada's Merchandise Imports Not Liberalized by the FTA or NAFTA, 1988–95***

Type of Export	Value in 1995	% Exported to United States	% Change in Exports to United States	% Change in Exports to Other Countries
	($ millions)	*(%)*	*(%)*	*(%)*
Crude food and feed	2,739	54	54.3	72.5
Other crude materials	5,561	74	54.5	68.4
Fabricated products	4,487	76	20.6	40.2
Industrial machinery	2,768	54	13.8	64.0
Agricultural machinery	2,520	76	59.3	28.4
Aircraft	3,981	73	–3.7	–29.0
Medical and safety equipment	1,542	72	65.8	161.1
Printed material	2,240	86	71.4	56.4
Other transactions	1,498	86	188.8	84.4
Total	27,335	72	38.1	37.4

Sources: Statistics Canada, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

Table A-4: ***Changes in Canada's Merchandise Imports Liberalized by the FTA and NAFTA, 1988–95***

Type of Export	Value in 1995	% Exported to United States	% Change in Exports to United States	% Change in Exports to Other Countries
	($ millions)	*(%)*	*(%)*	*(%)*
Meat and dairy products	1,409	65	167.6	18.9
Fresh fruits and vegetables	2,768	67	38.1	80.6
Processed food and beverages	5,489	53	160.2	48.9
Crude materials	1,106	75	69.2	103.0
Textile materials	3,452	61	108.2	17.4
Chemicals	15,874	74	125.9	105.2
Petroleum products	1,812	71	62.1	–29.9
Steel	4,655	52	118.6	16.1
Basic fabricated metals	5,323	76	94.1	78.6
Other fabricated materials	8,118	76	90.2	24.1
Industrial machinery	15,236	67	68.2	50.9
Nonauto transportation equipment	5,386	77	134.5	40.6
Office and telecommunications equipment	29,997	53	104.1	188.3
Other equipment	15,890	76	87.5	72.4
Clothing	5,146	19	366.4	41.4
Furniture and furnishings	2,553	70	160.5	15.4
Other household goods	5,130	49	199.7	64.7
Other end products	14,624	60	96.3	87.3
Total	143,968	63	101.5	74.2

Sources: Statistics Canada, *Imports, Merchandise Trade*, cat. 65-203 (various issues); and author's calculations.

Table A-5: ***Changes in Canada's Automotive Trade Balance under the Canada-US Free Trade Agreement***

	1988	1995
	(current $ millions)	
Trade balance with the United States	6,524	18,316
Of which:		
Passenger cars and trucks	12,176	31,269
Automobile parts and engines	–5,652	–12,952
Trade balance with other countries	–5,408	–6,988
Of which:		
Passenger cars and trucks	–3,722	–3,451
Automobile parts and engines	–1,686	–3,538
Total automotive trade balance	1,116	11,328

Sources: Statistics Canada, *Exports, Merchandise Trade*, cat. 65-202 (various issues); and idem, *Imports, Merchandise Trade*, cat. 65-203 (various issues).

Table A-6: ***Industries Grouped According to Sensitivity to Free Trade***

Not Liberalized	
Dairy products	Sawmill, planing mill and shingle mill products
Pulp and paper	Asphalt roofing
Platemaking, typesetting and bindery	Publishing
Combined publishing and printing	Iron foundries
Nonferrous metal smelting and refining	Agricultural implement
Aircraft and aircraft parts	Motor vehicle
Motor vehicle parts and accessories	Agricultural chemical
Liberalized but Not Trade Expanding	
Fish products	Flour, prepared cereal food and feed
Tobacco products	Leather and allied products
Sash, door and other millwork	Other wood, n.e.c.
Aluminum rolling, casting and extruding	Other metal rolling, casting and extruding
Steel pipe and tube	Fabricated structural metal products
Ornamental and architectural metal products	Commercial refrigeration and air conditioning equipment
Shipbuilding and repair	Communication and other electronic equipment
Electrical industrial equipment	Communications and energy wire and cable
Electrical and electronic products, n.e.s.	Cement
Refined petroleum products	Other petroleum and coal products
Industrial chemicals, n.e.c.	
Export Expanding	
Rubber products	Textile products
Paper box and bag	Other converted paper products
Primary steel	Power boiler and heat exchanger
Heating equipment	Machine shop
Other machinery and equipment	Boatbuilding and repair
Major appliance (electric and nonelectric)	Office, store and business machine
Plastic and synthetic resin	Plastic products
Pharmaceutical and medicine	Paint and varnish
Import Expanding	
Meat and poultry products	Vegetable oil mills (except corn oil)
Beverage	Primary textile
Clothing	Household furniture
Office furniture	Other furniture and fixture
Commercial printing	Copper and copper alloy rolling, casting and extruding
Stamped, pressed and coated metal products	Truck and bus body and trailer
Concrete products	Ready-mix concrete
Glass and glass products	Nonmetallic mineral products, n.e.s.
Both Import and Export Expanding	
Fruit and vegetable	Bakery products
Sugar and sugar confectionery	Other food products
Veneer and plywood	Wire and wire products
Hardware, tool and cutlery	Other metal fabricating
Railroad rolling stock	Other transportation equipment
Soap and cleaning compounds	Toilet preparations
Other chemical products	Other manufacturing

Note: n.e.c. = not elsewhere classified; n.e.s. = not elsewhere specified.

Notes

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1 See Richard G. Lipsey, "Notes on Globalization and Technological Change and Canadian Trade Policy," CIAR Program in Economic Growth and Policy Working Paper 8 (Toronto: Canadian Institute for Advanced Research, 1993).

2 See Richard G. Lipsey, Economic Growth, Technological Change, and Canadian Economic Policy, Benefactors Lecture, 1996 (Toronto: C.D. Howe Institute, 1996).

3 See Daniel Schwanen, A Growing Success: Canada's Performance under Free Trade, C.D. Howe Institute Commentary 52 (Toronto: C.D. Howe Institute, September 1993).

4 A more refined breakdown, of over 160 exported and 200 imported commodities into liberalized and nonliberalized sectors, is available from the author on request.

5 The trade numbers for automobiles and crude petroleum are treated separately from the others, in part because it would be inaccurate to put them in either the liberalized or nonliberalized categories since all of oil and gas trade and the vast majority of bilateral auto trade were free of duty before the FTA. It is fair to say, however, that both sectors underwent a partial change of regime with the FTA. As well, in these sectors, it is clearly inappropriate to treat exports independently from imports, as I do for the other industries. Suffice it to say that the dire predictions of FTA and NAFTA opponents concerning Canada's automobile industry have proved to be wrong, as Table A-5 indicates.

6 Price indexes are not available for each one of the more than 160 or so export commodities and 200 import commodities used to conduct the initial analysis in dollar terms, but they exist for about 60 major commodity groupings for each exports and imports. The price index I used to deflate each detailed category is the one for the corresponding major grouping — for example, I deflated the value of imports of both "bananas" and "grapes" by the price index for "fresh fruits." Another important assumption — again one not likely to affect the qualitative results — is that the price of goods traded with the United States is the same as that of world exports or imports in each respective category. For these reasons, the statistics on volumes presented here are called "estimates."

7 I chose the 1981–88 period because it is the same length of time as that of the post-FTA analysis. And, like the latter period, it is characterized by economic expansion to start with, followed by a sharp recession (in 1982), and a subsequent recovery. This similarity removes at least some chance that the comparison is biased by cyclical factors.

8 See, for example, Lorraine Eden, "Who Does What After NAFTA? Location Strategies of US Multinationals," in Lorraine Eden, ed., Multinationals in North America, Industry Canada Research Series 3 (Calgary: University of Calgary Press, 1994).

9 In its evaluation of the FTA, the Economic Council of Canada divided investment growth flowing from the agreement into "induced" and "autonomous" investment. The former was simply the investment that would follow "normal increases in final demand" stemming from the agreement — that is, if greater efficiency flowing from freer trade raises standards of living and increases employment, then there should be a rise in capital investment in order simply to reach the capital stock needed for the higher levels of consumption and production. The latter, which is much less easy to model or predict, entails additional investment in the face of changes in the structure of the economy; this additional investment modifies the stock of capital per worker. See Economic Council of Canada, *Venturing* Forth: An Assessment of the Canada-US Trade Agreement (Ottawa: Supply and Services Canada, 1988), pp. 16–18.

10 The latter does not seem to be significant, except perhaps in the automobile and textiles sectors. See Ronald J. Wonnacott, The NAFTA: Fortress North America? C.D. Howe Institute Commentary 54 (Toronto: C.D. Howe Institute, November 1993). However, Mexico's raising of trade barriers against non-NAFTA countries would have exacerbated any NAFTA-induced trade diversion.

11 See Aileen J. Thompson, "The Anticipated Sectoral Adjustment to the Canada-United States Free Trade Agreement: An Event Study Analysis," Canadian Journal of Economics 26 (May 1993): 253–271.

12 In fact, although US foreign direct investment into Canada has increased, Canada's share of the total US portfolio of direct investment abroad also decreased, from 18 percent in 1988 to 11 percent in 1995. See Arlene Wilson, Canada-US Trade and Investment under the FTA and the NAFTA, Congressional Research Service Report 96-906E (Washington, DC: US Government Printing Office, November 1996).

13 This approach was inspired by a study of US industries affected by rapid trade expansion in the 1980s. See Robert W. Bednarzik: "An Analysis of US Industries Sensitive to Foreign Trade, 1982–87," *Monthly Labor Review*, February 1993, pp. 15–31.

14 The industries divided in this manner are listed in Table A-6.

15 There is evidence that industries showing strong two-way gains in trade under the FTA also registered strong increases in labor productivity. See Enrique Gelbard, "Effects of Economic Integration: FTA, NAFTA and

Beyond" (Paper prepared for the "Conference on the Next Stage of Economic Integration," Institute for Economic Conferences, Montreal, November 3, 1994).

16 Economic Council of Canada, Venturing Forth.

17 For an example of the booming trade-driven growth of a Canadian logistics management firm, see Oscar Rojo, "On track around the world," Toronto Star, September 2, 1996, p. B3.

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