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CHAPTER 8
Preferential Trade Agreements

I once attended a talk by a Canadian trade negotiator who made the following potent statement: "When multilateralism falters, regionalism picks up the pace." His use of the term "multilateralism" referred to the GATT/WTO system described in Chapter 7 and including WTO-sponsored multilateral trade negotiations. His use of the term "regionalism" referred informally to the possibility of pursuing what is formally known as **preferential trade agreements** (PTAs). Recall that one of the founding principles of the GATT/WTO system is **nondiscrimination**, and that nondiscrimination, in turn, involves the **most favored nation** (MFN) and **national treatment** (NT) sub-principles. Under MFN, each WTO member must grant to each other member treatment as favorable as they extend to any other member country. PTAs are a *violation of the nondiscrimination principle* in which one member of a (PTA) discriminates in its trade policies in favor of another member of the PTA and against nonmembers.[1] This discrimination has been allowed by the GATT/WTO under certain circumstances. These circumstances include the well-known cases of **free trade areas** (FTAs), **customs unions** (CUs), and interim agreements leading to a FTA or CU "within a reasonable length of time."[2]

Before we begin, we need to clarify an issue of terminology. Originally, FTAs and CUs were collectively known as "regional trade agreements" (RTAs), and this is the term commonly employed by the World Trade Organization (WTO). However, since the 1990s, an increasing number of FTAs have been between or among countries that are *not geographically contiguous* such as the Canada-Chile and Japan-Mexico FTAs. Consequently, a number of leading economists and trade lawyers have recommended that the RTA nomenclature be replaced with that of preferential trade agreements (PTAs).[3] In

[1] The history of PTAs is often traced beck to the establishment of the German Customs Union (Zollverein) in 1834

[2] All quotations without citations are from GATT Secretariat (1994).

[3] For example, Matsushita, Schoenbaum and Mavroidis (2006) state: "The term 'regional integration', which is often used in the literature, is probably misleading: in essence, what the term aims to capture are preferential schemes that deviate from the obligation not to discriminate. Not all such schemes are regional, in the sense of geographical proximity. One third of the free

the spirit of greater accuracy, we will use this term here, but it is likely that you will encounter both terms and their acronyms.

As suggested by the comment of the trade minister above, "regionalism" (or more accurately preferentialism) and multilateralism represent two alternative trade policy options available to the countries of the world. When the larger countries of the world lose commitment to the multilateralism option, multilateralism "falters." However, this is when countries often turn their attention to the preferential option, and regionalism "picks up the pace." Indeed, nearly every member of the WTO is also a member of at least one PTA, and over 260 PTAs in force at the time of this writing.[4] PTAs are therefore a central feature of the world trading system.

This chapter will introduce you to various types of PTAs and their economic effects. These effects are analyzed in international economics in terms of the concepts of **trade creation** and **trade diversion**. We then consider some examples of PTAs, namely the European Union, the North American Free Trade Area, Mercosur and the Free Trade Area of the Americas, and the ASEAN Free Trade Area. Finally, we consider in more detail the relationship of "regionalism" to multilateralism. With regard to the seven analytical elements listed in Chapter 1, we are going to focus in this chapter on *countries* and *sectors*. Brief mention will be made of *tasks* when we consider the issue of **rules of origin**.

Preferential Trade Agreements

Under the WTO and as listed in Table 8.1, there are four ways in which a PTA can occur. Under Article XXIV of the General Agreement on Tariffs and Trade (GATT 94) covering trade in goods, a PTA can be notified as either a free trade area (FTA) or as a customs unions (CU). As noted in Table 8.2, both of these PTA types involve the member countries *eliminating* trade restrictions among themselves. The difference between the FTA and CU options is that the latter involves member countries establishing a *common external tariff* or CET. Article XXIV of the GATT requires that WTO members who wish to form FTAs or CUs must meet certain requirements. First, trade barriers against non-members cannot be "higher or more restrictive than" those in existence prior to the FTA or CU. Second, the FTA or CU must be formed "within a reasonable length of time." Third, the FTA or CU must eliminate trade barriers on "substantially all the trade" among the members. As can be seen in Table 8.1, the number of FTAs notified to the WTO greatly exceeds the number of CUs.

A third way in which a PTA can occur under the WTO is known as the "enabling clause." This 1979 decision (currently part of GATT 1994) allows PTAs in goods trade among developing countries. According to this decision, the pursuit of a PTA within the enabling clause is for the "mutual reduction or elimination" of tariffs and non-tariff measures. There is thus less emphasis on eliminating trade restrictions than in the case of

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trade areas (FTAs) currently under investigation are among countries that are not in geographical proximity" (pp. 548-549).

[4] This 260 figure is the official WTO figure. As we explain below, there is actually some double counting involved in the way the WTO records PTAs.

FTAs and CUs. As can be seen in Table 8.1, there are more enabling clause PTAs than CUs, but significantly fewer than FTAs.

The fourth and final way in which a PTA can occur under the WTO is under Article V of the General Agreement on Trade in Services (GATS). FTAs or CUs under the GATS must involve "substantial sectoral coverage," language that differs from trade in goods. Importantly, most PTAs (other than enabling clause PTAs) notified to the WTO since its inception in 1995 have been under both GATT Article XXIV and GATS Article V. Therefore, there is *double-counting* in the WTO PTA system that is reflected in Table 8.1.[5]

Table 8.1 Types of Preferential Trade Agreements

Type of PTA	Description	Number in Force in 2009
GATT Article XXIV (FTA)	An agreement on the part of a set of countries to *eliminate* trade restrictions among themselves.	146
GATT Article XXIV (CU)	An agreement on the part of a set of countries to eliminate trade restrictions among themselves and to adopt a *common external tariff.*	13
Enabling Clause		28
GATS Article V		73
		Grand total: 260

Source: World Trade Organization. Note: Consult the WTO website for current information.

Whether notified under trade in goods or both trade in goods and services, oversight of PTAs by the WTO is difficult. This is because the phrases "higher or more restrictive than," "within a reasonable length of time," "substantially all trade" and "substantial sectoral coverage" are simply too vague. As part of the Uruguay Round of trade negotiations leading up to the Marrakesh Agreement and the establishment of the WTO, there was an agreed-upon "understanding" on PTAs. This understanding specified that the relevant measure to assess restrictiveness against non-members is a weighted average of tariff rates and that the length of time allowable for the elimination of trade barriers within FTA and CUs is to be no more than ten years.

[5] In the words of the WTO, its statistics on PTAs "are based on notification requirements rather than on physical numbers" of PTAs. Thus, for any PTA including both goods and services, the WTO counts two notifications (one for goods and the other services) rather than one.

Even with this understanding, however, there is room for differing interpretations.[6] Despite the institutional structure present in the WTO meant to govern PTAs, the unfortunate fact is that there has never been any serious evaluation or enforcement of PTAs under either the GATT or the WTO. As noted by Matsushita, Schoenbaum and Mavroidis (2006), most PTAs are of "dubious WTO-consistency." However, no WTO member has the incentive to challenge PTAs through WTO dispute settlement because nearly all important WTO members are themselves members of at least one PTA. This "cooperative equilibrium" has proven to be quite durable. Some small steps towards increased transparency have been taken by the WTO's Committee on Regional Trade Agreements (CRTA) in the form of an improved database of FTAs and CUs (see Further Reading and Web Resources below), but transparency is not enforcement.[7]

Table 8.2 Steps to Regional Integration

Type	Description
Free trade area	An agreement on the part of a set of countries to *eliminate trade restrictions among themselves*.
Customs union	An agreement on the part of a set of countries to eliminate trade restrictions among themselves and to *adopt a common external tariff*.
Common market	An agreement on the part of a set of countries to eliminate trade restrictions among themselves, to adopt a common external tariff, and to allow the *free movement of labor and physical capital* among member countries.
Monetary union	A common market that adopts a *common currency* and adopts a *common monetary policy*.
Economic union	A monetary union that adopts a process of *domestic policy harmonization* in areas such as tax and spending policies and domestic regulation.

Although many PTAs are not regional, a number of PTAs are true attempts to build regional integration among contiguous countries. When this is the case, PTAs can be seen as steps along a continuum of increased regional integration. This continuum is described in Table 8.2. Here we see that FTAs and CUs are the first two steps towards a common market in which the regional membership has allowed for the free flow of both labor and physical capital. A common market can proceed further to a monetary union with a common currency and common monetary policy. Finally, an economic union is

[6] See Serra et al. (1997).

[7] Matsushita, Schoenbaum and Mavroidis (2006) go on to say: "The ultimate conclusion from our analysis is that PTAs, in their overwhelming majority, have not even bee properly evaluated by the WTO. As a result, there is an abundance of PTAs, the consistency of which with the WTO rules is simply put, unknown" (p. 554).

characterized by members attempting to harmonize domestic policies concerning the areas of taxation and spending, domestic regulation, competition and other areas of interest. The most notable case of an economic union is the European Union discussed below.

One issue that inevitably arises in the design of PTAs in the form of FTAs is how to determine whether a product is from a partner country. In an FTA, a product can be imported into a low-tariff member and then resold in a high-tariff member, a process known as *tariff rate arbitrage*.[8] To protect against tariff rate arbitrage, FTA members usually establish **rules of origin** or ROOs.[9] As outlined by Krishna (2009), ROOs can be defined using four criteria. The first of these is the amount of *domestic content* of the good, measured either in terms of value added or in direct, physical terms. The second is in terms of a *change in tariff heading* (CTH) where the good must move from one tariff category to another during a production process in a FTA member country. The third is in terms of *specified processes* (or tasks) which outline the actual production processes that must take place within the FTA.[10] The fourth approach is in terms of *substantial transformation*, a loosely defined term that can vary from one instance to another. In many respects, FTAs are defined by their ROOs, and an understanding of them is therefore a key part of understanding any particular FTA. Further, empirical evidence suggests that they have significant impacts.[11] The case of automobile ROOs in the North American Free Trade Agreement (NAFTA) is considered in the accompanying box.

NAFTA Automobile ROOs

Under the North American Free Trade Agreement (NAFTA), exporters must fill out a NAFTA Certificate of Origin (CO) based on NAFTA ROOs. In general, the origination of a product is defined in terms of *substantial transformation*, and substantial transformation is, in turn defined in terms of a *change in tariff heading* (CTH). This requirement can be relaxed, however, under a *de minimis rule* if non-originating materials make up less than 7 percent of the total value of the product. There is also the alternative of demonstrating sufficiently high *regional value content* (RVC). RVC, in turn, can be defined in two ways: in terms of transactions value or in terms of net cost. Even this superficial view of the NAFTA ROOs indicates that they are not a model of simplicity.

Automobiles have special provisions for a NAFTA CO. Here, the RVC must be calculated using the net cost method. The NAFTA automobile RVC calculation includes

[8] As noted by Tarr (2009), CUs do not need rules of origin because goods from outside the CU enter any CU member under the same tariff regime. This is one advantage of a CU over a FTA.
[9] In terms of global governance, ROOs are covered under the International Convention on the Simplification and Harmonization of Customs Procedures (the Kyoto Convention, 1974, revised in 1998).
[10] Clearly, this can be very close to the CTH approach. Krishna (2009) notes that "The difference between this and the CTH criterion is only that the latter is based on some commonly used description such as the tariff code, whereas the specified process definition is defined in terms of production processes specific to each industry" (p. 980).
[11] See, for example, Anson et al. (2005) for the case of NAFTA.

the *value of non-originating materials* (VNM), and this is, in turn, calculated using one of two sets of tracing rules for materials used in the manufacturing process, one for "heavy-duty" goods (engines and transmissions) and another for "light-duty" goods. Heavy-duty goods are required to include the total value of *all* non-originating materials in the VNM. Light-duty goods, on the other hand, only need to include the value of non-originating materials specified on a light-duty tracing list.

Preparation of NAFTA CO is complicated in general, which is why Friedman (2003) advises: "It is imperative that producers and exporters asked to complete a NAFTA CO understand and properly apply the NAFTA Rules of Origin before certifying merchandise or relying on a CO from a supplier…. Consequently, advice concerning a specific circumstance should come from a qualified customs attorney." The exporter or producer of an automotive product needs to be particularly concerned that they have adequately addressed the complicated ROOs governing this kind of trade in North America.

Sources: Trade Information Center, U.S. Department of Commerce and Friedman (2003).

The Economic Effects of Regional Trade Agreements

What are the economic effects of PTAs? Jacob Viner (1950) first addressed this question in a famous book entitled *The Customs Union Issue*. In this book, Viner distinguished between the concepts of **trade creation** and **trade diversion** in PTAs. Trade creation occurs when the formation of a PTA leads to a switching of imports from a high-cost source to a low-cost source. Trade diversion occurs when imports switch from a low-cost source to a high-cost source. As we will soon see, trade creation tends to improve welfare, whereas trade diversion tends to worsen welfare. Let's summarize trade creation and trade diversion in a box:

Trade creation: switching of imports from a high-cost source to a low-cost source. Improves welfare.

Trade diversion: switching of imports from a low-cost source to a high cost source. Tends to worsen welfare.

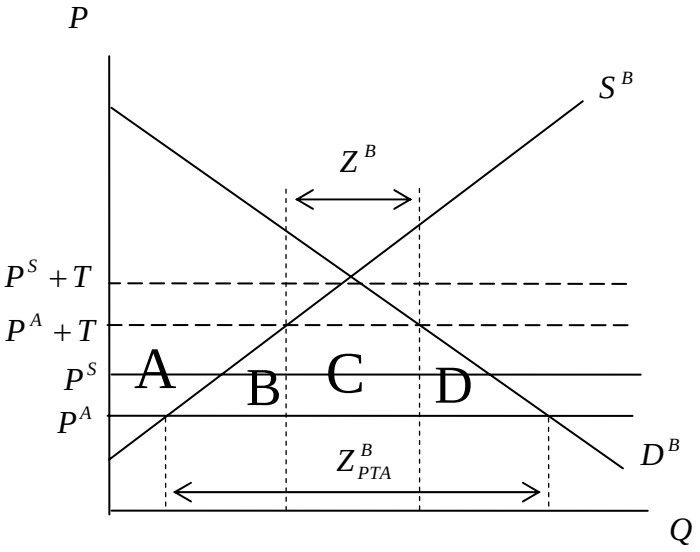
We are going to illustrate the concepts of trade creation and trade diversion using the absolute advantage model we developed in Chapter 2. We are going to consider two countries who are members of a PTA, Brazil (B) and Argentina (A). We are also going to refer to a third country El Salvador (S) which is an excluded nonmember. A PTA that involves *trade creation* is presented in Figure 8.1. In this figure, we take the perspective of Brazil. S^B is Brazil's supply curve of some good, and D^B is Brazil's demand curve for the same good. Brazil can import the good from Argentina at price P^A and from El Salvador at price P^S. The crucial point here is that Argentina is the lower-cost producer in comparison to El Salvador.

Before the PTA, Brazil has in place a specific (per unit) tariff of T on imports from *both* Argentina and El Salvador. Since $P^A + T < P^S + T$, Brazil imports the good from Argentina, and the initial import level is Z^B. Once Brazil joins the PTA with Argentina, the tariff is removed on imports from Argentina. Clearly, $P^A < P^S + T$, so the good continues to be imported from Argentina. The imports, however, expand from Z^B to Z^B_{PTA} as the price falls from $P^A + T$ to P^A.

As a result of the PTA with Argentina, consumer surplus in Brazil increases in Figure 8.1 by area A + B + C + D. Producer surplus falls by A, and government tariff revenue falls by C.[12] The net increase in welfare due to trade creation is B + D. Let's summarize this:

Consumer surplus:	A+B+C+D
Producer surplus:	-A
Government revenue:	-C
Net welfare:	B + D

Figure 8.1. A Trade-Creating PTA between Brazil and Argentina



[12] Recall that the concepts of consumer and producer surplus were discussed in the appendix to Chapter 2. Please refer to that appendix if you need to.

The switch in "imports" in the trade-creating PTA described in Figure 8.1 is from a high-cost source, namely Brazil itself, to a low-cost source, Argentina. This trade-creating switch is what generates the increase in welfare in Brazil.

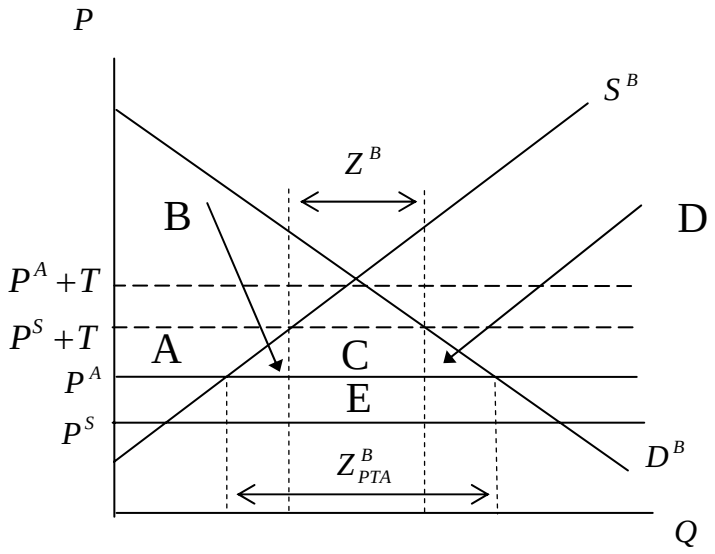
A PTA that involves *trade diversion* is presented in Figure 8.2. In this figure, and in contrast to Figure 8.1, El Salvador is now the lower-cost producer in comparison to Argentina. That is, $P^S < P^A$. Since $P^S + T < P^A + T$, before the PTA, Brazil imports the good from El Salvador, and the initial import level is Z^B. Once Brazil joins a PTA with Argentina, however, $P^A < P^S + T$, so Brazil switches to Argentina as an import supplier. Imports expand to Z^B_{PTA} as the domestic price falls from $P^S + T$ to P^A.

As a result of the PTA with Argentina, consumer surplus in Brazil increases by area A + B + C + D in Figure 8.2. Producer surplus falls by A, and government revenue falls by C + E. The net increase in welfare is therefore B + D - E.

Let's summarize this:

Consumer surplus:	A+B+C+D
Producer surplus:	-A
Government revenue:	-C - E
Net welfare:	B + D - E

Figure 8.2. A Trade-Diverting, Regional Trade Agreement between Brazil and Argentina



Whether the net welfare effect is a positive or negative value depends on the relative sizes of B + D and E. Area B + D represents the trade-creating effects of switching "imports" from the higher-cost source of Brazil to the lower-cost source of Argentina. However, area E represents the trade-diverting effects of switching imports from the lower-cost source of El Salvador to the higher-cost source of Argentina. If the trade-diverting effects outweigh the trade-creating effects (if E > B + D), then the PTA will *reduce* welfare in Brazil.

What should you take from the preceding discussion of trade creation and trade diversion? Let's summarize it in a box:

> PTAs can be either welfare-improving or welfare-worsening. Whether an PTA is welfare-improving or welfare-worsening is something that must be assessed on a case-by-case basis, based on evidence on the relative strengths of trade creation and trade diversion.

As a consequence of the above, assessments of PTAs are often made using more sophisticated and numerical versions of Figures 8.1 and 8.2. That is, trade economists are often called upon to mathematically model the effects of PTAs.[13] If you are involved with the assessment of PTAs in any way, you might need to interpret the results of such modeling exercises. Each of the chapters in Part I of this book concerning our first window on the world economy, international trade, have contributed to your ability to do so. This issue is examined in more detail in the Appendix to this chapter.

The European Union

The European Union (EU) is the current name for a set of agreements among 27 (at the time of this writing) European countries in the realms of economics, foreign and security policies, and justice and home affairs. The evolution of the EU is summarized in Table 8.3. Its roots extend back to the Marshall Plan under which the United States aided in the reconstruction of Europe after World War II and promoted the liberalization of trade and payments among the European countries in its zone of influence. These liberalization processes were facilitated by the Organization for European Economic Cooperation and the European Payments Union.[14] In 1951, the Treaty of Paris was signed, and this led to the formation of the European Coal and Steel Community (ECSC) among Belgium, France, Germany, Italy, Luxembourg, and the Netherlands, countries that became known as The Six. The purpose of the ECSC was to liberalize trade and promote competition in the steel and coal sectors of the Western European economy.

In 1957, the Treaty of Rome was signed. This led to the formation of the European Economic Community (EEC) in 1958. The ultimate goal of the EEC was the creation of a

[13] For the important case of the North American Free Trade Area, see Francois and Shiells (1997). This was one of the first instances where mathematical models played an important role in the actual policy deliberations surrounding a proposed PTA.

[14] The Organization for European Economic Cooperation later became the Paris-based Organization for Economic Cooperation and Development (OECD).

common market. Initially, however, the EEC was a movement towards a FTA in a decade-long transitional period. The EEC took the step to a CU in 1968 with the introduction of a common external tariff. Between 1973 and 1986, its membership increased from six to twelve countries. The year 1992 marked the *official* completion of a common market in which barriers to labor and physical capital were to be removed (the *actual* completion of a common market will always be a work in progress). With the signing of the Maastricht Treaty in 1992, the EEC was joined by initiatives in the areas of foreign and security policy and justice and home affairs under what became known as the European Union. Austria, Finland, and Sweden joined the EU in 1994 bringing the membership to 15. An ambitious enlargement in 2004 added ten more countries as EU members, and an enlargement in 2007 brought the total membership to 27.[15]

In recent years, the EU has ventured even beyond a common market to a monetary union with the launch of the euro in January 2002. We take up these important developments in Chapter 19. A current preoccupation of the EU is the issue of a constitution or constitutional treaty. At the time of this writing, the Lisbon Treaty is the active constitutional document, and it is awaiting complete ratification by all 27 EU members with only Poland and the Czech Republic remaining.

In an early round of research, some economists (e.g., Hufbauer, 1990, Lawrence, 1991, and Sapir, 1992) argue that trade creation dominated trade diversion in the EC and EU. Winters (1993) expressed a much more cautionary view, noting that, despite the common external tariff of the European Union CU, nontariff barriers (e.g. quotas) increased in sectors such as motor vehicles, VCRs, and footwear. He also noted that EU subsidies increased in sectors such as aircraft, steel, shipbuilding, and agriculture. An intermediate view was offered by Tsoukalis (1997) who pointed to overall trade creation in manufactured goods and overall trade diversion in agricultural goods. The latter has been largely the result of the Common Agricultural Policy (CAP), which has protected EEC/EU agriculture from foreign competition and has involved the heavy use of export subsidies. Protection levels for EU agriculture under the CAP remain high, but the WTO Agreement on Agriculture, discussed in Chapter 7, has introduced a modicum of discipline.[16]

[15] At the time of this writing, candidate countries included Croatia, Macedonia and Turkey.
[16] The EU CAP has also had implications for progress in the Doha Round. See Reinert (2007).

Table 8.3. The Evolution of the European Union

Year	Initiative	Treaty	Members Added
1951	European Coal and Steel Community	Treaty of Paris	Belgium France Germany Italy Luxembourg Netherlands
1958	European Economic Community	Treaty of Rome	
1973	Enlargement		Denmark Ireland United Kingdom
1981	Enlargement		Greece
1986	Enlargement		Portugal Spain
1992	European Union	Treaty on European Union (TEU) or the Maastricht Treaty	
1995	Enlargement		Austria Finland Sweden
1999	European Monetary Union		United Kingdom, Sweden, and Denmark not included
2002	Common EMU currency: the euro		United Kingdom, Sweden, and Denmark not included
2004	Enlargement		Cyprus Czech Republic Estonia Hungary Latvia Lithuania Malta Poland Slovakia Slovenia
2007	Enlargement		Bulgaria Romania
2007	EU Constitution	Lisbon Treaty	

Sources: Dinan (2005) and europa.eu. Note: at the time of this writing, not all EU members have ratified the Lisbon Treaty.

More recent research has been provided by De Santis and Vicarelli (2007) and Gil, Llorca and Martíniz-Serrano (2008). De Santis and Vicarelli (2007) examine the EU's trade patterns between 1960 and 2000 and account for its evolving network of PTAs with non-members. These authors find significant trade creation among EU members but only limited trade diversion due to the expanding set of external PTAs. Gil, Llorca and Martíniz-Serrano (2008) focused on trade creation (but not trade diversion). These researchers carefully examined the evolution of the EU's trading relationships and trade flows over the years 1950-2004, accounting for its gradual expansion of members. They conclude that each successive enlargement has increased trade and that the deepening of the regional integration scheme from a FTA to CU to common market and monetary union also has a positive effect on trade. Because this study does not account for trade diversion, it is not a welfare analysis as in Figures 8.1 and 8.2 but is significant nonetheless.

The North American Free Trade Area

In 1989, a FTA between Canada and the United States came into effect. Sometime thereafter, former Mexican President Carlos Salinas de Gortari approached a number of countries in Western Europe with the intent of convincing them to enter into trade liberalization with Mexico. On a trip to Europe, he found these countries to be distracted with the movement to the European Union described above. As the story is now told, on a return flight from Europe, Salinas decided to pursue a FTA with the United States. In 1990, former United States President George Bush and Salinas announced their intention to begin negotiating a FTA. In 1991, however, they were joined by Canada to begin negotiations for a **North American Free Trade Area** (NAFTA) involving all three countries. The agreement was signed in 1992 and took effect in 1994.[17] It was fully phased in by 2009.

The NAFTA agreement was ambitious. Along with trade in goods, it addressed financial services, transportation, telecommunications, foreign direct investment, intellectual property rights, government procurement, and dispute settlement. With regard to trade in goods, NAFTA liberalized trade in the highly protected automobile, textile, and clothing markets. However, it employed restrictive ROOs in these sectors as well. In agriculture, NAFTA phased out tariffs over a ten-year period and transformed quotas into tariff-rate quotas (see Chapter 6 Appendix), which were phased out over ten- to fifteen-year periods. Foreign direct investment was completely liberalized.[18] NAFTA also provided significant intellectual property protection in a manner similar to the TRIPs Agreement discussed in Chapter 7.

During the discussions and political deliberations surrounding the NAFTA negotiations, issues of trade and the environment and trade and labor rose quickly to the surface. Mathematical models of these issues are discussed in the accompanying box.

[17] Since then, Mexico and the EU have signed a FTA.

[18] Despite the fact that NAFTA involves the removal of barriers to FDI, it is not a common market since it does not allow for the free movement of *labor* within North America.

Institutionally, however, NAFTA was innovative in that it responded to these concerns with the North American Agreement on Environmental Cooperation (NAAEC) and the North American Agreement on Labor Cooperation (NAALC). These are sometimes referred to as the NAFTA "side agreements." The NAAEC established the Border Environmental Cooperation Commission, the North American Development Bank and the Commission for Environmental Cooperation, while the NAALC established the Commission for Labor Cooperation.

What does research on NAFTA tell us about its effects? Evidence suggests that FDI into Mexico did indeed respond positively to the presence of NAFTA, although there is a constitutional ban against FDI in Mexico's energy sector.[19] Despite arguments to the contrary, NAFTA's impacts on job losses in the United States have been small relative to overall employment trends in that country.[20] The NAFTA ROOs substantially limit market access for Mexico in all but textiles and clothing,[21] and the NAFTA agreement has had detrimental impacts on Mexico's corn producers.[22] Despite the ROOs, however, automobile trade (both parts and finished automobiles) within North America has expanded rapidly.

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NAFTA, Wages, and Industrial Pollution

The issues of trade and wages in general and of North-South trade and wages in particular have recently received a great deal of attention by economists and public policy analysts. Most of the discussion has taken place in terms of the Heckscher-Ohlin model of international trade and its associated Stolper-Samuelson theorem. Reinert and Roland-Holst (1998) set out to address this issue in the context of the North American Free Trade Area (NAFTA). In the debate over NAFTA, the trade and wages issue loomed large, but little empirical evidence was available. Reinert and Roland-Holst attempted to offer some evidence.

These researchers constructed a 26-sector model of the North American economy, including Canada, the United States, and Mexico. They simulated the effects of expanding trade that would take place under NAFTA on five labor categories: professional and managerial; sales and clerical; agricultural; craft; and operators and laborers. In a number of different simulations under different labor supply assumptions, they found that real wages in the United States *increased* for all five types of workers. There was no downward pressure on wages in the United States, even for blue collar workers.

As suggested by Ruffin (1999) in another study, and as discussed in Chapter 4, these results reflect the presence of a great deal of *intra*-industry trade between the

[19] See Ramirez (2006).
[20] See Hufbauer and Schott (2005).
[21] See Anson et al. (2005).
[22] See Ramirez (2003). Martin (2005) noted that "Mexico had about 3 million corn farmers in the mid-1990s, but the 75,000 corn farmers in Iowa produced twice as much corn as Mexico at half the price" (p. 452). This is partly due to the heavy subsidization of corn in the United States.

United States and Mexico that their model captures. In most sectors, trade expands in *both* directions between these two countries, something that is not possible in the strict Heckscher-Ohlin framework of *inter*-industry trade.

In 2000, the North American Commission for Environmental Cooperation (CEC) sponsored the First North American Symposium on Understanding the Linkages between Trade and Environment. In one contribution to this symposium, Reinert and Roland-Holst (2001) set out to assess the impacts of trade liberalization under NAFTA on industrial pollution in Canada, the United States, and Mexico. They used the same model of the North American economy described above to assess the impact of NAFTA on wages, focusing on the manufacturing sectors in the model and utilizing pollutant data from the Industrial Pollution Projection System of the World Bank.

Reinert and Roland-Holst found that the most serious environmental consequences of NAFTA occur in the base metals sector. In terms of magnitude, the greatest impacts are in the United States and Canada, and this is the case for most of the pollutants considered. As alleged in the debate over NAFTA and the environment mentioned above, the Mexican petroleum sector is a significant source of industrial pollution, particularly in the case of air pollution. For specific pollutants in specific countries, the transportation equipment sector and the chemicals sector are also important sources of industrial pollution.

Modeling results such as the above alert policy makers to likely labor-market and pollution effects of PTAs and can be repeated for any new PTAs that come under negotiation.

Source: Reinert and Roland-Holst (1998), Reinert and Roland-Holst (2001), and Ruffin (1999)

Truck transportation has been a sticking point in NAFTA. Full access to the U.S. trucking market was to have been granted by 2000, and a NAFTA arbitration panel ruled in Mexico's favor on this in 2001. Even the U.S. Supreme Court weighed in on the issue in favor of Mexico in 2004. But the U.S. Congress removed funding for even a successful pilot project in 2009, and Mexico consequently imposed retaliatory tariffs. Another sticking point has been migration. Despite hopes that NAFTA would decrease migration from Mexico to the United States, this has not been the case.[23] Hopes for development and environmental improvements along the U.S.-Mexican border have also been disappointed due to the lack of funding for the North American Development Bank.

[23] See Martin (2005). Of the approximately 8 million Mexican workers in the United States, approximately 6 million are illegal. We take up migration issues in Chapter 12.

Mercosur and the FTAA

A PTA among Argentina, Brazil, Paraguay, and Uruguay was launched in 1991 with the Treaty of Asunción, named after the capital city of Paraguay. This PTA, the Common Market of the South, or Mercosur, took on Chile and Bolivia as associate members in 1996 and 1997, respectively. Peru, Colombia and Ecuador became associate members is 2003-2004. Venezuela signed a membership agreement in 2006 but, at the time of this writing, finalization of this status is awaiting ratification in the Brazilian and Paraguayan parliaments. The name Mercosur is somewhat misleading, because it suggests that the PTA among the four core members is an actual common market with the free movement of labor and physical capital (see Table 8.2). This is not the case, however. Mercosur entered into force in 1995 as a FTA. A customs union was to be finalized by 2006. Free movement of labor and physical capital is a long way off.[24]

The formulation of Mercosur has had a positive impact on the amount of trade among its four core members, and the technology profile of traded goods is higher for trade within Mercour than for trade between Mercosur and the rest of the world. That said, however, intra-Mercosur trade is low by world standards. Mercosur has also been troubled by two asymmetries. First, Argentina and Brazil dwarf Paraguay and Uruguay in economic size. Consequently, the smaller members find themselves somewhat sidelined from the core relationship between Argentina and Brazil. Second, for a number of years, there was a fundamental macroeconomic asymmetry between Argentina and Brazil. After its crisis of 1998, the Brazilian real became a freely floating currency (see Chapter 16), while until its crisis in 2002, the Argentine peso was rigidly pegged to the US dollar under a currency board arrangement (see Chapter 18). These asymmetries caused a great deal of friction between Argentina and Brazil and complicated the functioning of Mercosur.[25]

The institutions of Mercosur have been described by a number of researchers as being “wide” but not “deep.” These include a Council providing political leadership, an executive Common Market Group, a Commerce Commission, a Joint Parliamentary Commission, and a Secretariat in Montevideo, Uruguay. There have also been allegations that the PTA has become “politicized.” This is largely due to the 2006 Córdoba Meeting in which Venezuelan president Hugo Chavez played a significant role, denouncing the United States and “neoliberalism.” Despite all of these difficulties and limitations,

[24] Politically, Mercosur is indeed an achievement. Its two main members, Brazil and Argentina were estranged rivals as recently as the mid 1980s. Consider Reid (2002): “Until 1985, apart from a couple of border encounters, only three Brazilian presidents had ever visited Argentina, and only two Argentine rulers had made the trip the other way. The two countries’ railway networks had been built to different gauges. As recently as the 1970s, Argentina and Brazil were engaged in a nuclear arms race” (p. 4).

[25] More recently, a conflict began in 2006 between Argentina and Uruguay over the issue of Uruguay’s intent to site paper mills on the Uruguay River between the two countries. Despite adjudication of this issue by the International Court of Justice in the Hague in 2007, this issue remains unresolved.

however, the achievements of Mercosur have been significant, and it could continue to play an important role in Latin America.

At the end of 1994, the governments of 34 countries in the Western Hemisphere met at the First Summit of the Americas. They agreed to pursue a Free Trade Area of the Americas (FTAA) with the goal of concluding such an agreement by January 2005. Negotiations concerning the FTAA were launched at the Second Summit of the Americas in 1998. Nine negotiating groups were formed in the following areas: 1. Market Access, 2. Investment, 3. Services, 4. Government Procurement, 5. Dispute Settlement, 6. Agriculture, 7. Intellectual Property Rights, 8. Subsidies, Antidumping, and Countervailing Duties, and 9. Competition Policy. Draft agreements were concluded in 2001 and 2002. In each of these areas, draft agreements were completed. If it had been successful, the FTAA would have represented the largest free trade area in the world in terms of both market size and territory.

Beginning in 2002, the United States began to implement increased protection of its steel sector and increased subsidies for its agricultural sector by (according to most measures) 80 percent. Within Latin America, these measures were seen as unfortunate and called into question the spirit of the FTAA process. The Brazilian government was particularly concerned about US steel protection. Having at one time attempted to move up the FTAA negotiations deadline to the end of 2003, the United States eventually agreed to keep the original 2005 deadline. This deadline, though, was missed. The 2004 Summit of the Americas, taking place in Monterrey, Mexico, proved unable to solve remaining issues. The most significant disagreement was between the United States and Brazil. The United States had insisted that issues related to agricultural subsidies and anti-dumping measures be excluded from the FTAA negotiations, to be pursed only in the ongoing *multilateral* trade negotiations taking place as part of the Doha Round. Brazil objected to these stipulations, as well as to the insistence of the United States that the FTAA negotiations include issues of government procurement and intellectual property.[26] In the end, what merged from the 2004 Summit of the Americas was a far less ambitious "FTAA lite," with offers by the United States to pursue deeper agreements on a plurilateral basis with interested subsets of countries in the Americas.

The Fifth Summit of the Americas took place in 2005 in Mar del Plata Argentina. It was hosted by President Néstor Kirchner who formed an alliance with Venezuela's Hugo Chavez. At this Summit, Mercosur members plus Venezuela blocked any further FTAA progress. In its stead, Chavez pushed the Bolivarian Alternative for the Americas (ALBA). With only Venezuela, Cuba, Bolivia and Nicaragua as members, however, this falls far short of regional integration in the Americas, which remains an unfulfilled goal.

[26] Rivas-Campo and Juk Benke (2003) note that: "Given the US position… to encourage global instead of regional liberalization in agriculture, Latin American countries have underlined the minimal gains that an FTAA without agricultural liberalization would signify for developing and agriculture-dependent countries" (p. 669) and "As long as the US remains reluctant to eliminate agricultural subsidies, Latin American countries may also be unwilling to favor substantial agricultural liberalization in the region" (p. 670).

ASEAN and AFTA

As noted by Feridhanusetyawan (2005), PTAs have been proliferating in the Asia-Pacific region since the late 1990s. At the center of this proliferation is the Association of Southeast Asian Nations or ASEAN. ASEAN was formed in 1967 and currently includes 10 countries: Brunei, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Since the late 1970s, it has turned its attention from political cooperation to economic integration.[27] In 1992, the first six members of ASEAN (ASEAN-6) formed the ASEAN Free Trade Area (AFTA), but this PTA now includes all ten members, although the ASEAN-4 (Cambodia, Lao PDR, Myanmar and Vietnam) are not expected to be fully integrated until 2012.

The AFTA is an attempt to reduce intra-PTA tariffs and non-tariff measures. This is done using what AFTA terms the Common Effective Preferential Tariff (CEPT). The CEPT is a means through which AFTA is in the process of reducing all intra-PTA tariffs to the 0 to 5 percent ad valorem range. ROOs are of course utilized to determine ASEAN origination. Efforts are underway to liberalize investment within ASEAN as well.

ASEAN is linking its AFTA to other countries in the region through a number of initiatives. For example, in the wake of the Asian financial crisis of 1997, ASEAN formed a relationship with the East Asian countries China, Japan and South Korea. This has become known as the ASEAN+3. ASEAN+3 initially focused on financial issues, but there has been talk of this regional partnership evolving into a PTA. This was overshadowed by a number of "ASEAN+1" agreements, including ASEAN-China (2002), ASEAN-Japan (2002), ASEAN-India (2002) and ASEAN-Republic of Korea (2009). In 2009, there was also concluded an ASEAN-Australia-New Zealand Free Trade Area or (AANZFTA).[28]

One interesting and oft-noted fact characterizing AFTA is that its major trading partners are outside of ASEAN. Cabalu and Alfonso (2007) attribute this to helping suppress trade diversion effects. Indeed, they note that ASEAN's trade with the rest of the world grew by nearly 7 percent annually in real (inflation-adjusted) terms between 1980 and 2005. Cabalu and Alfonso examined the trade patterns of the ASEAN-6 and found significant trade creation in basic industrial goods. They note that this is "in keeping with AFTA's goal of turning the region into a single production base" (p. 15).

Regionalism and Multilateralism

Due to their discriminatory nature, the presence of PTAs in the world trading system sits uneasily with principles of multilateralism. As we stated in the introduction, regionalism and multilateralism represent two alternative trade policy options available to the countries of the world. In the 1950s and 1960s, there had been what is now called the "first wave" of PTAs in the developing world, particularly in Latin America. This was often in conjunction

[27] See Tongzon (2009).
[28] These dates refer to the first official statements of intent, not of implementation.

with protectionist policies against the rest of the world, particularly in Latin America.[29] For example, there had been an ill-fated Central American Common Market (CACM) launched at the end of the 1960s. Beginning in the 1980's, there began what is now called the "second wave" of PTAs where there numbers began to increase substantially. The question on many observers' minds is whether this second wave of PTAs complements the multilateral framework or works at cross-purposes to it.

The (lengthy) policy discussion on the role of second-wave PTAs in the world trading system often takes the form whether they are more appropriately described as "building blocks" or "stumbling blocks" to multilateral trade liberalization.[30] As building blocks, PTAs could evolve as ever-expanding systems that bring more and more countries into postures of trade liberalization. For example, Baldwin (2006) envisions PTAs evolving into a form of "multilateralized regionalism." As stumbling blocks, PTA negotiations (and there are a lot of them) can take energy and focus away from multilateral trade negotiations. As Bhagwati (1993) stated many years ago, "the taking to two roads can affect adversely the travel down one" (p. 30).

There is also concern with regard to the overlapping and complex nature of PTAs and their ROOs. This has taken the form of what Bhagwati (1993) famously termed the "spaghetti bowl" of PTAs. On this point, Bhagwati, Greenaway, and Panagariya (1998) warned of a movement towards "numerous and crisscrossing (PTAs) and innumerable applicable tariff rates depending on arbitrarily-determined and often a multiplicity of sources of origin" (p. 1139). Take, for example, the case of Mexico. As discussed above, Mexico is a member of NAFTA, but it also is (at the time of this writing) a member of the following PTAs: Mexio-Chile, Mexico-Costa Rica, Mexico-EU, Mexico-European Free Trade Area, Mexico-Guatemala, Mexico-Honduras, Mexico-Israel, Mexico-Japan, and Mexico-Nicaragua. Mexico is connected to the United States via NAFTA, and the Central American countries in this list are connected to the United States via the Central American Free Trade Agreement. Simplicity this is not.

More positively, the perspective of international political economy suggests that trading blocs and customs unions (and their increased levels of trade and FDI) can have a role in reducing international conflict, including military conflict, a clear benefit.[31] There are also repeated calls for attempts to better leverage PTAs as building blocks to strengthened multilateralism on the grounds that trading blocs and customs unions are "here to stay." Economists, social scientists and policy makers will no doubt debate these issues for some time to come. What is clear, however, is that proper oversight of these arrangements at the level of the WTO is a necessary condition for a positive relationship between PTAs and the multilateral trading system. As discussed above, however, this oversight is missing.

The WTO could go further and tighten its requirements on the external protection of FTAs and CUs. To understand why this could be important, take a new look at the trade-

[29] In the Latin American case, see Chapter 9 of Bulmer-Thomas (1994).
[30] This terminology was first introduced by Bhagwati (1993).
[31] See, for example, Mansfield and Pevehouse (2000).

diverting PTA between Brazil and Argentina as depicted in Figure 8.2. Suppose that the tariff on imports from El Salvador had been eliminated, along with the tariff on imports from Argentina. If this were the case, Brazil would continue to import from El Salvador, there would be no trade diversion, and welfare would unambiguously increase. This fact has led some analysts to argue that external tariffs ought to be reduced in a CU or FTA in order to mitigate against trade diversion. Analysts similarly call for common external tariffs in CUs to be set to the *lowest* of the pre-CU tariffs of the members.[32]

These considerations indicate that it is possible to lessen the tensions between regionalism and multilateralism. It is probably not possible to eliminate these tensions entirely. As stated at the beginning of this chapter, "when multilateralism falters, regionalism picks up the pace." It is the responsibility of all WTO members, but especially the larger WTO members, to ensure that multilateralism does not falter. Without this commitment to multilateralism, no amount of tinkering with WTO provisions on PTAs will help.

"New" or "Open" Regionalism

In the debate of the relationship between PTAs and multilateralism, you will sometimes come across the terms *new regionalism* or *open regionalism*. It was Ethier (1998, 2001) who first made a case for what he termed "new regionalism." This new regionalism was distinct in his view from that "old regionalism" of the 1950s and 1960s in both its environment and its content. Countries were now engaging in PTAs while also committing to multilateral trade liberalization, with the membership of the WTO expanding steadily. Many PTAs also involve the liberalization of FDI (and harmonization of other policies) along with trade liberalization.

According the Ethier, "the new regionalism reflects the success of multilateralism—not its failure." Why? Small countries use PTAs as a means to secure the FDI inflows that make sustained trade liberalization possible. These FDI inflows are necessary to provide visible benefits to citizens that offset losses associated with trade liberalization. Note that our discussion of trade diversion and trade creation in Figures 8.1 and 8.2 said nothing about FDI flows. When it comes to the political economy of trade liberalization, these FDI flows can be important in maintaining political support for the multilateral trading system.

Sources: Ethier (1998, 2001)

Conclusion

The GATT and WTO have allowed for exceptions to the basic nondiscrimination principle in the case of four avenues to PTAs: FTAs, CUs, enabling clause arrangements and GATS arrangements. These and other PTAs have been part of the world trading system for

[32] See McMillan (1993), Bhagwati (1993), and Serra et al. (1997).

decades, and all evidence points to their continued presence. The evolution of PTAs in Europe, the Americas and Asia are some prominent examples. PTAs may improve or worsen welfare depending on the balance between their trade creation and trade diversion effects. Trade policy faces the significant challenge of incorporating the preferential predilections of the WTO's member countries into a general multilateral evolution of world trade. This challenge can only be met by WTO oversight of active PTAs. Unfortunately, this important ingredient has been and continues to be missing.

Review Exercises

1. What distinguishes a customs union from a free trade area? What distinguishes a common market from a customs union?

2. What is the difference between trade creation and trade diversion? Can you provide an example of each?

3. Do you support regionalism and PTAs as a legitimate trade policy option? Why or why not?

4. We mentioned above that the size of Brazil's tariff against El Salvador affects the amount of trade diversion that occurs in a PTA. Use a version of Figure 8.2 to demonstrate that the lower is *T* against El Salvador, the more likely it is that the PTA will improve welfare. Show that if the *T* on imports from Venezuela were eliminated, the PTA would unambiguously improve welfare.

5. Pay a visit to the WTO's web site on regionalism. From www.wto.org, follow the link to "Trade Issues" and, from there, to "Regionalism." Spend some time perusing the WTO's materials on this issue.

Further Reading and Web Resources

An early and important analysis of PTAs can be found in de Melo and Panagariya (1993a, b). A more recent source on regional integration more broadly and its links to development is Schiff and Winters (2003). For a view from the perspective of the WTO, see Crawford and Fiorentino (2005). An important overview of the European Union can be found in Dinan (2005). See also Sapir (2000). For NAFTA, see Hufbauer and Schott (2005). For a critical review of Mercosur, see Malamud (2005). For a concise introduction to the FTAA, see Feinberg (2009). Readers who want to delve deeper into issues of the role of ASEAN and AFTA in Asian PTAs can consult Francois and Wignaraja (2008).

The WTO maintain a Regional Trade Agreements Information System (RTA-IS). To access this, go to www.wto.org and select: Trade Topics ⇒ Regional Trade Agreements ⇒ RTA Database. The European Union's website can be found at europa.eu. The NAFTA Secretariat's home page is www.nafta-sec-alena.org. The official Mercosur

website is at www.mercosur.int, and the FTAA website is at www.alca-ftaa.org. Finally, the ASEAN Free Trade Area website is at www.aseansec.org.

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Appendix: Rules of Thumb in Evaluating PTAs

Despite the importance of multilateral trade negotiations, preferential trade agreements or PTAs have been of growing importance in the world trading system. As shown in this chapter, the welfare effects of PTAs involve a degree of ambiguity. Consequently, trade policy analysts have turned to mathematical models known as applied general equilibrium (AGE) models to investigate the economic effects, including welfare effects, of this increasingly-important component of the world economy.[33]

A large and increasing number of PTAs have been analyzed using this modeling methodology, and researchers Harrison, Rutherford and Tarr (2003) identified a number of empirical regularities deriving from their simulations of PTAs in Chile, Brazil, Morocco, Tunisia, Turkey, Iran, and Kyrgyzstan. They refer to these empirical regularities as "rules of thumb" for evaluating PTAs. A few of these are as follows.

1. Countries excluded from a PTA almost always lose.
2. Market access is a key determinant of the net benefits of a PTA.

[33] On AGE models in general, see Reinert (2009).

3. Lowering external tariffs against non-members of a PTA improves their desirability from a welfare standpoint.
4. Multilateral trade liberalization results in significantly larger gains to the world than a network of PTAs.
5. For some countries “additive PTAs” can be more beneficial than unilateral trade liberalization due to the market access gains involved in the former.
6. For developing countries “North-South” PTAs can offer beneficial increases in competition in their home markets.

These are the sorts of insights available from AGE models of PTAs. For further examples of AGE modeling applied to PTAs, see Reinert and Roland-Holst (1998) and Francois and Wignaraja (2008).