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The Uruguay Round of the General Agreement on Tariffs and Trade

An Assessment of the Economic Impact on Canada

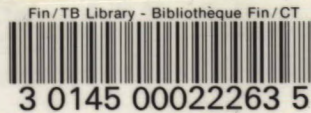
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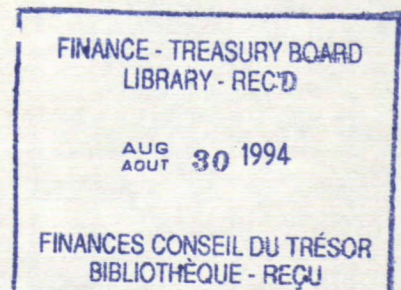
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An Assessment of the Economic Impact on Canada

August 1994



Department of Finance
Canada

Ministère des Finances
Canada



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1. INTRODUCTION AND SUMMARY

On December 15, 1993, 117 governments from all corners of the world – considerably more than in any previous multilateral round of trade liberalization under the General Agreement on Tariffs and Trade (GATT) – reached an agreement, not only to liberalize trade further but also to clarify, improve and widen the scope of the rules that govern it. The participating governments signed the agreement in Marrakesh, Morocco on April 15, 1994 and it will come into effect on January 1 or July 1, 1995. A new World Trade Organization (WTO) will replace the GATT. All members undertook to liberalize trade for one principal reason: experience has shown that freer trade is one of the surest and most equitable ways of improving performance of both individual countries' economies and the global economy.

The comprehensiveness of the Uruguay Round resulted in complex negotiations that took seven years to complete. The seven previous GATT rounds had concentrated mainly on mutual tariff reductions in a more limited number of sectors, accounting for less than half of the member countries' economies. The Uruguay Round developed new trade rules for extended liberalization to large additional areas of the economy, including services, agriculture, textiles, and intellectual property.

Services are the largest sector of the economies of the industrialized world and, in many countries, one of the fastest growing, not only in production but also trade. Agriculture and textiles have been notoriously difficult to liberalize owing to their historic pattern of protection. Appropriate protection and enforcement of intellectual property rights has proven to be intrinsically difficult and has become more important with the tremendous growth of computer software, new drugs, and other technologically-advanced products. The Uruguay Round addressed all of these challenges in one form or another and brought them under the umbrella of multilateral trade rules.

The Uruguay Round also made two other major advances. First, the agreement provides for better and clearer rules governing trade, more precise definitions for permissible subsidies, and, with the creation of the World Trade Organization, more effective enforcement mechanisms to ensure that disputes, which inevitably arise, are settled more effectively and expeditiously. Second, the agreement replaces many quantitative restrictions and other forms of protection, such as quotas, licensing requirements, and voluntary or involuntary export and import restraints, with more transparent protection in the form of tariffs.

The Uruguay Round will improve the economic well-being of all member countries because it is based on the simplest of thoughts in economics: by trading, we avoid having ourselves to produce everything we want to consume and, instead, produce what we are best at and trade it for what others produce better. International trade is no different from trade among individuals within a nation; it is distinguished only by the existence of national frontiers, which are not drawn on purely economic grounds.

The new agreement is all the more important for both small and midsize economies heavily dependent on trade, such as Canada, whose well-being depends critically on a firm system of multilateral trade rules to help ensure continued fair access to world markets. Exports are an important engine of growth and job creation, accounting for almost a third of Canadian output. Clearer trading rules and effective mechanisms for settling disputes are particularly helpful for a country like Canada, since they put all countries, large or small, on an equal footing. The rule of law prevails over sheer market power. Improved multilateral rules allow midsize and smaller countries to deal more effectively with large trading partners.

Quantifying the gains of any trade liberalization is a difficult task. Quantifying the benefits of the Uruguay Round is doubly complex because of the wide scope of the agreement, the inclusion of new economic sectors, and the difficulties of quantifying key institutional aspects of the agreement, such as clearer rules, definitions, and enforcement mechanisms. A number of researchers, however, have tried to estimate only the quantifiable gains of the Uruguay Round. Using the *Final Draft Act of 1991* (the so-called Dunkel Text, named for Arthur Dunkel, former director-general of GATT, which was the basis for the Final Agreement), the Organization for Economic Cooperation and Development (OECD) has estimated the quantifiable gains from the round to be worth at least C\$360 billion annually to the world economy.

An added complexity in determining the gains from the Uruguay Round for Canada is our prior participation in the Canada-United States Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA). Had Canada not participated in these agreements, the Uruguay Round would have meant substantially larger reductions in Canadian and U.S. tariffs on their mutual two-way trade. These reductions had already been made as a result of the FTA and NAFTA. A major part of the income gains from tariff reductions attributed to the FTA/NAFTA would then have been part of the Uruguay Round real income gains. Since the FTA was estimated to increase Canadian real incomes by 2.5 per cent, inclusion of parts of these gains would have considerably boosted the estimated impact of the Uruguay Round. The real income gains attributable to the Uruguay Round in this study are only the *quantifiable incremental gains* resulting from additional trade liberalisation over and above the FTA/NAFTA. However, it is important to recognise that, in a number of respects – such as in the pace and extent of tariff reductions, rules on investment, and bilateral/trilateral dispute settlement – the FTA and NAFTA went beyond what might have been expected from multilateral negotiations.

The Department of Finance, making conservative assumptions and using a large general-equilibrium trade model of the economy, has estimated quantifiable Canadian gains of the Uruguay Round at least a 0.4-per-cent increase in real income, or C\$3 billion, annually when the agreement is fully phased-in. These are, however, only a fraction of the actual gains that will probably occur, because many additional gains cannot be precisely quantified. While these quantifiable gains for Canada are small compared with the income gains from the FTA, they are not insignificant.

This paper assesses the economic impact of the Uruguay Round from a Canadian perspective. Chapter 2 discusses the economic rationale for more liberalized trade and identifies the key areas of benefit to the Canadian economy. Chapter 3 provides a non-technical description of the Uruguay Round. Chapter 4 assesses the quantitative and qualitative effects of the Round on the Canadian economy. Chapter 5 sums up the key themes of the paper.

2. THE ECONOMICS OF MULTILATERAL TRADE

This chapter provides the analytical case for freer trade, supports the analysis with evidence for both Canada and other countries, establishes key principles to assure that trade agreements do indeed achieve the benefits of freer trade, and discusses the extent to which bilateral and multilateral trade agreements satisfy these needs.

Sources of the Gains from Free Trade

The payoff in higher living standards from international trade comes from three sources: production gains, consumption gains, and dynamic gains.

Production Gains

Specialization by nations in the production and supply of goods and services leads to production of the largest quantities of goods, with the highest qualities, at the lowest possible prices. Individuals concentrate on doing the best they can, with some inventing new products, others improving existing products, and still others finding ways to cut down the costs of producing what they produce best. Larger production runs fostered by specialization permit economies of scale and reduction of costs, thereby increasing the economic potential of all individuals, nation states, and the world economy.

Consumption Gains

The other side of the production-specialization coin is consumption of products in the largest quantity, of the best quality, and at the lowest prices. If consumption is the yardstick of standards of living, freer trade is the simplest and surest way to raise living standards. Competition among suppliers to attract and please consumers lowers costs, increases product variety, and makes products easier to obtain.

Dynamic Gains

The process of production specialization and competitiveness to attract consumers unleashes what are called "dynamic gains". Producers adjust rapidly to changing economic circumstances and to changes in consumer demand by undertaking research, adopting new technologies, modernizing production, improving the flow of technology across national and international frontiers, and improving products. Resources are allocated to their best use; technological progress is accelerated and diffused more widely. Specialization allows all to contribute to this dynamic process in their own most productive way. The "new growth theories" use this insight into dynamic gains to argue that freer trade not only raises the levels of output and incomes, but also increases their growth rates.

Empirical Evidence of Gains from Free Trade

International Evidence

Over the last 40 years, world output rose six times, and most nations witnessed appreciable increases in their standards of living and well-being. An almost twelve-fold increase in world trade in the same period contributed greatly to this expansion (illustrated in Chart 2.8).

The key determinants of expansion in world trade were the successive rounds of liberalization under the GATT and other trade agreements and the mutually reinforcing effects of trade liberalization on output growth. The GATT rounds reduced average tariffs for manufactured goods among industrial countries from about 40 per cent in the late 1940s to 5 per cent after the Tokyo Round in 1979. These reductions were front-end loaded, since particularly large ones resulted from the Geneva Round in 1947 and the Annecy Round in 1949. By 1961, after the Dillon Round, average tariffs were only one-fifth of their pre-war level.

The effect of trade liberalization on economic growth has been well documented. In an influential 1988 report¹, the OECD stated:

The liberalization of world trade on a multilateral basis was one of the outstanding successes of international economic co-operation in the first 20 years of the postwar period. The process of liberalization has still a long way to go, indeed it has in some significant respects been reversed in more recent years; but the experience of the past few decades makes it clear that greatly widened opportunities for trade, once durably established, have substantial positive effects on economic performance.

Considerable evidence shows that freer trade, encouraged by regional agreements, also spurs economic growth. The OECD has estimated that the economies of scale made possible by the existence of a large integrated European market increased productivity in the major European Union countries by nearly 12 per cent. Further, the Commission of the European Union has estimated that the creation of the internal market will result in gains of at least 6.5 per cent in the Community's gross domestic product (GDP). These estimated gains do not include the dynamic gains from trade described above.²

¹ OECD, *Structural Adjustment and Economic Performance*, Paris, 1988.

² Commission of the European Communities, *European Economy*, No. 44, October 1990.

Canadian Experience of Gains from Freer Trade

Canada is a midsize economy with a population base of only 27 million but with a large trade sector. Indeed, the smallness of an economy and its degree of openness are linked: the smaller an economy, the more it has to rely on the outside world both to sell its production and to buy goods and services for its own consumption and investment. For this reason, Canadian governments have always been in the forefront of efforts to liberalize trade.

Canadian dependence on foreign trade is evident from Charts 2.9, 2.10 and 2.11. Measuring trade as either a percentage of GDP or by value per capita, Canada ranks among the top trading countries in the world. Over the past two decades, Canadian exports have grown faster than exports from OECD Europe and at about the same pace as U.S. exports.

Chart 2.11 shows that since the Second World War, Canadian trade has expanded far more rapidly than production. This is consistent with world experience shown in Chart 2.8. The volume of Canadian trade in goods and services, as a share of GDP, has risen since the war by about 70 per cent, due to both trade liberalization and Canada's ability to exploit the new opportunities. As Chart 2.12 shows, average Canadian tariff rates tumbled from 10.5 per cent in 1955 to 2.9 per cent in 1992. Chart 2.13 shows tariff reduction and growth in per capita output in Canada. The figures do not demonstrate that one caused the other, but the correlation is striking: stronger economic growth went hand in hand with tariff cuts.

