chapter

10

Economic Integration: Customs Unions and Free Trade Areas

LEARNING GOALS:

After reading this chapter, you should be able to:

- Understand the meaning of trade creation, trade diversion, and the dynamic benefits of economic integration
- Describe the importance and effects of the European Union (EU) and NAFTA
- Describe attempts at economic integration among developing countries and countries in Central and Eastern Europe

10.1 Introduction

In this chapter, we examine economic integration in general and customs unions in particular. The theory of economic integration refers to the commercial policy of discriminatively reducing or eliminating trade barriers only among the nations joining together. The degree of economic integration ranges from preferential trade arrangements to free trade areas, customs unions, common markets, and economic unions.

Preferential trade arrangements provide lower barriers on trade among participating nations than on trade with nonmember nations. This is the loosest form of economic integration. The best example of a preferential trade arrangement is the *British Commonwealth Preference Scheme*, established in 1932 by the United Kingdom with members and some former members of the British Empire.

A free trade area is the form of economic integration wherein all barriers are removed on trade among members, but each nation retains its own barriers to trade with nonmembers. The best examples are the *European Free Trade Association (EFTA)*, formed in 1960 by the United Kingdom, Austria, Denmark, Norway, Portugal, Sweden, and Switzerland; the *North American Free Trade Agreement (NAFTA)*, formed by the United States, Canada, and Mexico in 1993; and the

Southern Common Market (Mercosur) formed by Argentina, Brazil, Paraguay, and Uruguay in 1991.

A customs union allows no tariffs or other barriers on trade among members (as in a free trade area), and in addition it harmonizes trade policies (such as the setting of common tariff rates) toward the rest of the world. The most famous example is the European Union (EU), or *European Common Market*, formed in 1957 by West Germany, France, Italy, Belgium, the Netherlands, and Luxembourg. Another example is the *Zollverein*, or customs union, established in 1834 by a large number of sovereign German states, which proved significant in Bismarck's unification of Germany in 1870.

A common market goes beyond a customs union by also allowing the free movement of labor and capital among member nations. The EU achieved the status of a common market at the beginning of 1993.

An economic union goes still further by harmonizing or even unifying the monetary and fiscal policies of member states. This is the most advanced type of economic integration. An example is *Benelux*, which is the economic union of Belgium, the Netherlands, and Luxembourg, formed after World War II (and now part of the EU). An example of a *complete* economic and monetary union is our own United States.

An interesting recent development that can be analyzed with the same concepts used to analyze customs unions is duty-free zones or free economic zones. These are areas set up to attract foreign investments by allowing raw materials and intermediate products duty-free.

The discussion in this chapter is generally in terms of customs unions, but most of what is said refers also to other forms of regional economic association. In Section 10.2, we examine a trade-creating customs union. In Section 10.3, we analyze a trade-diverting customs union. Section 10.4 presents the theory of the second best. Section 10.5 examines the dynamic effects of customs unions, and Section 10.6 gives a brief history of various attempts at economic integration. The appendix presents the general equilibrium analysis of the static effects of a trade-diverting customs union and provides information on the regional trade agreements (RTAs) in operation today.

10.2 Trade-Creating Customs Union

In this section, we first explain the process of trade creation, and then we illustrate the effects of a trade-creating customs union.

10.2A Trade Creation

The static, *partial equilibrium* effects of forming a customs union are measured in terms of trade creation and trade diversion. Trade creation occurs when some domestic production in a nation that is a member of the customs union is replaced by lower-cost imports from another *member nation*. Assuming that all economic resources are fully employed before and after formation of the customs union, this increases the welfare of member nations because it leads to greater specialization in production based on comparative advantage. A trade-creating customs union also increases the welfare of nonmembers because some of the increase in its real income (due to its greater specialization in production) spills over into increased imports from the rest of the world.

10.2B Illustration of a Trade-Creating Customs Union

The effects of a trade-creating customs union are illustrated in Figure 10.1, which is adapted from Figure 8.3. D_X and S_X in Figure 10.1 are Nation 2's domestic demand and supply curves of commodity X. Suppose that the free trade price of commodity X is $P_X = \$1$ in Nation 1 and $P_X = \$1.50$ in Nation 3 (or the rest of the world), and Nation 2 is assumed to be too small to affect these prices. If Nation 2 initially imposes a nondiscriminatory ad valorem tariff of 100 percent on all imports of commodity X, then Nation 2 will import commodity X from Nation 1 at $P_X = \$2$. At $P_X = \$2$, Nation 2 consumes 50X *(GH)*, with 20X *(GJ)* produced domestically and 30X *(JH)* imported from Nation 1. Nation 2 also collects \$30 *(MJHN)* in tariff revenues. In the figure, S_1 is Nation 1's perfectly elastic supply curve of commodity X to Nation 2 under free trade, and $S_1 + T$ is the tariff-inclusive supply curve. Nation 2 does not import commodity X from Nation 3 because the tariff-inclusive price of commodity X imported from Nation 3 would be $P_X = \$3$.

If Nation 2 now forms a customs union with Nation 1 (i.e., removes tariffs on its imports from Nation 1 only), $P_X = \$1$ in Nation 2. At this price, Nation 2 consumes 70X *(AB)* of commodity X, with 10X *(AC)* produced domestically and 60X *(CB)* imported from Nation 1. In this case, Nation 2 collects no tariff revenue. The benefit to consumers in Nation 2 resulting from the formation of the customs union is equal to *AGHB* (the increase in the consumer surplus defined in Section 8.2B). However, only part of this represents a net gain for Nation 2 as a whole. That is, *AGJC* represents a reduction in rent, or producer surplus, while *MJHN* represents the loss of tariff revenues. This leaves the sum of the area of shaded triangles *CJM* and *BHN*, or \$15, as the net static welfare gain for Nation 2.

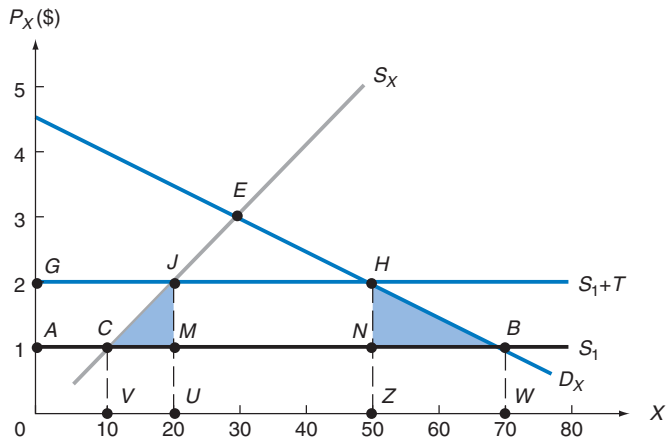

FIGURE 10.1. A Trade-Creating Customs Union.
D_X and S_X represent Nation 2's domestic demand and supply curves of commodity X. At the tariff-inclusive $P_X = \$2$ before the formation of the customs union, Nation 2 consumes 50X *(GH)*, with 20X *(GJ)* produced in Nation 2 and 30X *(JH)* imported from Nation 1. Nation 2 also collects a tariff revenue of \$30 *(MJHN)*. Nation 2 does not import commodity X from Nation 3 because the tariff-inclusive $P_X > \$2$. After Nation 2 forms a customs union with Nation 1 only, Nation 2 consumes 70X *(AB)*, with 10X *(AC)* produced domestically and 60X *(CB)* imported from Nation 1 at $P_X = \$1$. The tariff revenue disappears, and area *AGJC* represents a transfer from domestic producers to domestic consumers. This leaves net static gains to Nation 2 as a whole equal to \$15, given by the sum of the areas of shaded triangles *CJM* and *BHN*.

Triangle *CJM* is the production component of the welfare gain from trade creation and results from shifting the production of 10X *(CM)* from less efficient domestic producers in Nation 2 (at a cost of *VUJC*) to more efficient producers in Nation 1 (at a cost of *VUMC)*. Triangle *BHN* is the consumption component of the welfare gain from trade creation and results from the increase in consumption of 20X *(NB)* in Nation 2, giving a benefit of *ZWBH* with an expenditure of only *ZWBN*.

Viner, who pioneered the development of the theory of customs unions in 1950, concentrated on the production effect of trade creation and ignored the consumption effect. *Meade* extended the theory of customs unions in 1955 and was the first to consider the consumption effect. *Johnson* then added the two triangles to obtain the total welfare gain of a customs union. (See the Selected Bibliography for the complete references.)

10.3 Trade-Diverting Customs Unions

In this section, we first explain the meaning of trade diversion, and then we illustrate the effects of a trade-diverting customs union.

10.3A Trade Diversion

Trade diversion occurs when lower-cost imports from outside the customs union are replaced by higher cost imports from a union member. This results because of the preferential trade treatment given to member nations. Trade diversion, by itself, reduces welfare because it shifts production from more efficient producers outside the customs union to less efficient producers inside the union. Thus, trade diversion worsens the international allocation of resources and shifts production away from comparative advantage.

A trade-diverting customs union results in *both* trade creation and trade diversion, and therefore can increase or reduce the welfare of union members, depending on the relative strength of these two opposing forces. The welfare of nonmembers can be expected to decline because their economic resources can only be utilized less efficiently than before trade was diverted away from them. Thus, while a trade-creating customs union leads only to trade creation and unequivocably increases the welfare of members and nonmembers, a trade-diverting customs union leads to both trade creation and trade diversion, and can increase or reduce the welfare of members (and will reduce the welfare of the rest of the world).

10.3B Illustration of a Trade-Diverting Customs Union

The effects of a trade-diverting customs union are illustrated in Figure 10.2. In this figure, D_X and S_X are Nation 2's domestic demand and supply curves of commodity X, while S_1 and S_3 are the free trade perfectly elastic supply curves of Nation 1 and Nation 3, respectively. With a nondiscriminatory 100 percent tariff on imports of commodity X, Nation 2 imports commodity X from Nation 1 at $P_X = \$2$, along $S_1 + T$ (exactly as in Figure 10.1). As seen earlier, at $P_X = \$2$, Nation 2 consumes 50X *(GH)*, with 20X *(GJ)* produced domestically and 30X *(JH)* imported from Nation 1. