

### Learning Objectives

- We now turn our attention to examine a mini-version of global free trade, or preferential free trade agreements (PTAs). Members who have signed the agreement will enjoy free trade (with some limitations), but outsiders will not benefit from the agreement.
- Show that PTAs are not necessarily beneficial to the member countries.
- Explore the formation and economic effects of the North American Free Trade Agreement (NAFTA) which includes Canada, the US and Mexico, as well as other free trade agreements signed by Canada.
- Discuss the formation and economic effects of the European Union, which includes 27 countries.

### 5.1 Motivation

Because the WTO has 159 member countries and it may be difficult to reach multilateral or global free trade across all members, the GATT/WTO allows the formation of free trade blocs. A trade bloc is formed when countries, usually in geographical proximity, join together to form a regional or preferential free trade agreement. Today more than 150 countries participate in more than 200 preferential trade agreements (PTAs). The members of the PTAs tend to enjoy a higher degree of free trade amongst themselves, but such benefits or trade barrier exemptions do not apply to non-members. Hence, PTAs favour insiders and discriminate against outsiders.

At first glance, PTAs violate the GATT principle of most favoured nation status - that is, all member countries are to be subjected to the same set of treatments for each other. The WTO agreements recognize that PTAs and closer economic integration can potentially benefit countries. However, it also realizes that PTAs could hurt the trade interests of other countries. To balance both concerns, GATT's Article 24 allows PTAs to be formed as a special exception, provided that certain strict criteria are met. In particular, Article 24 says PTAs should facilitate trade flow more freely amongst the member countries without raising trade barriers against non-members. In other words, PTAs should complement the WTO's goal of striving toward global free trade and not threaten it.

Two of the most frequently asked questions about PTAs are whether these regional groups always benefit members and whether they help or hinder the WTO's multilateral or global trading system. Removing trade barriers may not necessarily benefit even the members because a country suffers terms of trade and government revenue losses when trade barriers such as tariffs are removed. The formation of PTAs may also hinder global trade negotiations even if the Article 24 conditions are met. The main reason is because if many countries already enjoy regional free trade amongst themselves, they have less to lose even if global free trade negotiations fail. Hence, countries that belong to PTAs may be less willing to make concessions to reach a set of global free trade conditions. However, some economists also argue that because smaller countries can form PTAs and maintain a more unified front, they have more bargaining power when negotiating with economic powers such as the US and the EU. Whether PTAs help or hinder multilateral free trade development is a widely debated issue.

Let us summarize the different settings that we would analyze. **Figure 5.1** shows that we have compared autarky (1) versus free trade (2) in Chapters 1 and 2, and then we moved onto free trade (2) versus trade

barriers (3) in Chapters 3 and 4. We will now compare trade barriers (3) versus PTAs (4). Some types of pre-existing trade barriers must exist before countries would have incentives to form PTAs. We begin with trade barriers as the old situation and PTAs as the new situation. As in previous chapters, we can compare the surplus changes under these two situations.

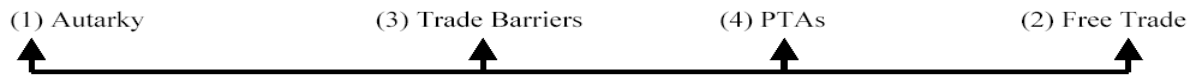


Figure 5.1 Comparison of Total Surplus under Different Settings

## 5.2 Preferential Trade Agreements (PTAs)

### *Types of PTAs*

We can broadly define two types of PTAs based on their degree of economic integration. The first type is free trade area (FTA). With an FTA, members eliminate trade restrictions amongst themselves (although exceptions can exist), but maintain own trade barriers against non-members. The most notable FTA in North America is the North American Free Trade Agreement (NAFTA), involving Canada, the US, and Mexico. Under NAFTA, these three countries enjoy free trade, but with notable exceptions in products such as softwood lumber and agriculture. Also, countries are allowed to use antidumping and countervailing measures on each other. The main freedom that an FTA offers is that each member country can sign free trade agreements with outsiders. Canada has signed free trade agreements with various countries such as Chile, Columbia, Peru, Norway, Switzerland, Iceland, and Liechtenstein.

The second type of PTAs is customs union (CU). Under a CU, members enjoy a high degree of free trade, but they have to impose uniform trade regulations against outsiders. Member countries cannot sign individual free trade agreements with other countries. The most notable example of CU is perhaps the European Union (EU). CUs tend to have a higher degree of integration than FTAs. Members within a CU usually have other forms of integration, such as free labour mobility or even the same currency.

### *Formation of a PTA*

We will focus our welfare analysis of forming PTAs by examining the effects on the member countries. Fortunately, because we focus on the insiders, the welfare analysis will be the same for both FTAs and CUs. We want to know if H signing a PTA with F will generate total surplus losses or benefits for H.

We will use the same total surplus tools that we developed in Chapter 1. The only difference is that we now have three countries or regions. We have H, F, and the rest of the world (ROW). Before the PTA, H imports from the cheaper supplier of the two, F or the ROW, and imposes identical import restrictions on both countries. For simplicity, we will focus on tariffs. We assume that H and F will form a PTA, after which any imports from F will not be subjected to tariffs. If H still imports from the ROW, then imports will still be taxed. We want to see if H's total surplus will rise or fall because of this PTA, but we can infer that the ROW will be either indifferent or hurt because it will lose any previous market it had in the H country.

For simplicity, we will also assume that the world price of  $X_1$ , which is  $P_1^W$ , will not be affected by the formation of the PTA. This is implicitly assuming that the H + F union is small enough not to affect the world price.  $P_1^W$  will remain constant before and after the PTA.

Suppose before the PTA, the following prices were applicable:

$$\underline{H} \\ P_{AUT} = \$5$$

$$\underline{F} \\ P_{FT}^F = \$2$$

$$\underline{ROW} \\ P_{FT}^{ROW} = \$1.5$$

For now, let  $\tau_1^H = 100\%$ , which is non-discriminatory and is applied to imports from F and ROW. However, we can tell that H will import from the ROW because the import prices inclusive of the tariff are \$4 (from F) and \$3 (from the ROW). Obviously, H will import from the ROW at \$3 per unit, of which \$1.5 goes to the ROW and \$1.5 in tariff revenue goes to the H government.

Now suppose H signs an FTA with F, but still maintains the tariff against the ROW:

$$\underline{H} \\ P_{AUT} = \$5$$

$$\underline{F} \\ P_{FT}^F = \$2$$

$$\underline{ROW} \\ P_1^{ROW} = \$3 \text{ (with tariff)}$$

H will now import from F because the import price is \$2 instead of \$3 from the ROW. Obviously, F will gain and the ROW will lose. But what about the total surplus effect on H? To see this, we can examine the total surplus changes graphically, very much in the same way we did in previous chapters.

### *Demonstrating PTAs Graphically*

Before the PTA, the prices \$1.5 and \$3 are relevant because the difference of the two prices gives us tariff revenue per unit, whereas the price \$3 gives us the import quantity from the ROW. After the PTA, the price \$2 is also relevant because it gives us the import quantity from F. Notice that H would not collect tariff revenue anymore after it signs the PTA with F. **Figure 5.2** shows the results.

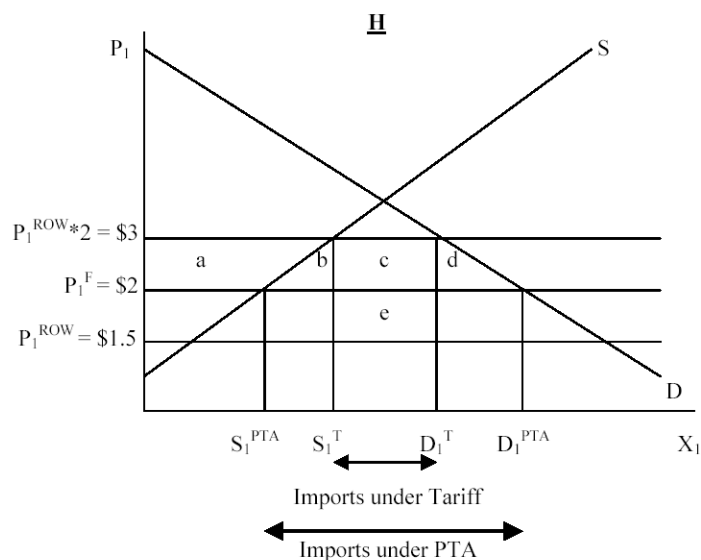


Figure 5.2 Welfare Effects on H as a Result of PTA

We compare H's welfare under tariff (old situation) with H's welfare under PTA (new situation):

$$\Delta CS = (a + b + c + d) \text{ (Compare } P_1^F \text{ and } P_1^{ROW} \times 2.)$$

$$\Delta PS = - (a) \text{ (Compare } P_1^F \text{ and } P_1^{ROW} \times 2.)$$

$$\Delta TR = - (c + e) \text{ (Import Quantity under Tariff } \times (P_1^{ROW} \times 2 - P_1^{ROW}), \text{ where TR is tariff revenue.)}$$

$$\text{Net } \Delta TS = (b + d) - e, \text{ which can be positive, negative, or equal to zero.}$$

Interestingly, H can gain or lose as a result of forming a PTA with F. However, if we take a close look at the total surplus changes, it should not be too surprising. When H goes from free trade to tariff, H loses  $(b + d)$  due to production and consumption efficiency losses, but gains through terms of trade because of “e”. Now H does the opposite: Removes a tariff and have free trade with F. H gains back the efficiency losses  $(b + d)$  but loses terms of trade associated with area “e.” The area “b” corresponds to H producing fewer  $X_1$ , which it has not been producing efficiently, whereas the area “d” corresponds to gains from higher consumption. The terms of trade loss “e” is because H was importing from the cheaper source (the ROW) before the PTA, but now it is importing from the more expensive F. For each unit that was traded, H as a country was paying only \$1.5, but now it is paying \$2. Note that even though it costs H as a country to import more from F, H consumers will import from F because the tariff does not apply to imports from F.

In conclusion, H may or may not gain from signing a PTA with F. However, H may still sign the PTA with F even if it expects a drop in total surplus if lobbying groups within H strongly push for such an agreement. From our example, we can also conclude that F benefits from the PTA due to gaining market share, but the ROW will lose because it does not export to H anymore. The total effects on the world as a whole, however, are ambiguous.

### *Trade Creation and Trade Diversion Effects*

The literature generalizes the effects of the formation of PTAs into two types: trade creation and trade diversion. Trade creation means that as a result of the PTAs, trade volume increases, which is a beneficial effect. Trade is being created across the member countries, which would raise production efficiency in the efficient, exporting countries and increase consumption in the importing countries. This is a step closer to global free trade.

The preferential treatment offered by PTAs, however, would create a negative effect, which is often referred to as trade diversion effect. Because imports from F are now tariff-free, H diverts its imports from the more efficient producer, which is the ROW. The inputs in the world are used less efficiently because the less efficient producer, F, is now producing more of  $X_1$ . We may be tempted to argue that H may not care, but it should care. The reason is because F is the less efficient producer, which is why the price F charges is \$2, not the \$1.5 that the ROW charges. We can think of the terms of trade loss of H as being caused by the inefficiency of the F producers relative to the ROW producers. Because H diverts its import source from the ROW to F, H loses because of trade diversion.

The overall welfare effects on H depend on whether the trade creation beneficial effects can outweigh the trade diversion harmful effects. Graphically, we have seen these effects correspond to “ $b + d$ ” and “e.” Also note that the trade diversion effect can still arise even if the WTO requires no increase in tariffs against the ROW due to the PTA. Our tariff rate is still at 100% (from \$1.5 to \$3) against the ROW after the PTA.

## 5.3 Data and Interpretation

### *Case Study #1: The North American Free Trade Agreement (NAFTA)*

#### 1. Brief history

Historically, the US has been Canada's major trading partner over the past century. In the early 1980s, demand for protectionism in the US intensified, mainly due to the second OPEC crisis and the subsequent recession. Given Canada's dependence on the US economy (approximately 75% of Canada's trade is with the US, and trade accounts for about 40% of Canada's GDP), Canada began talks with the US and signed the Canada-US Free Trade Agreement (CUSTA) in 1989. CUSTA was to mainly serve as a *guarantee* to Canada's existing access to the American market. Canada is not expected to lose or gain much from CUSTA, given its status quo. Mexico joined in 1994, and the free trade agreement became NAFTA.

Under NAFTA, all tariffs and quotas on manufactured and agricultural products would be eliminated over 5 to 15 years of transitional period. To qualify for duty-free status, the goods must meet rules of origin requirements. For automobiles, at least 62.5% of the value of a car must be from North American labour and materials; textiles must be made of North American fibers; and for all other products, at least 50% of the value must be from North America.

Why was Mexico included? A bit of historical background is necessary. In the 1940s and 1950s, the Mexican government encouraged local manufacturing businesses through production subsidies and restrictions of imports. Mexico was almost closed to imports by imposing trade barriers. In the beginning, its agricultural exports brought in enough funds to pay for the imported inputs and subsidies for the manufacturing industries. However, not much development or productivity improvements were realized in the agricultural sector. By the end of the 1960s, the inflow of funds from agriculture was not enough to pay for the imported inputs for the manufacturing industries. But with the oil boom in the early 1970s, Mexico managed to rely more on oil export revenue. The government kept the same trade policies and created a big government sector. The government accumulated more foreign debt, and the appreciation of the Peso because of oil revenue led to a decrease in other exports. By 1981, oil accounted for about 80% of its total exports. With a growing government sector and an inefficient manufacturing sector, the country's finances would face tough challenges if oil prices were to drop. Unfortunately, oil prices dropped in 1982. The country simply could not pay back its debt.

To finance government spending, the Mexican government started to print money. Printing money led to triple-digit inflation rates in Mexico throughout most of the 1980s. Rising world interest rates also increased the indebtedness of Mexico. Mexico underwent political changes and economic reforms. Many firms were privatized, and inflation was kept under control. The US recognized that Mexico needed to increase exports to pay its debt. Mexico, the US, and Canada eventually signed NAFTA in 1994.

#### 2. Expected effects of NAFTA

From our HO model and Stolper-Samuelson theorem, we expect that low-wage earners in Canada and the US will lose, whereas high-wage earners (or capital owners) will gain. But because most of the elimination or reduction of trade barriers under NAFTA require a 15-year phase-out period, displaced workers are given time to retrain or relocate. From the Ricardian model, we expect wages to depend on productivity. Productivity levels in Canada and the US are much higher than the Mexican level, and hence we do not expect wages to equalize across the countries. Mexican productivity is lower because of lower education levels and training, as well as an unreliable legal system and poor infrastructure.

### 3. Actual effects of NAFTA: From a World Bank study<sup>1</sup>

A World Bank study focuses on the effects of NAFTA on Mexico. It estimates that without NAFTA, North American exports would have been 25% lower and Mexico's \$5,920 per capita income in 2002 would have been 4% lower. The study also argues that NAFTA is not enough. Mexico has to increase investment in education, innovation, infrastructure, as well as improve institutional quality. Institutional quality refers to accountability, regulatory effectiveness and control of corruption.

Some of the effects included in the report are:

- The wages of the workers with higher levels of education have risen more relative to those with less education. Hence, more investment in education is needed.
- Northern states have grown faster across the 1990s, reducing income gap; however, Southern States have grown slower due to low levels of education, infrastructure and quality of local institutions.
- Productivity growth has jumped, as the amount of time for adoption of foreign technologies was cut in half relative to the pre-agreement period.
- The biggest surprise to researchers was the farm sector's resilience in the face of changes that included NAFTA, the elimination of some price supports in the 1980s and declines in the agricultural relative prices. Domestic production and trade in agricultural goods across the late 1990s have increased, and the productivity of the irrigated lands has also increased.

Overall, the study concludes that Mexico's deficiencies in education and research and development limit the power of NAFTA in increasing the country's ability in reaching the level of technological progress of the US or even of countries such as Korea. The study concludes with some recommendations of reforms that would promote macroeconomic stability, improve institutions and investment climate, and build educational and innovation systems that foster technological and productivity growth. Recall that this recommendation echoes our simple Ricardian model, discussed in Chapter 2. It also recommends that the use of unfair trade policies, such as antidumping and countervailing measures, should not be allowed within free trade agreements.

Trade values in Mexico have increased dramatically over the period of NAFTA. **Figure 5.3** shows the values of Mexico's imports and exports from the years 1990 to 2010. Similar to Canada, around 75% of Mexico's trade is with the US. Mexico's share of US' total trade values have increased from around 4% in 1994 to about 12% in 2010. In 2010, Mexico was the US' third largest trading partner, after Canada (16.5% of total US trade) and China (14.3% of total US trade).



Figure 5.3 Export and Import Values of Mexico 1990-2010

Source: <http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E>, and author's calculations.

<sup>1</sup> The World Bank Group (2006) Latin America and the Caribbean" by Daniel Lederman, William F. Maloney and Luis Servén.

#### 4. Main effects of NAFTA: A Royal Bank of Canada's study<sup>2</sup>

A Royal Bank of Canada's study focuses on how NAFTA has affected Canada on its 10<sup>th</sup> year anniversary. It examines various myths or wrongful impressions that the public may have had about NAFTA. It also criticizes various areas that require more attention and improvement.

The myths dispelled include the following:

→ One of the concerns before CUSTA and NAFTA were signed was that global companies invested in Canada mainly because such companies wanted to avoid the tariffs, quotas, and VERs that Canada had in place. Companies would rather produce in Canada than to go through such trade barriers. If Canada were to remove such barriers, companies will leave and its economy would suffer. This report finds that the Canadian economy actually outperformed the US economy most of the time, and the inflow of foreign direct investment into Canada has increased from 20% of GDP in 1980 to 32% in 2005.

→ With freer trade, Canada's imports would balloon and its trade account would fall into deep deficits. This study finds that Canada's net exports have, on average, been a positive balance, which is consistent with our results from Chapter 1.

→ Fear of massive job losses has not materialized, having observed that the Canadian unemployment rates have been hovering at 6.5%, a 30-year low in 2005-2007. Moreover, skilled labour has been in shortage, forcing up our wages.

→ Another fear was foreign firms would acquire many Canadian firms in the sense the Canada is "for sale." The data show that Canadian firms have acquired more foreign equity than foreign firms have in Canada.

The main areas that require further attention include the following:

→ Relative to the US, Canadian firms still under-invest in machinery and technology that can increase their productivity. Capital stock expenditure as a percentage of GDP in Canada hovers around 25% to 30% of GDP, whereas the comparable US percentages were at around 40%.

→ Canada has the sixth highest marginal tax rates on capital compared to 36 industrialized countries. Such high taxes discourage investment.

→ About \$1 billion worth of trade cross the Canada-US border everyday, but the complications and delays in border clearance are hindering trade.

→ Canadian cities spend considerably less money on infrastructure than US cities, which makes it difficult to distribute goods and services to people in cities and surrounding areas.

→ Canada is short on skilled labour, and this situation will worsen with Canada's aging population and low birth rates. This study recommends raising immigration per year from its current 225,000 a year to 400,000 a year.

Another group of studies has focused on how more trade can increase our productivity in the manufacturing sector. Because Canada's domestic market is small, its limited demand does not enable the firms to increase their production scale and decrease costs. Recall from your introductory microeconomics studies, a typical firm has a U-shaped cost curve. For the firm to minimize its average total cost per unit, i.e., to be the most productively efficient, the firm must produce the quantity at the bottom of the U-shaped cost curve. However, if this quantity is too large in comparison to the Canadian domestic demand, the firm cannot produce this quantity. In other words, the firm cannot enjoy economies of scale. With a combined North American market, the larger market lets the firm produce at a higher quantity and drive down its costs. Studies have found that the gains in productivity in Canada's export sectors have been around a 5% to 7% improvement.<sup>3</sup>

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<sup>2</sup> "Canada's Free(r) Trade Lessons for the World," <http://www.rbc.com/economics>, November 2006.

<sup>3</sup> T. Pugel, *International Economics*, 13<sup>th</sup> ed. (New York: McGraw-Hill Publishing, 2007) p. 250.



## 5. Other effects of NAFTA

Fears that NAFTA would lead to massive job losses in the US have not materialized, and neither has there been a mass exodus of US firms destined for Mexico. In fact, only around 3.5% of US foreign direct investment goes to Mexico.<sup>4</sup>

Trade creation has mainly materialized for Mexico's trade with the US. Before NAFTA, only about 4% of US' trade was with Mexico. Mexico was exporting and importing around US\$70 billion, respectively, to and from the US in 1994. By 2010, Mexico's share has increased to around 12%, with exports and imports each reaching an average of US\$300 billion per year. Mexico and China are the US' second and third largest trading partners after Canada. The rankings of Mexico and China switch frequently, with each country's share at around 10% to 14%.<sup>5</sup> About 0.5% of Canada's trade was with Mexico back in 1994 and, by 2010, this percentage has increased to around 2.7%. Given these measured trade creation data, we can conclude that these countries have benefited from cheaper imports. However, other data also seem to point to the presence of trade diversion away from the rest of the world. For example, Mexico's textile exports to the US tripled over the period. US imports from Mexico increased at the expense of Asian and the Caribbean countries.<sup>6</sup>

## 6. Controversies of NAFTA

Besides the concerns with job reallocations arising from freer trade, NAFTA critics have also brought up other issues. Some argue that the use of antidumping and countervailing measures should not be allowed within NAFTA members. With the Canada-US softwood lumber dispute, many have also questioned the effectiveness of this free trade agreement. Border delays since September 2001 have also led to increase in production costs for cross-border trade. A Canadian company estimates that for each hour of border delay, it costs the firm \$1 million per year.<sup>7</sup>

Some critics have also raised the concern that given the world's growing population and shortage of water in the future, water could become the "liquid gold" in the future. Some critics worry that we may have to export our drinking water to the US because of NAFTA. Canada has about 20% of the world's fresh water supply. Under the current version of NAFTA, water is not considered a commodity and hence it is not included in the agreement.<sup>8</sup>

Another sticky issue with NAFTA is the national treatment of foreign firms under Chapter 11 of the agreement. Chapter 11 allows foreign firms to sue if they believe that the host government has treated them unfairly. For example, in 1993, US firm MetalClad<sup>9</sup> filed a lawsuit against a Mexican city. MetalClad bought a piece of land in a Mexican city from a Mexican firm, with the intension of turning it into a hazardous landfill. The Mexican federal government granted the company permits, but the municipal government did not respond. Mexico's Secretariat of the Environment, Natural Resources, and Fisheries (SEMARNAP) then granted MetalClad the permit to operate. MetalClad proceeded to operate but, in 1995, a court case determined that MetalClad had to cease production. MetalClad sued the Mexican federal government and won damages of around \$15 million. This case was widely criticized by anti-NAFTA and environmental groups as an example of how multinational companies hijacked NAFTA for their own profits.

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<sup>4</sup> [http://www.finfacts.ie/irelandbusinessnews/publish/article\\_10002361.shtml](http://www.finfacts.ie/irelandbusinessnews/publish/article_10002361.shtml)

<sup>5</sup> <http://www.2010census.biz/foreign-trade/top/index.html>

<sup>6</sup> M. Kreinin, *International Economics, A Policy Approach*, (Columbus, OH: South-Western, 2001) p. 140.

<sup>7</sup> B. MacKenna, "Dead End for Free Trade," *The Globe and Mail*, May 17, 2008.

<sup>8</sup> <http://www.cbc.ca/news/background/water>

<sup>9</sup> <http://www.courts.gov.bc.ca/jdb-txt/sc/01/06/2001bcsc0664.htm>



## Canada's Other Free Trade Agreements

Canada, as a small open economy, is quite active in pursuing independent free trade agreements with its trading partners. After Canada secured a free trade agreement with its largest trading partner, the US, Canada reached five other free trade agreements over the past decade. Canada also has eight more free trade agreements in negotiations. However, note that because 75% of Canada's trade is with the US, its trade values with these countries are minimal. The values of trade with these countries hover around a few billion dollars, out of the average C\$450 billion of exports or imports per year. **Table 5.1** shows the list of free trade agreements that Canada has reached or is trying to reach.

<b>Selected Canada's Free Trade Agreements</b>		
<b>Partner Country/Countries</b>	<b>Date Signed/In Force</b>	<b>Pending</b>
US and Mexico	January 1, 1994	
Chile	January 1, 1997	
Israel	January 1, 1997	
Costa Rica	November 1, 2002	
Jordan	June 29, 2009	
Norway, Switzerland, Iceland and Liechtenstein	July 1, 2009	
Peru	August 1, 2009	
Panama	May 14, 2010	
Honduras	August 12, 2011	
Columbia	August 15, 2011	
Korea		x
EU		x
Dominican Republic		x
Ukraine		x
Singapore		x
FTAA (28 Members)		x
India		x

Table 5.1 Canada's Free Trade Agreements, Signed and Pending

Source: <http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/index.aspx?lang=en#free>

## Case Study #2: The European Union (EU)

Under the Treaty of Rome in 1957, six European countries established a common market that later came to known as the European Community (EC)<sup>10</sup>. These countries included Belgium, France, Germany, Italy, Luxembourg, and the Netherlands. Common market meant that these countries established common external tariffs and free trade within the region. Free labour mobility within the region was also intended. These countries effectively created a customs union. Of course, as we studied in Chapter 4, CAP was also formed under the EC.

Over the years, more countries joined the EC. In 1987, the 12 members of the EC signed the Single Europe Act, which committed the members to achieve a common market. The Single Europe Act required the members to free labour and capital movements by 1992. On the macroeconomic front, in 1991, the members signed the Maastricht Treaty, which created a customs union. The European Union (EU) was named in 1993. Monetary and fiscal policies were to be coordinated across the countries, and eventually, the member countries would adopt a single currency, the Euro. This took place in 2002 when the Euro replaced most of the domestic currencies, and the European Central Bank took over from the countries' previous central banks to manage the Euro.

<sup>10</sup> M. Kreinin, *International Economics, A Policy Approach*, (Columbus, OH: South-Western, 2001) p. 136.

In 1995, the membership of the EU grew to 15 economies. By 2011, the EU has grown to include 27 economies, with almost 500 million people and a combined GDP of around US\$17 trillion. Seventeen of these economies have adopted the Euro, and most likely with more to join in the future. The EU is a much more deeply integrated union compared to NAFTA. Besides free trade in goods and services, the EU also does not allow the use of antidumping or countervailing measures against member countries. Also, border checkpoints have been eliminated for goods moving within the EU, and technical standards such as health, safety, and consumer protection are common across the countries. Government projects, or procurement contracts, are open for bidding by all firms in the countries. To increase labour mobility, university degrees and professional diplomas are recognized throughout the EU.

Studies have examined the trade creation and trade diversion effects as the EC expanded over the years. Based on actual trade data, the original six EC countries' share of exports amongst themselves was 30% in 1958. This share rose to 45% in 1968. Meanwhile, the share of other six countries (UK, Ireland, Portugal, Spain, Denmark, and Greece) fell from 9% to 7%. The share of the rest of the world of the six EC countries also fell from 61% to 48%.<sup>11</sup> Overall, trade creation effects exceeded trade diversion effects by a margin at 2% to 15%, a rather wide range.<sup>12</sup> Various studies have found that the gains due to freer domestic regulations introduced and completed by 1992 are around 2% to 5% of GDP.<sup>13</sup> As we learnt in Chapter 1, the creation of a customs union has indeed led to the fact the more than 70% of EU trade is within the EU. The sources of the gains from trade for the small European countries are quite similar to those of Canada as a result of NAFTA. Small economies cannot completely reap economies of scale due to their small markets, but by joining a larger integrated market, countries can lower production costs by focusing their production patterns in the line of comparative advantage.

### *Other Free Trade Agreements*

Numerous other free trade agreements should also warrant more of our attention. We will explore some of these free trade agreements in the "Forum" section of our course.

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<sup>11</sup> [http://courses.essex.ac.uk/ec/ec246/ec246\\_04.ppt](http://courses.essex.ac.uk/ec/ec246/ec246_04.ppt).

<sup>12</sup> R. Carbaugh, *International Economics*, 11<sup>th</sup> ed. (Columbus, OH: Thomson Publishing, 2007) p. 272.

<sup>13</sup> D. Salvatore, *International Economics*, 9<sup>th</sup> ed. (Hoboken, NJ: Wiley Publishing, 2007) p. 350.