The free trade agreement Canada entered with the United States in 1989 was estimated to generate large economic gains for Canada. A Finance Department assessment estimated the annual gain in real income at 2.5 per cent.³ Each major sector of the Canadian economy and each region was expected to benefit.

The FTA was expanded to include Mexico in 1993, becoming the North American Free Trade Agreement. Trade liberalization under the FTA and NAFTA is being phased-in gradually. Because of this, and the worldwide economic slowdown of the past four years, the effects of these agreements on the Canadian economy are hard to calculate with any precision. A recent study by the C.D. Howe Institute on the effects of the FTA concluded that:⁴

Canada's exports to the United States over the FTA's first three full years of operation performed the strongest in those sectors that were liberalized by the agreement – particularly non-resources-based manufacturing.

³ Department of Finance, Government of Canada, *The Canada-U.S. Free Trade Agreement – An Economic Assessment*, Ottawa, 1988.

⁴ Schwanen, D., *Were the Optimists Wrong on Free Trade? A Canadian Perspective*, C.D. Howe Institute, commentary No. 32, October 1992.

Imports into Canada also rose in those sectors that were liberalized under free trade.

Canada's trade balance with the United States seems to have been more favourable than with the other regions over that period.

The evidence strongly suggests that free trade with the United States is crucial to the development of high value-added industries.

Freer Trade and Trade Agreements

Although the gains from freer trade to the national economy are unmistakable, countries sometimes restrict trade for two main reasons:

- They wish to protect some sectors of the economy. The result is always a decline in national income, however, since the costs of these protected goods to consumers rise and resources are consequently not allocated to their most efficient use.
- They wish to use the trade restrictions to improve their bargaining power in international negotiations. Sometimes, larger countries may also succeed in diverting income from other countries to themselves, since trade restrictions could improve their terms of trade. These potential gains from trade restrictions for larger countries, however, always have to be balanced against potential costs of such restrictions, such as the threat of retaliation by others, limited impact on international prices in most cases, even for large countries, and, most important of all, the resource misallocation resulting from trade restrictions.

These aspects of protectionism carry three messages. First, a small or midsize open economy like Canada's will generally lose from protection, since it cannot limit access to its markets as a way of extracting benefits from trade partners. Second, international trade agreements are always hard to reach, since certain sectors of the economy suffer while the country as a whole benefits from freer trade; the losses are concentrated while the gains, though large, are more diffuse. Third, large countries would generally – though not always – find it harder to agree to more stringent international trade rules, because rules reduce their bargaining power, a gain to smaller open economies such as Canada's.

The protectionist temptations noted above also suggest the form international agreements should take from the perspective of a mid-size trading economy such as Canada:

- **Scope:** They should be as comprehensive as possible and include the widest possible range of sectors to avoid distorting the allocation of resources among sectors.

- **Rules:** They should establish clearer and fairer rules for trade through clear and appropriate processes for dispute settlement, to reduce and remove uncertainty and to settle disputes quickly.
- **Transparency:** They should make all forms of protection as transparent as possible to reduce uncertainty, which itself can be a major barrier in a trading relationship.

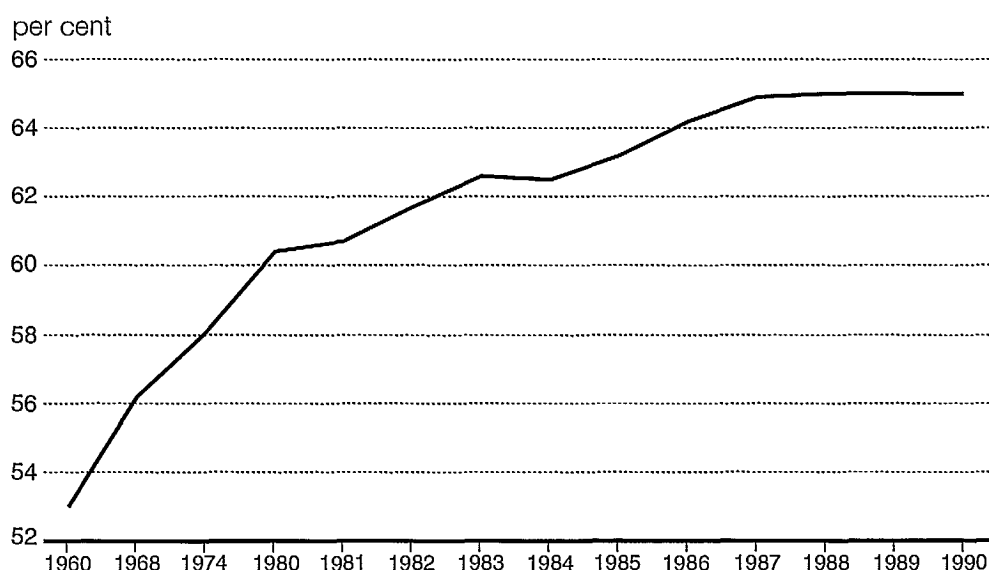
These three aspects are discussed in further detail below.

Comprehensive Scope for Free Trade

Freer trade improves welfare through a more efficient allocation of resources. There is a risk, however, that freer trade in only a limited number of sectors may worsen efficiency by increasing the dispersion, or unevenness, of protection in an economy. For this reason, a wider coverage of sectors for trade liberalization, in itself, improves real incomes. This principle is particularly important, since the service sector alone, previously excluded from trade liberalization under the GATT, comprises over two-thirds of the economies of the G-7 countries (Chart 2.1). Trade in services has grown a good deal more than trade in goods in recent years (Chart 2.2). Similarly, new rules on trade-related intellectual property and investment measures will prove valuable in the light of the strong growth of direct investment flows over the last decade (Chart 2.3).

Chart 2.1

*Value-added in services as a per cent of GDP in G-7 countries
1960-1990*



Source: OECD, *Economic Outlook: Historical Statistics (1960-1990)*, 1992.

Chart 2.2

*Growth in global exports of goods and services
1981-1991*

average annual per cent rate of growth

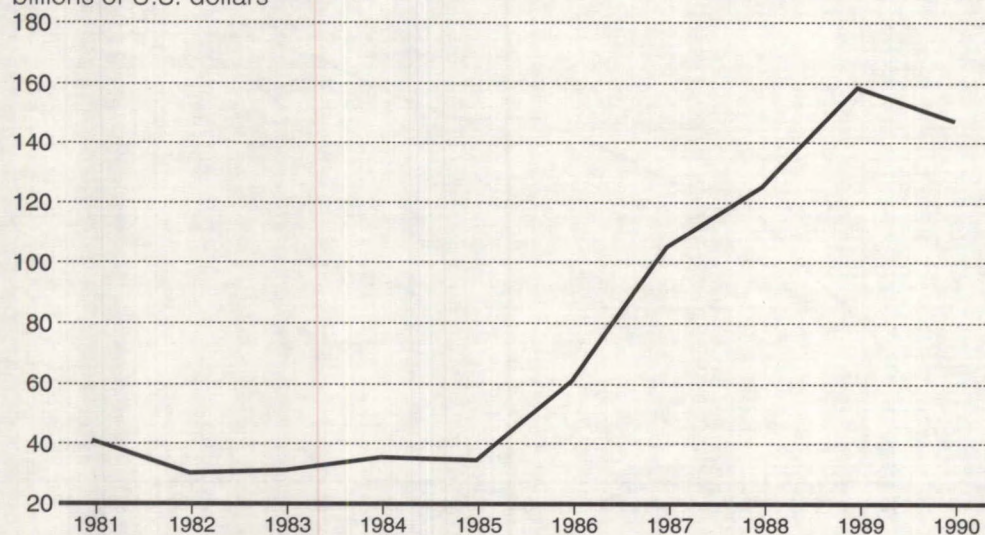


Source: DRI *World Economic Outlook*, 1993.

Chart 2.3

*Direct investment flows: total OECD
1981-1990*

billions of U.S. dollars



Source: OECD, *International Direct Investment; Policies and Trends in the 1980s*, 1992.

Clearer Rules for Trade and Dispute Settlement

The problems with the old GATT dispute settlement mechanism have been summarized as follows:⁵

- There were no fixed rules governing such things as the right to a panel, what happened once the panel was established, its terms of reference, who the panellists would be, and what to do if the parties disagreed on the terms of reference or the panellists. ...the GATT works by consensus and if one of the parties to the dispute wanted to delay, to prevent the panel from getting started, that party could throw up roadblocks all along the way.
- The roadblocks today are in two areas. One is adoption of panel reports and the other is implementation of panel reports. As the GATT works by consensus, dispute reports are now sent to the GATT Council for adoption by everybody including the parties to the dispute. The result has been – although not in recent years, not since the start of the Uruguay Round – that countries have blocked the adoption of panel reports that found against them. Consequently, one of the major elements of the negotiations thus far has been how to resolve this problem of unilateral blockage and make the system work better.

Increased Transparency

The proliferation of non-tariff barriers (NTBs), which are less transparent than tariffs, hurts world trade for two main reasons.

- The non-transparency typical of NTBs makes it easier to raise levels of protection without other parties being aware of it or able to examine it. Owing to the difficulty of quantifying such protection, the dispersion, or variation, in protection rates across sectors is likely to be much greater under NTBs, creating greater economic distortions than under more transparent restrictions.
- NTBs are likely to be more damaging to world trade and welfare than tariffs that afford similar levels of protection. With tariffs, changes in domestic demand and supply lead to adjustments in the amount of goods traded, while providing stable prices. Tariffs do not modify the clear signals to domestic producers and consumers, which constitute the essential role prices play in resource allocation. In other words, the rates of protection remain stable, set by the rates of tariffs. With NTBs, however, changes in demand and supply lead to volatile domestic price responses that fail to give reliable signals to guide production and consumption decisions. This means rates of protection can fluctuate considerably from period to period, creating uncertainty.

⁵ Elaine Feldman, Comments on "The Judicialization of GATT Dispute Settlement", in Michael M. Hart and Debra P. Steger (eds.) *In Whose Interest: Due Process and Transparency in International Trade*, Centre for Trade Policy and Law, Ottawa, 1992.

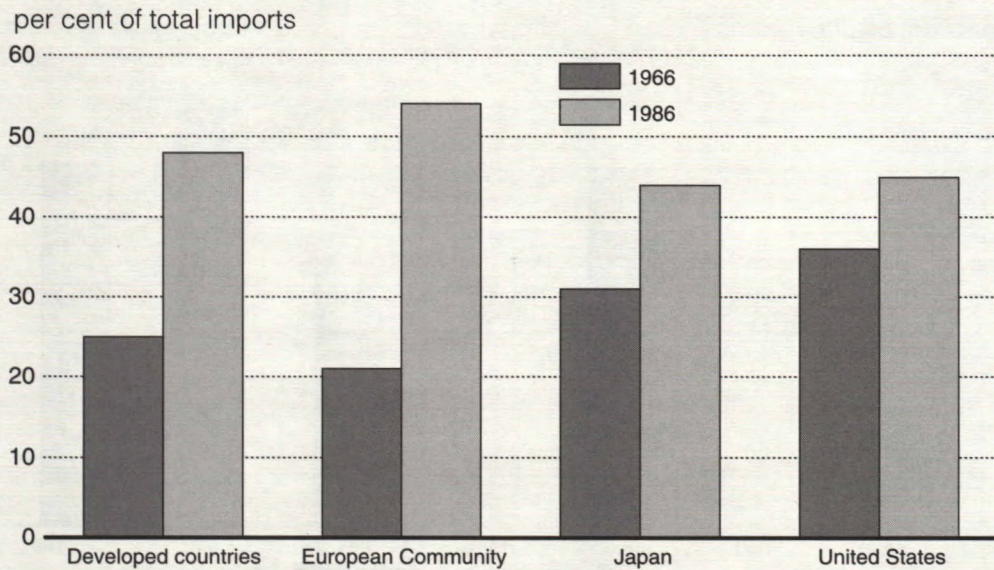
Chart 2.4 shows that NTBs became increasingly important over the 20 years from 1966 to 1986. All developed countries were more or less in the same situation in 1986, with almost half of their imports affected by NTBs. This type of data is not available beyond 1986. For the more recent period, Chart 2.5 shows the proportion of imports directly covered, rather than affected, by NTBs.⁶ The difference between Charts 2.4 and 2.5 is that Chart 2.4 includes both direct and indirect coverage while Chart 2.5 deals only with direct coverage. The second measure shows a decline in the importance of NTBs in the 1988-1993 period except for the U.S. The two charts combined, however, suggest that NTBs are generally much more significant now than they used to be. Chart 2.5 shows clearly that Canada would gain more from greater transparency, since other countries rely more heavily than Canada on non-transparent protection.

Chart 2.6, showing the range of NTBs for a number of sectors, invites two comments. First, certain sectors of the economy are highly protected. Second, the dispersion, or variation, in the level of protection afforded various sectors, around an average rate of 18.2 per cent, is truly large. It is this dispersion of protection, even more than its high average level, that is particularly harmful to world trade and welfare. Chart 2.7 provides estimates of the protection afforded agriculture, resulting mainly from NTBs. The chart shows quite clearly that agriculture, which is now subject to greater discipline, has in the past enjoyed protection many times higher than the rest of the economy in virtually all OECD countries.

⁶ The indirect coverage relates to the assumption that "all closely related products from all exporters of products subject to NTBs were, in fact, affected". See Sam Larid and Alexander Yeats, "Non Tariff Barriers of Developed Countries, 1966-86", *Finance and Development*, March 1989.

Chart 2.4

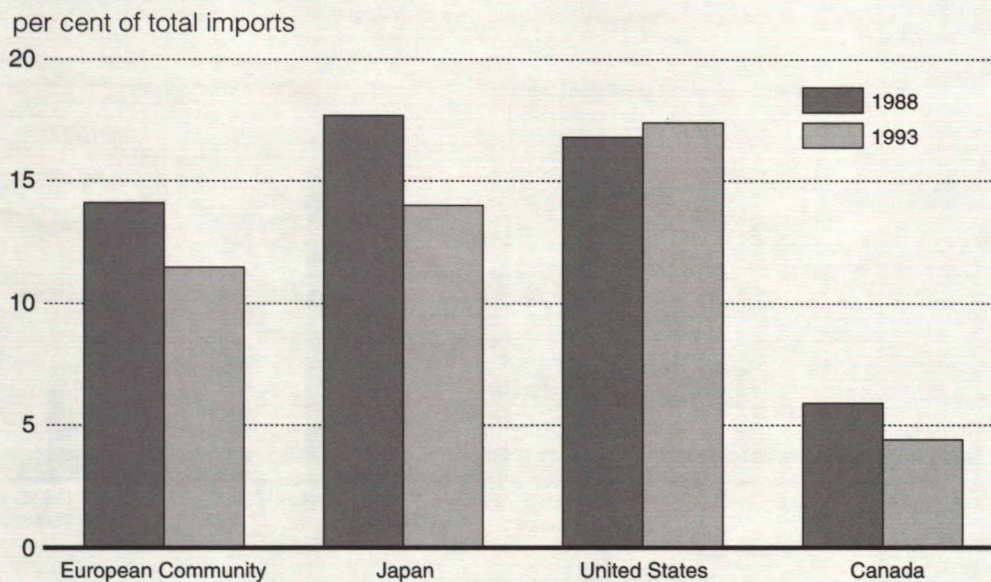
Imports affected by non-tariff barriers (NTBs)
 1966 and 1986



Source: Laird, S. and A. Yates, *Finance and Development*, International Monetary Fund and World Bank, March 1989.

Chart 2.5

Imports covered by non-tariff barriers (NTBs)
 in selected OECD countries: 1988 and 1993

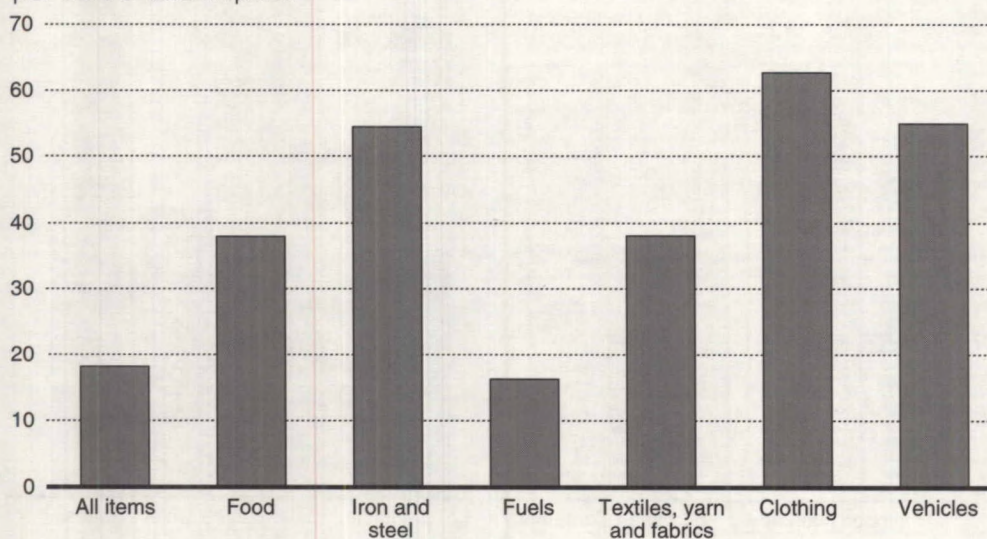


Source: OECD, *Patterns and Pervasiveness of Tariffs and Non-Tariff Trade Barriers in OECD Countries*, Eco/Div(94)3, March 1994.

Chart 2.6

*Selected imports covered by non-tariff barriers (NTBs):
Selected OECD countries, 1988*

per cent of total imports

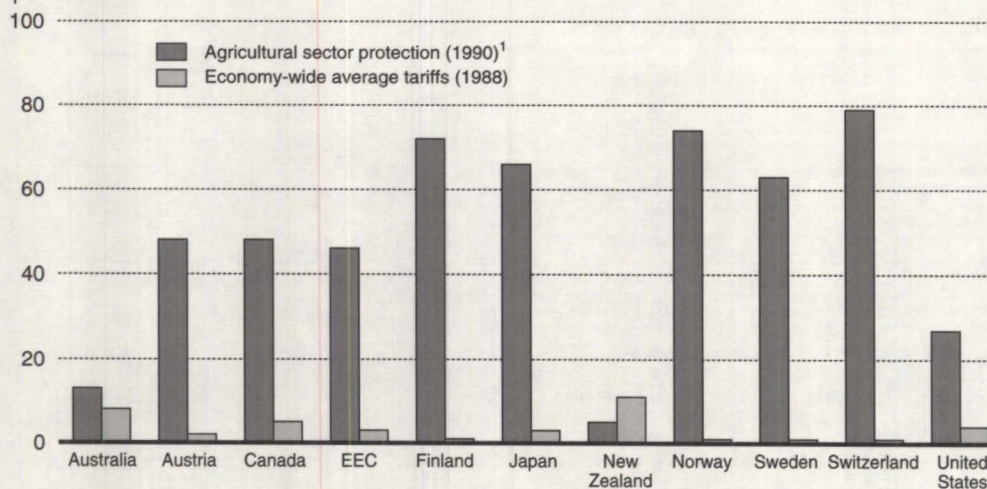


Source: OECD, *Wage Adjustments*, February 1994. SG/EUS(94)6/ANN.

Chart 2.7

*Protection of agricultural and non-agricultural sectors:
OECD Countries*

per cent



¹ Protection is estimated by the OECD as Producer Subsidy Equivalents (PSEs).

Sources: OECD, *Agricultural Policies, Markets and Trade* 1993; J.M. Finger and A. Olechowski (eds), *The Uruguay Round: A Handbook on the Multilateral Trade Negotiations*, World Bank, 1988.

Multilateral versus Bilateral Trade Agreements

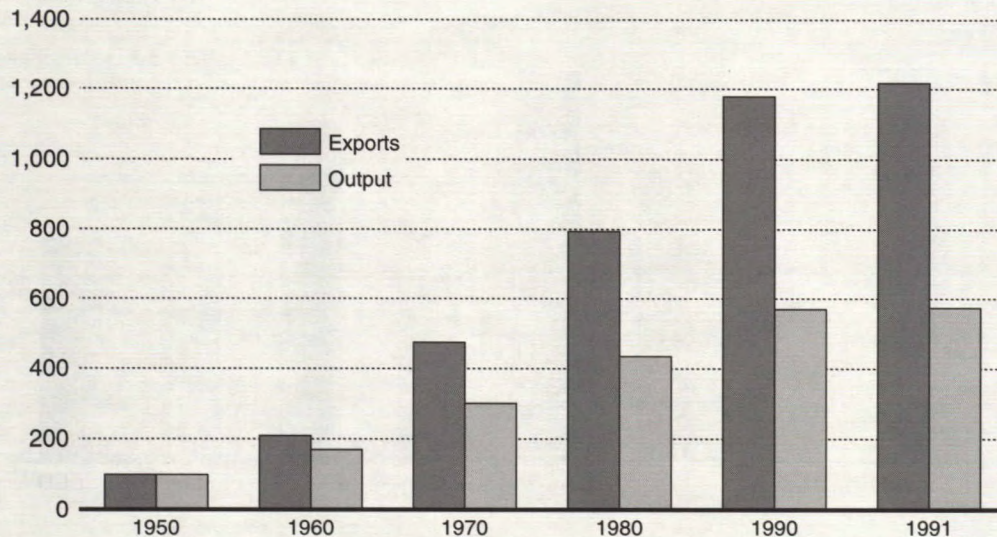
The benefits of multilateral free trade are conceptually larger than those for regional free trade for two reasons. First, multilateral agreements avoid the possibility of "trade diversion", which can result from a regional agreement if trade is diverted from an efficient third country to an inefficient partner country. Second, the much greater number of countries in a multilateral deal reduces the possibility of any one big partner achieving disproportionate gains, as it might in a regional agreement.

Regional arrangements may be a more feasible and immediate way of breaking new ground in liberalizing trade, however. Regional deals in fact can set the stage for subsequent liberalization in broader multilateral agreements.

It was partly because of the slow progress of the multilateral talks that Canada entered into a bilateral trade agreement with the U.S. to accelerate the benefits of freer trade. Canada had an opportunity to capitalize on better and more secure access to the U.S. market for Canadian goods.

Chart 2.8
Volume of world trade and output

index: 1950=100

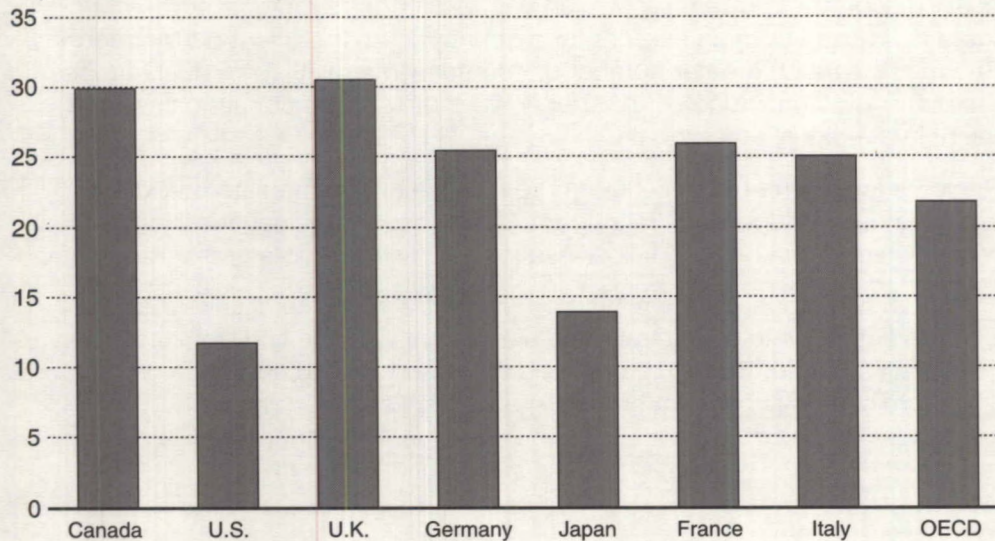


Source: Jim Rollo, "Protectionism, The Uruguay Round and the World Economy", *U.S. Review*, DRI/McGraw Hill, November 1993, p.53.

Chart 2.9

Export orientation

exports as a percentage of GDP, 1991

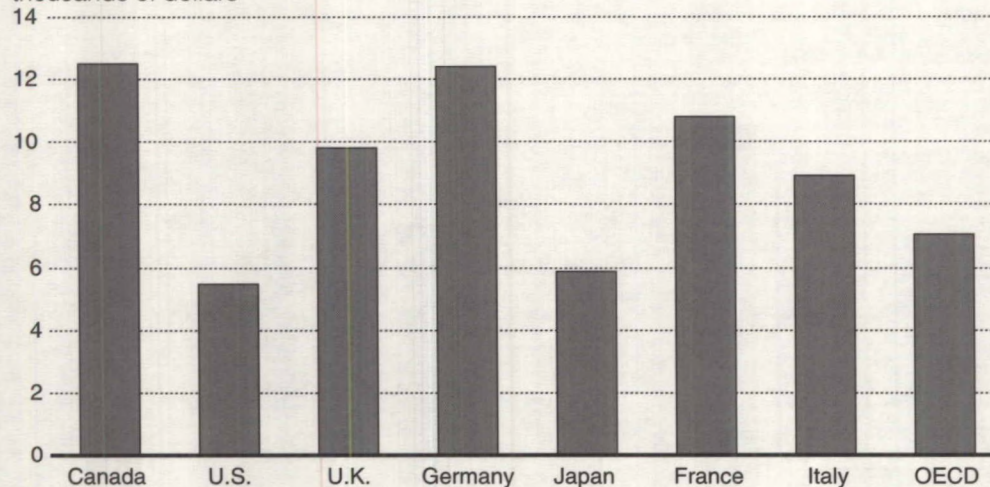


Sources: OECD, *National Accounts Vol 1&2*, 1993 and Statistics Canada, *National Income and Expenditure Accounts*, December 1993.

Chart 2.10

Exports and imports per capita, 1991

thousands of dollars

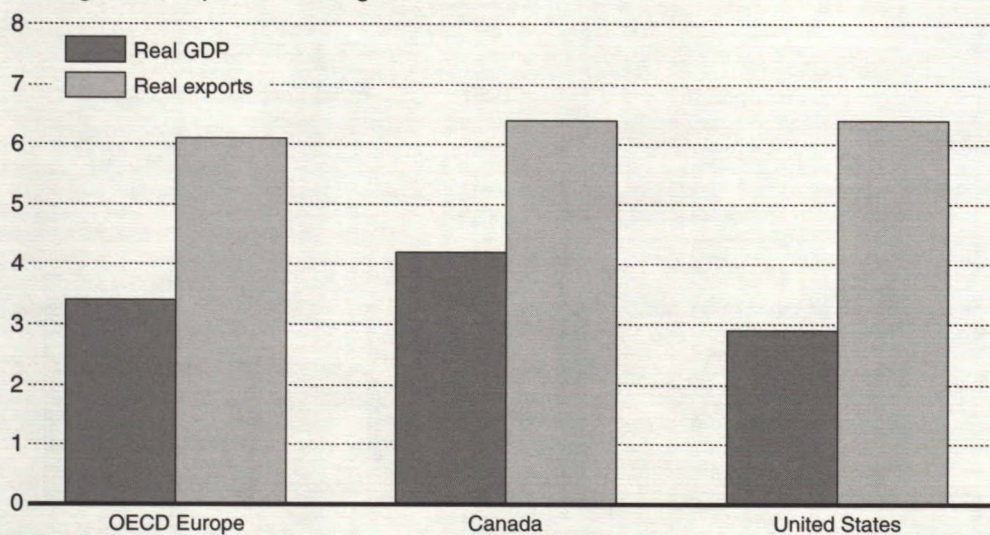


Sources: Canada: Statistics Canada, *National Income and Expenditure Accounts*, December 1993.
 Germany: OECD *National Accounts and Economic Survey*, 1993.
 Other Countries: OECD *National Accounts* 1993.

Chart 2.11

*Growth in trade and production
in Canada and the OECD Countries, 1960-1991*

average annual percent change

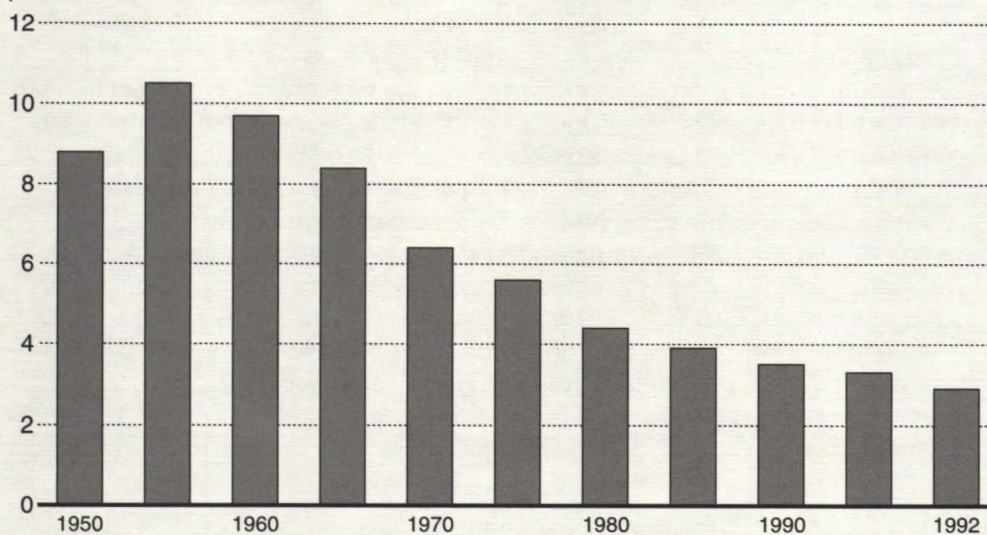


Sources: Canada: Dept. of Finance, *Economic and Fiscal Reference Tables*, August 1993.
Europe and United States: *OECD National Accounts 1960-1991*, 1993.

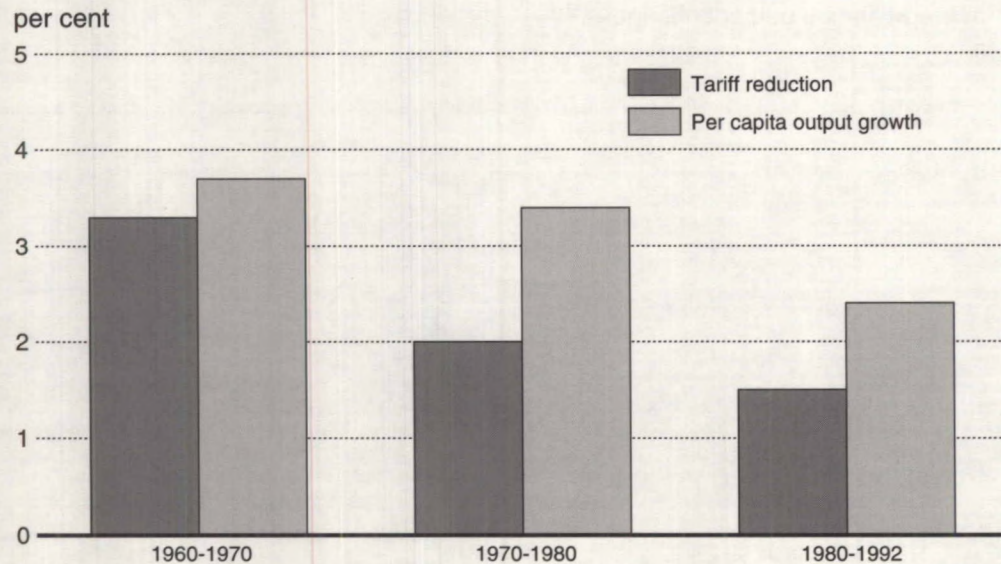
Chart 2.12

*Canadian duties collected as a
per cent of imports, 1950 to 1992*

per cent



Source: Statistics Canada, *Imports: Merchandise Trade, 1950-1992*.

Chart 2.13*Per capita output growth and tariff rate reduction in Canada*

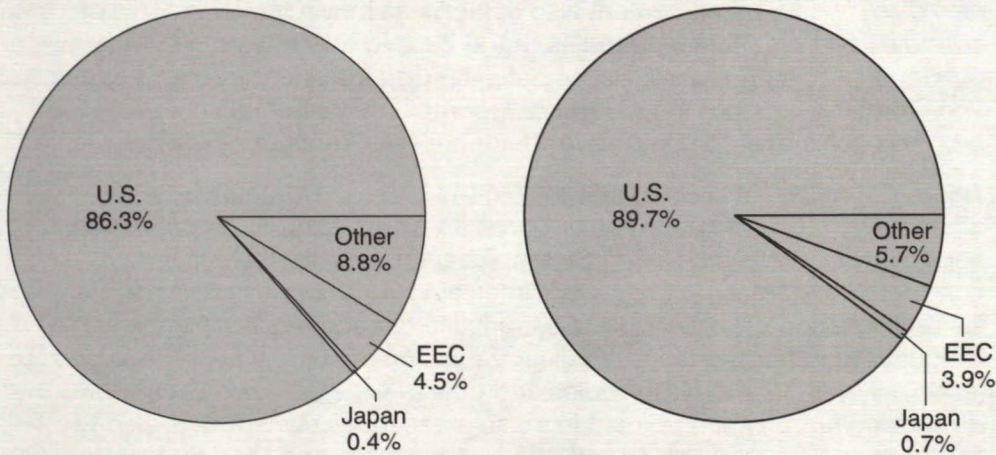
Sources: Statistics Canada, *National Income and Expenditure Accounts*, 1993, and *Postcensal Annual Estimates of Population by Marital Status, Age, Sex and Components of Growth for Canada, the Provinces and Territories at June 1st, 1993*.

Charts 2.14 and 2.15 show that the United States had become not just the dominant market for Canadian goods, but also by far the most important market for Canadian manufactured end products. Moreover, the relative importance of the U.S. market for those products had grown substantially over time while other markets, particularly in Europe, had shrunk.

Canada also achieved far more in reduced trade barriers and more secure access to its most important market through the FTA and NAFTA than it could have by relying on the Uruguay Round alone. For example, in the FTA, Canada and the United States agreed to eliminate tariffs between them, establish new rules to govern investment and services, and create a panel system to resolve disputes. In NAFTA, Mexico was brought into the agreement and the rules were extended in several important areas, such as investment, services, and intellectual property. In contrast, until the Uruguay Round agreement, GATT members had been unable to agree to completely eliminate tariffs between them in any large sector. Moreover, GATT rules governing investment were few; no rules governed services.

Chart 2.14

*Canadian exports of manufactured end products
by country and trading area, 1973 and 1993*

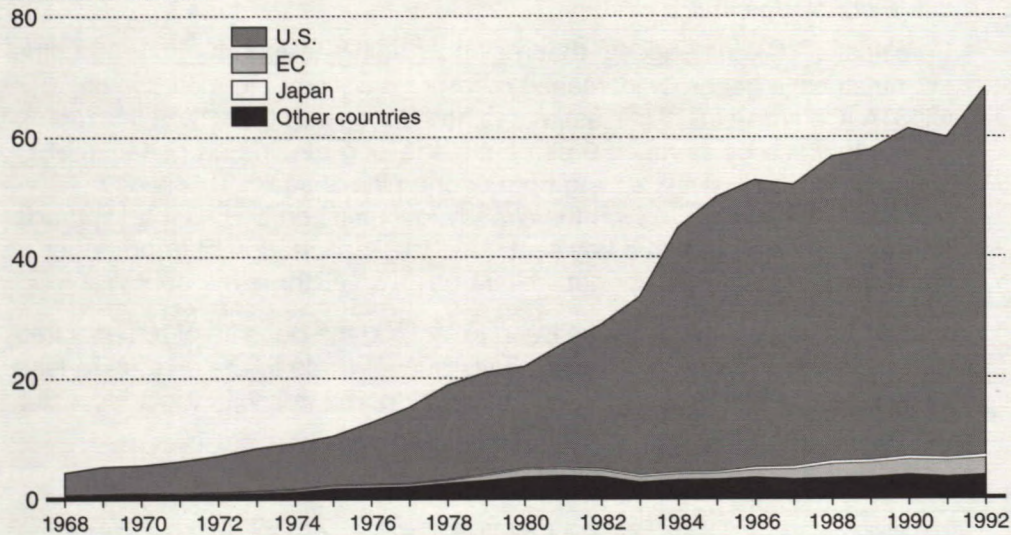


Source: Statistics Canada, *Exports by Commodities*, 1973 and 1993.

Chart 2.15

*Total Canadian exports of finished products
by destination: 1968 – 1992*

billions of dollars



Source: Statistics Canada: *Summary of Canadian International Trade*, 1968-1992.

The Uruguay Round agreement has made some progress in catching up with the liberalization provisions of the FTA and NAFTA and, indeed, in a few particular areas, has gone beyond the liberalization provisions of the FTA and NAFTA. In particular, it has succeeded in bringing trade in agriculture under new disciplines. The agreement also establishes new rules on the use of subsidies and countervailing duties that go a long way toward resolving this outstanding FTA and NAFTA issue between Canada and the United States. Therefore, the Uruguay Round not only complements but reinforces the progress achieved towards freer trade under the FTA and NAFTA.

This is not to say, of course, that the FTA, NAFTA and Uruguay Round agreements have addressed all of Canada's outstanding trade objectives, particularly vis-a-vis the United States. As seen recently, there is still considerable room for improvement in establishing more effective means for settling disputes in Canada-U.S. agricultural trade. And, while the Uruguay Round has established clearer rules on the use of trade remedies (especially with regard to subsidies and countervailing duties), Canada will be seeking further improvement in these areas (particularly with regard to anti-dumping) in negotiations with the United States and Mexico over the next two years.

Assessing regional trading agreements, the International Monetary Fund argues:⁷

Trade creation can in general be expected to be high when the regional trade arrangement is characterized by members at similar levels of development, low transport costs, an already high share of regional trade, and low common external protection... Regional arrangements between developing and industrial countries may benefit the former by improving the credibility of policies, thereby fostering a more stable macroeconomic environment, as well as by encouraging reforms that would be politically difficult to carry out unilaterally.

The IMF concludes that:

Empirical evidence suggests that regional trading arrangements in industrial countries have generally increased members' welfare... In the case of CUSTA (Canada-U.S. FTA), estimates had suggested that Canada's real GDP might rise by as much 9 percent in the long run, in part because of sharp productivity gains arising from economies of scale. This is now regarded as optimistic, given the already low tariffs on U.S.-Canadian trade and the exclusion of some key sectors... The liberalization of trade under NAFTA will probably confer net welfare gains on all three members...

Canadian trade strategy has thus been to lock up the benefits of regional free trade quickly, then wait for further benefits of freer trade to materialize under a multilateral trade agreement. This strategy has borne fruit with the successful conclusion of the Uruguay Round.

⁷ International Monetary Fund, "Regional Trading Agreements", Annex III, *World Economic Outlook*, May 1994, pp. 106-115.

3. THE URUGUAY ROUND AGREEMENT

The Uruguay Round package is the most ambitious multilateral trade agreement ever negotiated. In coverage of goods and number of participating countries, the negotiations were the largest multilateral tariff-cutting exercise ever conducted. The agreement will significantly improve market access by reducing tariffs on a wide range of manufactured and resource products. But it goes far beyond previous GATT Rounds in several important respects. It will:

- create a new organization, the World Trade Organization (WTO), to replace the GATT;
- substantially improve existing multilateral rules, especially those dealing with subsidies and countervailing duties and, to a more limited extent, antidumping and safeguards;
- bring agricultural trade under more effective disciplines and convert non-tariff barriers in agriculture to tariffs, impose restraints on agricultural subsidies that distort international trade, and reduce agricultural tariffs by one-third;
- bring international trade in textiles and apparel under more effective multilateral disciplines by gradually phasing out the system of bilateral trade restraints currently allowed under the Multi-Fiber Arrangements;
- introduce multilateral disciplines in the rapidly growing services sector;
- establish clear rules for the protection and enforcement of intellectual property rights; and
- significantly strengthen the dispute settlement procedures and the functioning of the multilateral system.

These features of the Uruguay Round agreement will go some distance towards addressing the problems discussed in Chapter 2. The agreement improves transparency and introduces further disciplines on non-tariff barriers. Perhaps most important to Canada, member countries will benefit from clearer and fairer rules for multilateral trade, such as rules for the treatment of subsidies, and more expeditious settlement of disputes. This chapter will describe these provisions in greater detail.

Tariff Reductions

Under the market access agreement, tariffs will be reduced globally by about one-third across a wide range of manufactured, resource, and agricultural products. These reductions are to be phased in, over a five-year period with some exceptions, and will be the deepest (measured on a trade-weighted basis) that Canada and its major trading partners apart from the United States have made in any GATT round. Preliminary estimates suggest, for example, that trade-weighted tariffs on industrial products in industrialized countries will be reduced by nearly 40 per cent, bringing weighted-average duties down from 6.4 per cent to 4.0 per cent. Moreover, with the participation of so many

more countries in this market access agreement, the benefits of more secure market access will be broadened well beyond previous rounds. The eventual accession of China, Russia and other countries to the WTO will bring additional benefits.

Canada's access to key overseas markets will be generally and significantly improved by Uruguay Round tariff reductions. European Union (EU) tariffs on Canadian industrial exports will be reduced by over 60 per cent. Japanese tariffs on our industrial exports will be reduced by 70 per cent and Korean tariffs will be reduced by about 50 per cent. Canada's tariffs on industrial imports will be reduced by about 50 per cent. These reductions, however, overstate the effective reductions to the extent that individual countries are already applying tariff rates which are below the most favoured nation rates (MFN) previously negotiated under the GATT for certain commodities.

For the first time, tariffs will be entirely eliminated across a range of important sectors, including paper and paper products, pharmaceuticals, beer, whisky and brandies, steel, construction equipment, agricultural equipment, medical equipment, office furniture and toys. These tariffs will be eliminated by most developed countries of the OECD and, with some exceptions, by several countries still classified as developing countries, such as Korea, Hong Kong and Singapore.

Tariffs will be substantially reduced in other industrial sectors as well. In chemicals and plastics, tariffs will be harmonized at low common rates of zero, 5.5 or 6.5 per cent, depending on the product. As a result, developed countries will reduce their tariffs in these sectors by over 40 per cent. Tariffs on non-ferrous metals will be harmonized (apart from aluminum) at 3 per cent (with some rates lower) by Japan, the U.S. and Canada while the European Union (EU) will make more selective reductions. Overall, developed countries will reduce tariffs in this sector by over 55 per cent.

Where sectoral agreements were not reached, tariffs will generally be reduced by smaller percentages, although the average should be about one-third. In these sectors, agreed tariff reductions show considerable diversity. In industrial electronics, the QUAD countries (the U.S., the EU, Japan and Canada) will reduce tariffs by over 50 per cent. In wood, the EU and Japan will both reduce tariffs on average by about 50 per cent (while Korea will reduce tariffs by about 45 per cent). On the other hand, in fish products, Europe will only reduce its tariffs on Canadian exports by about 8 per cent on average, while Japan and Korea will reduce rates by about 30 per cent. In aluminum, the EU will not reduce its current 6 per cent tariff on aluminum ingot. In footwear, developed countries will generally be making only minimal reductions.

In autos, Canada will reduce its vehicle tariff (currently 9.2 per cent) by one third, but will reduce its tariff on original equipment parts to match U.S. rates (these reductions were implemented unilaterally on January 1, 1994). The U.S. and EU will not be reducing their auto tariffs (currently at 2.5 per cent for the U.S. and 10 per cent for the EU).

On textiles and clothing, Canada is reducing tariff rates on apparel by about 25 per cent and tariff rates on textiles by 36 per cent; but the textile rate reductions are measured from our nominal GATT rates and not from the lower rates that we are already phasing in unilaterally.

Tariff reductions will start when the World Trade Organization comes into being.

Agriculture

Since the creation of the GATT over four decades ago, agricultural trade has largely escaped effective GATT disciplines. Countries have been able to resort to a variety of domestic and border measures, such as heavy subsidies and import quotas, that have served to distort international trade, reduce global welfare, and burden consumers with either higher prices or higher taxes.

The Uruguay Round agreement reduces tariffs in agriculture by an average of 36 per cent, with a minimum of 15 per cent per tariff line. Perhaps more important, it brings the pervasive non-tariff barriers in agriculture under new international disciplines that should eventually lead to a more efficient allocation of resources. In detail, the agricultural agreement makes the following provisions for the next six years:

- The value of export subsidies will be reduced by 36 per cent and the volume of subsidized exports by 21 per cent.
- Domestic subsidies that have been judged to distort international trade will be reduced by 20 per cent in aggregate. Subsidies that do not distort trade (for purposes such as regional development, research and environmental protection) will be exempted from the required cuts and protected from countervail actions.
- Quantitative barriers to imports will be replaced by tariff equivalents that are to be reduced by 15 per cent over six years.
- Because tariff equivalents will be high enough to restrict most imports, countries will have to meet minimum access commitments (MACs) to allow specified levels of imports (generally 3 per cent of domestic consumption, rising to 5 per cent by the end of the implementation period) at low tariff rates. To ensure predictability for the domestic industry, special measures have been established to counter import surges.

For Canada, the agricultural agreement should help to mitigate the subsidy wars between the United States and the European Union that have drained national treasuries and suppressed grain prices in recent years. It will result in better export opportunities for Canadian farmers, notably producers of beef

and pork products, wheat, barley, malt products, and aged cheddar and other cheese products. It will preserve our supply management sectors through a combination of tariffs and special safeguard mechanisms. The agreement will eliminate previously tolerated, country-specific trade barriers in agriculture, such as the U.S. GATT waiver for Section 22 quota actions, which had been used to restrict Canadian exports. It will greatly restrict the ability of governments to use health standards as a disguised restriction on trade.

As noted in the previous chapter, however, agricultural trade remains an area where further progress must be made multilaterally and, as recent difficulties in resolving agricultural differences between Canada and the U.S. demonstrate, under the NAFTA.

Textiles and Apparel

Like agriculture, textiles and apparel have traditionally not been subject to normal GATT disciplines. Instead, developed and developing countries have negotiated a network of bilateral restraints under successive Multi-Fiber Arrangements (MFAs). The result has been a system that imposed high costs on consumers in developed countries and discriminated against developing countries that did not have historical quota "rights".

Under the Uruguay Round agreement, the discriminatory, trade-distorting and costly MFA regime is to be gradually phased out over 10 years. Then, trade in textiles and apparel will be brought under the regular multilateral rules, which generally prohibit quantitative restrictions or the negotiation of bilateral restraints.

Under the new rules, developed countries will be required to eliminate MFA quotas on imports of textile and clothing products from developing countries. Quotas covering about one half of current imports are to be liberalized in three stages over the next 10 years, with the remainder to be eliminated after the transition period has ended. This gradual transition schedule should provide the Canadian industry with ample breathing space to adjust to increased competition. In addition, a new safeguard mechanism will protect the Canadian industry against unforeseen import surges from newly emerging sources during the transition period.

Services

The GATT rules have traditionally applied only to trade in goods, leaving the rapidly growing area of services outside any effective system of multilateral disciplines. In such sectors as financial services, countries have consequently had to rely on the application of reciprocity and moral suasion to improve access to foreign markets.

Under the new General Agreement on Trade in Services (GATS), rules have been established to govern international trade in services based on the twin principles of MFN treatment and National Treatment. MFN treatment ensures that liberalization commitments are multilateralized to the widest possible

extent; that is, concessions made to the most favoured nation among a country's trading partners are generalized to all other members. National Treatment ensures that foreign service providers are not discriminated against because of their country of origin, but receive the same treatment as "nationals". The GATS contains specific commitments by signatories to begin to open their markets to a broad range of services, including financial, professional (such as engineering, legal, and architectural), telecommunications, computer, transportation, and tourism. Negotiations will continue over the next several years to extend these commitments.

Canada has already significantly liberalized trade in services with the United States and Mexico under the NAFTA. The GATS agreement can be seen as a means of extending this liberalization to countries outside North America. The opening of new opportunities for Canadian financial institutions in the fast-growing markets of South East Asia and Korea, for example, was a high priority for Canada in the GATS negotiations. Canada sought liberalization commitments across the broadest possible range of financial services. Although the objective was achieved only in part, an important base has been established on which future negotiations can build.

Intellectual Property

As in services, the agreement on Trade-Related Intellectual Property (TRIPs) will, for the first time, bring the protection of intellectual property under multilateral trade disciplines. The TRIPs agreement establishes minimum standards that countries must adopt to protect copyrights, trademarks, and geographical indications. It provides for National Treatment in enforcement provisions of national laws (such as the U.S. "Section 337" law dealing with intellectual property rights) and access to dispute settlement procedures under the World Trade Organization, if countries fail to live up to their commitments.

For Canada, the TRIPs agreement extends many of the NAFTA protections to markets outside North America. Among the key beneficiaries will be producers of knowledge, research, or design-intensive goods, such as computer software, industrial designs, or pharmaceuticals. These are areas where growth and development are critically important to an advanced industrialized economy.

Rules and Dispute Settlement

The Uruguay Round agreement has significantly improved trade rules and dispute settlement procedures. This should provide greater certainty to firms planning to invest in production for export markets.

The new Agreement on Subsidies and Countervailing Measures is particularly important to Canada. It provides, for the first time in any international agreement, a clear definition of a subsidy. In other words, it defines what forms of government assistance can be subject to trade actions.

The new rules specify that certain subsidies for regional development, research and development, and the environment are non-actionable, that is they will not be subject to countervail actions, provided they are administered in a way consistent with the agreement. These disciplines will apply equally to federal and provincial governments.

In addition to subsidies and countervail, the Uruguay Round agreement will also include some improvements in the rules governing the use of anti-dumping duties. New de minimus, injury and sunset rules should reduce the ability of domestic producers to use anti-dumping laws to harass exporters from other countries, but they still do not go far enough to satisfy Canadian concerns with the misuse of antidumping in other countries.

The dispute settlement mechanism has been significantly improved. In the past, this mechanism has been weakened by time-consuming procedures and the possibility for an aggrieved party to effectively veto a finding it found objectionable. New rules have made the system more efficient; the right of veto by a single member has gone. The result should be a system that is able to resolve disputes between parties more quickly and more effectively.

All of these new rules and dispute settlement procedures will come under the umbrella of the new World Trade Organization. In addition to its role in dispute resolution, this new organization has been given a stronger legal and institutional basis that should enable it to play a key role in advancing the process of multilateral trade liberalization in the future.

4. ECONOMIC EFFECTS ON CANADA OF THE URUGUAY ROUND AGREEMENT

As the most comprehensive trade negotiation since the beginning of GATT, the Uruguay Round is expected to generate large economic benefits for the world economy, just as previous rounds did, as outlined in Chapter 2. This chapter reviews both the qualitative and the quantitative gains expected to emerge for the world economy and Canada.

Quantifying the Gains for the International Economy

In estimating the impact of a structural measure like freer trade, economists usually concentrate on permanent effects after the policy change is fully implemented and the structure of the economy has adapted to it. The standard analytic approach employs economic models to calculate the effects of policy change on economic behaviour and performance. Economic models are designed to approximate the basic behaviour and functioning of the economy as well as the key interactions among different sectors. Simulations are made of conditions both before and after the policy change. The economic impacts of the change are then measured by the differences in the simulation results for key economic variables such as real income, real output, and productivity.

Most of the substantial provisions of the latest GATT round, however, escape precise and reliable quantification, despite progress in developing the tools of empirical economic analysis. This is because the quantification of effects requires the quantification of changes in protection coming from all sources. One source is the reduced protection that comes, not from lower tariffs, which are already quantified, but from more effective definitions, rules, and dispute settlement mechanisms. Such changes in trade administration simply cannot be quantified, but experience shows that the kind of reduction in uncertainty they bring about will improve economic performance. Both producers and consumers know well that reducing uncertainty can be critical in making good economic decisions.

In the case of the Uruguay Round, the gains from clearer rules, dispute settlement, and increased transparency are likely to be larger than the gains from pure tariff changes. Dynamic gains are also not quantified. Since economists are therefore only able to quantify the effects of tariff changes and the extension of GATT to include additional sectors, they will underestimate the benefits of the Agreement, probably by a substantial amount.

Available studies of the effects of the agreement on the global economy are based on the *Draft Final Act (DFA) of 1991*, the so-called Dunkel Text mentioned in the Introduction. The actual agreement, however, is similar enough to the DFA in most respects to make the estimates cited here fairly reliable as a conservative assessment of the actual agreement's impact, in so far as its quantifiable effects are concerned.

Table 4.1 summarizes the effects on real incomes estimated in a number of studies. The table presents two types of effect. One is for partial multisector agreements and provides smaller income gains but is more consistent with the final agreement. The other is for full multisector agreements. Most estimates of partial trade liberalization show gains for the world economy of about 1 per cent. Full trade liberalization going beyond the DFA would lead to much larger gains – in the neighbourhood of 4 to 5 per cent. These full multisector simulations are useful in highlighting the scope remaining for trade liberalization after the Uruguay Round.

Table 4.1

Multilateral trade liberalization: impact on world real incomes

Study	Assumed liberalization	Per cent change
OECD1 (1993)	Partial multisector	0.9
OECD2 (1993)	Partial multisector	0.7
OECD (1989)	Full agriculture	0.9 ¹
Nguyen et al (1993)	Partial multisector	1.1
Peterson (1992)	Partial multisector	1.0
Peterson (1992)	Full multisector	2.0
Stoeckel (1990)	Full multisector	5.0
DRI (1993)	Full multisector	4.5

¹ OECD countries only.

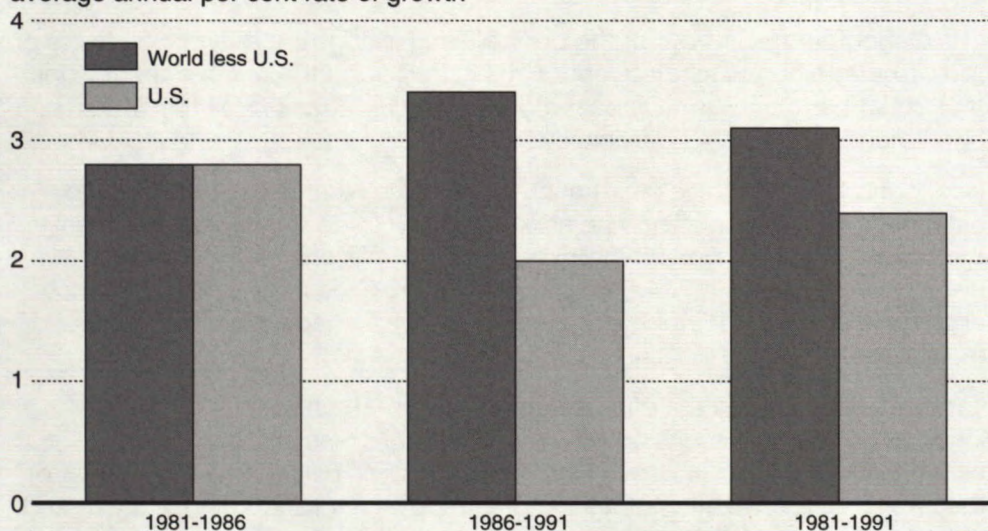
Quantifying the Gains for the Canadian Economy

Charts 4.1 and 4.2 provide an intuitive explanation of why Canada is likely to gain from the latest GATT agreement. Almost 80 per cent of Canada's trade is with the U.S. With the increased opening of world markets under the Uruguay Round, however, Canada should be able not only to diversify its exports but to experience higher rates of growth as well, since the trend rate of growth of the world economy is likely higher than that of the U.S. economy (Chart 4.1). In addition, Chart 4.2 shows that Canada should benefit increasingly from rapidly growing world demand for imports of manufactured goods.

Chart 4.1

*U.S. and global GDP growth
1981-1991*

average annual per cent rate of growth

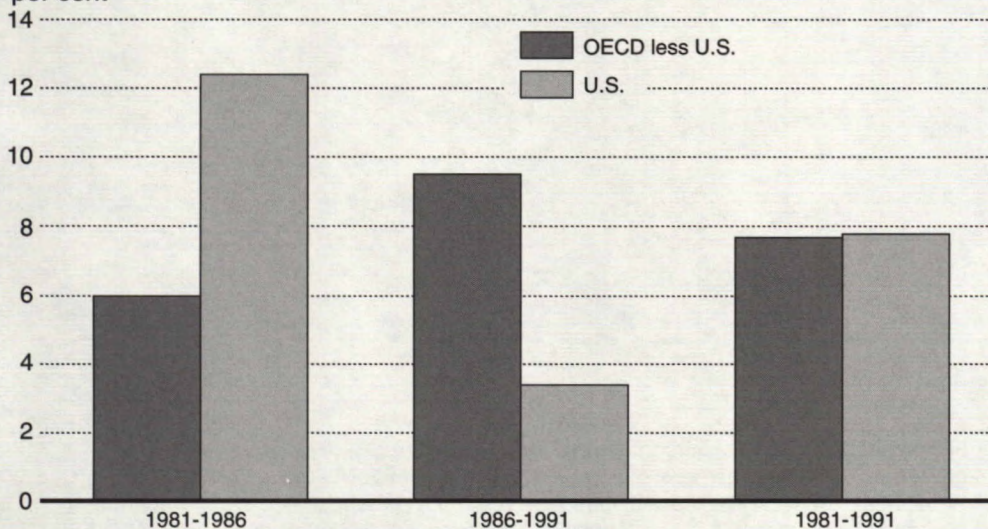


Source: DRI, *World Economic Outlook*, 1993.

Chart 4.2

*Imports of manufactured goods, 1981-1991
Average annual growth rates*

per cent



Source: OECD, *Database on International Trade and Competitiveness Indicators*.

The Department of Finance has used the same standard methodology as other researchers to determine the impacts of the Uruguay Round on the Canadian economy. The Department employed its large scale General Equilibrium Trade (GET) model, which was also used to estimate the effects of the Canada-U.S. Free Trade Agreement (FTA).⁸

The Department's analysis of the permanent, or long-run, economic effects of the Uruguay Round included reductions in tariffs and those trade restrictions that could be quantified. It is based on the actual provisions of the final agreement rather than the Dunkel text.

Box 1 and Chart 4.3 give information on how the Finance model works to estimate changes in real income as a result of a trade agreement, such as the Uruguay Round. Box 2 highlights the key provisions of the Round that are modelled. Tables 4.2, 4.3, and 4.4 summarize the results of the Finance analysis and the other studies of impacts on the Canadian economy of multilateral trade liberalization.

Table 4.2 summarizes the effects of the Uruguay Round on Canadian real income. It presents results of five studies by other researchers and two estimates by Finance. The two Finance simulations differ in their treatment of the impact of liberalization of agricultural trade as explained below. Estimated gains in real income in Table 4.2 range from 0.2 to 1.3 per cent. As Chart 4.3 shows, various components of the agreement have one major impact: they improve relative prices of various commodities produced in the economy; this leads to improved resource allocation and gains in total factor productivity. Further, these price changes lead to consumption gains, as discussed in Chapter 2. Both the production and consumption gains contribute to raising real incomes.

⁸ For details on the structure of the model and the methodology used to quantify the gains from a trade agreement, see Department of Finance, *The Canada-U.S. Free Trade Agreement: An Economic Assessment from a Canadian Perspective*, 1989, Department of Supply and Services, Ottawa. Annex 2 and Annex 3 of this publication give detailed information on the structure of the model and estimation methodologies.

Box 1

**Modelling the Agreement:
The General Equilibrium Trade Model**

The standard methodology in estimating the impacts of the policy change on the economy, whether over the medium term or the long run, is to simulate an economic model incorporating and excluding the policy change and to compare the simulation results. The differences in the values of key economic variables in the two simulations impacts of the policy change. The two key requirements for such simulation exercises are: information on the nature of the policy change, and the use of an appropriate economic model.

In preparing the effects of the Uruguay Round, these two requirements implied:

- on the policy front, detailed calculations of the reductions in barriers to trade as described in Chapter 3; and
- on the model front, the use of a general equilibrium model.

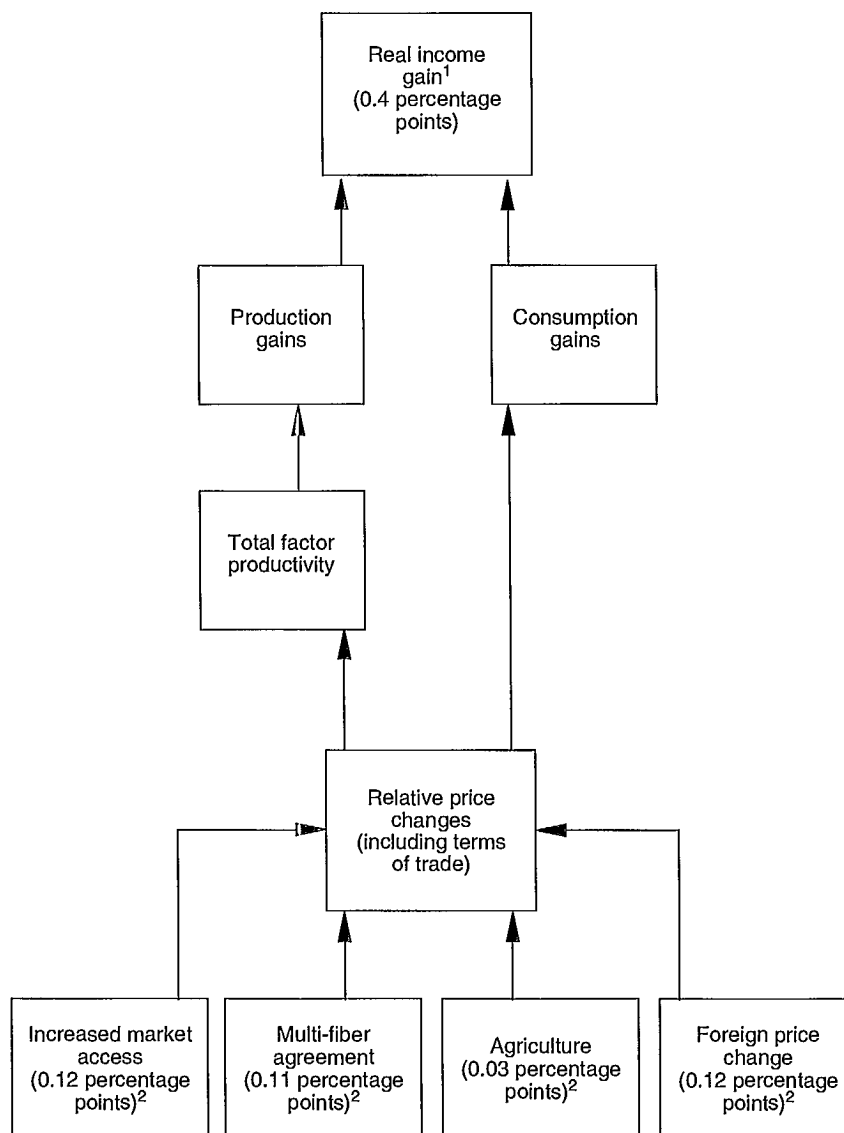
The Department of Finance's general equilibrium trade model is in the tradition of applied general equilibrium modelling in that it focuses on the allocation of the economy's limited resources among competing uses. The model assumes full utilization of resources so that changes in relative prices lead only to a shift in employment across sectors with no change to the overall level of employment unless the supply of labour changes. The model provides estimates of the long-term, or permanent, effects of policy changes once the economy has fully adjusted to the new policy environment.

The model is first simulated in the absence of a policy change. In the presence of distorting tariffs and non-tariff barriers the emerging relative prices have negative effects on the economic performance through resource misallocation. In the simulation of the Uruguay Round, these distorting tariff and non-tariff barriers are scaled down in line with the provisions of the agreement (see next box). This change in relative prices shifts resources to a more efficient use. As a result of this shift in resources, total factor productivity – that is the average efficiency of all resources combined – rises. For the same overall supply of resources, real income therefore is higher with the removal of trade barriers.

Quantitative estimates of the economic impacts of free trade depend crucially on the assumptions about the competitive pricing behaviour of Canadian producers and the response of demand for Canadian exports and imports to price changes. The Department of Finance's general equilibrium model assumes that Canadian firms set prices so as to remain competitive with imports, and restructure so as to exploit more fully the economies of large scale production. It also assumes that trade is quite responsive to price changes.

Chart 4.3

Sources of measurable gains in real income from the Uruguay Round



¹ The contributions of various sources of the impact are approximate, as they can change marginally depending upon their sequence, but without affecting the aggregate impact.

² Estimates provided are for contributions to real income change.

Box 2**Modelling the Agreement:
Policy Change**

The analysis models the following Uruguay Round provisions:

- elimination of all tariffs on a number of goods;
- reduction by 30 per cent of most other tariff rates over five years, with some exceptions;
- elimination of many quantitative restrictions on imports;
- gradual reduction of subsidies in agriculture; and
- the replacement of non-tariff barriers in agriculture by a set of tariffs to be reduced by a minimum of 15 per cent, with an overall reduction of 36 per cent over six years.

Table 4.2

Multilateral trade liberalization: impact on Canadian real income

Study	Assumed liberalization	Per cent change
OECD1 (1993)	Partial multisector	1.2
OECD2 (1993)	Partial multisector	0.2
OECD3 (1989)	Full agriculture	1.3
Nguyen et al (1993)	Partial multisector	0.9
Tyres and Anderson (1992)	Partial agriculture	0.2
Finance – scenario 1	Partial multisector with larger reductions in agriculture	0.8
Finance – scenario 2	Partial multisector	0.4

The Finance simulations developed Scenario 1 as a benchmark with assumptions comparable to those of other researchers. It generates a real income gain of 0.8 per cent. Scenario 2 updates and refines Scenario 1. It therefore provides a more accurate estimate of the effects of the Uruguay Round: a gain of 0.4 per cent in real income. This translates into a real income increase of \$400 in 1993 dollars for a family of four on an annual basis in perpetuity. The treatment of agriculture is critical to the difference between the two scenarios.

Scenario 1 incorporates the following assumptions on agriculture:

- Domestic support is reduced by 20 per cent over the next six years from its base period (1986-88) level.
- Export subsidies in the base period (1986-88) are reduced consistent with the agreement, which calls for a 36-per-cent reduction in value and a 21 per-cent reduction in volume.
- Minimum access is increased for products where imports were less than 3 per cent of domestic consumption in 1986-88 to 5 per cent over the six-year period.
- Tariffs protecting supply-managed products subject to the minimum access requirements are reduced from 1986-88 levels by 36 per cent over the six-year period. The reduction is actually from the tariff-equivalent levels associated with the former quotas.

This scenario, however, is not accurate, since other researchers, conducting their studies before the final agreement, chose base-period tariff-equivalents and subsidy levels that turned out to be inappropriate at the conclusion of the Uruguay Round. Scenario 2 updates the starting point tariff-equivalents, export subsidies, and domestic support levels. The smaller real income impact of this scenario compared with Scenario 1 is attributable to the higher tariff-equivalents for supply-managed products agreed in the Uruguay Round and the fact that Canadian grain subsidies have already fallen significantly since the 1986-88 base period.

Chart 4.3 provide a breakdown of the aggregate gain of 0.4 percentage points in real income reported in Table 4.2 into gains emerging from the various main components of the agreement, as follows.

- Increased market access through lower tariffs and the wider coverage of trade liberalization is estimated to add 0.12 per cent to real income. The Uruguay Round's impacts on Canada are relatively small because of the ongoing liberalization introduced earlier under the FTA and NAFTA.
- The changes to the Multi-Fibre Agreement add a further small gain of 0.11 percentage points to real income.
- Changes in the agriculture sector add 0.03 percentage points to the real income gain.
- The OECD estimates the Uruguay Round will raise international prices for Canada's exports; this adds 0.12 percentage points to the income gain.

Table 4.3

Multilateral trade liberalization: Finance-estimated impacts on the Canadian economy (Scenario 2)

Variable	Per cent change
Real Income	0.4
Real Output	0.3
Manufacturing	0.5
Non-manufacturing	0.3
Resource Industries	1.8
Non-traded Goods	0.1
Labour Reallocation	0.2
Employment	0
Manufacturing	-0.2
Non-manufacturing	0.0
Resources	1.7
Non-traded Goods	-0.1

Table 4.3 provides further details of the Finance results based on the scenario of a 0.4-per-cent increase in real income. Information is provided for the effects on real output, the need for labour reallocation among sectors, and sectoral employment changes. The real output gain for the Canadian economy is expected to be 0.3 per cent, slightly less than the real income effect. The larger real income effect results from the gain in the Canadian terms of trade not included in the real output effect. All major sectors of the economy gain, with the resource and manufacturing sectors gaining the most.

One reason for the relatively small gain from the Uruguay Round for Canada is our prior participation in the Canada-United States Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA). Had Canada not participated in these agreements, the Uruguay Round would have meant substantially larger reductions in Canada and U.S. tariffs on their mutual two-way trade. These reductions had already been made as a result of the FTA and NAFTA. A major part of the income gains from the tariff reductions attributed to the FTA/NAFTA would then have been part of the Uruguay Round real income gains. Since the FTA was estimated to increase Canadian real income by 2.5 per cent, inclusion of parts of these gains would have considerably boosted the estimated impact of the Uruguay Round. The real income gains attributable to the Uruguay Round in this study are only the *quantifiable incremental gains* resulting from additional trade liberalisation over and above the FTA/NAFTA.

Employment gains by sector are modest, except in the resources sectors. By design, the general equilibrium model does not calculate overall employment effects. The main aim of these models is to capture gains in efficiency and productivity. Employment effects are marginal in this analysis because the model basically ignores the key channels of employment effects.

The true long-run employment gains from this Round will depend on the extent to which the labour force expands through increased participation rates, responding to higher real wages and better quality jobs. This is not captured in the Finance GE model. Economic analysis suggests these effects may be large, but precise estimates are difficult to obtain and hence are left out of the modelling process.

While the Round is expected to benefit the whole country and its major sectors, the effects on particular industries may be negative. Whether Canadian producers maintain a comparative advantage following the agreement will be one determinant of industrial impacts. Industries that work hard to maintain and develop such an advantage stand to benefit, expand their production and exports, and hire additional workers. Industries that lag may lose production and workers to the expanding ones or to imports.

The difficulty of determining how individual industries will respond affects the reliability of applying general equilibrium estimates to them. The success or failure of an industry depends not just on the new opportunities created by the Round, but also on whether the industry exploits them. An industry that finds the prices of its products falling may end up gaining if it raises the level of production efficiency through larger production runs, better management, reductions in costs, or better use of technology. Alternatively, an industry may fail to gain, despite increased opportunities and higher prices for its products, if such opportunities are not exploited. These differences in the ability of different industries to exploit the opportunities provided by the Round cancel one another at the aggregate level, making the overall estimates quite reliable.

Non-Quantifiable Gains from the Uruguay Round

The estimated impacts reported above are underestimates, not only because they do not take into account non-quantifiable benefits under the agreement, but also because they are "static" and take no account of the "dynamic" effects.

The provisions of the Uruguay Round that could not be quantified are as follows:

- Clearer definitions of subsidies, clearer and stronger rules governing trade, and improved dispute settlement mechanisms.
- The liberalization of trade in services which will undoubtedly bring benefits. However, international data in this area are hard to obtain and unreliable; hence services are generally ignored in economic model simulations.

- Better worldwide protection of intellectual property rights, which some evidence suggests, could lead to substantial economic gains, especially in investment.⁹
- The positive impacts of converting NTBs into tariff equivalents. These are likely to be underestimated due to conservative estimation techniques. The NTBs conversions are a key component of the agreement in agriculture, textile and clothing.

In addition, dynamic effects, as described earlier, could not be quantified. They arise as trade promotes production, increases competition, makes it easier to exploit economies of scale and scope, encourages capital formation, enhances diffusion of technologies and best-practice techniques, and encourages firms to adjust rapidly to changing circumstances and remain efficient and competitive.

Adding the benefits that cannot be precisely measured to the quantifiable benefits, the result will be a significant boost to the world and Canadian economies. It could not have come at a better time, with much of the world mired in an extended economic slowdown. Trade opportunities growing out of this agreement should generate and broaden economic growth and job creation the world over.

⁹ Coe, D.T. and E. Helpman, *International R&D spillovers*, IMF, working paper WP/93/84, Washington, D.C. 1993.

5. CONCLUDING OBSERVATIONS

Already the most extensive accord in the history of the GATT, the Uruguay Round agreement will gain in importance as large countries currently outside the GATT, such as China and Russia, join the new World Trade Organization (WTO). The Uruguay Round has developed rules and extended liberalization to significant areas of the economy including agriculture, textiles, services, trade-related investment, and intellectual property rights. The development of clearer definitions of subsidies, improved trade rules, and a strengthened dispute settlement mechanism are other major achievements.

The latest Round liberalizes trade by considerably reducing the scope and means of protection. It reduces non-transparent means of protection such as quotas by converting them into transparent protection in the form of tariffs.

Many researchers have undertaken studies to estimate the gains from the Uruguay Round. Given the nature of the agreement, quantification is difficult and, in all probability, underestimates the benefits of the Round. Experience suggests that the clearer, more predictable and fairer trade rules that are the cornerstone of this agreement, and new provisions for services trade, trade-related investment, and intellectual property will bring substantial economic gains. "Dynamic" gains from the agreement – such as increased competition, technology development, and capital formation – constitute another area of gains that cannot not be modelled.

Estimating the quantifiable gains of the Round alone, researchers have found that world incomes would rise by about 1 per cent a year on a continuing basis. At a time when most of the world economy is mired in economic slowdown, this is a useful and significant impetus to economic growth and job creation.

Researchers have estimated the quantifiable gains for Canada at between 0.2 and 1.2 per cent of national income. The Department of Finance estimates a real income increase of 0.4 per cent, which translates into an ongoing gain of \$400 in 1993 dollars for a family of four.

For several reasons, the agreement will not create additional adjustment pressures in the Canadian economy. First, Canada's additional liberalization obligations will be modest, given the liberalization already undertaken in the FTA and NAFTA. Second, additional changes under the agreement will be introduced slowly over a long transition phase. Third, in the important agricultural sector, Canada will be able to continue to protect, over the length of the agreement, its supply-managed industries. Fourth, given the dynamism of the Canadian economy, where four to five million workers change jobs every year, absorbing the minor adjustments necessitated by the new agreement will be a small task. Finally, Canada has in place a range of generally-available adjustment programs for both workers and firms that can fully accommodate the expected modest increase in adjustment needs.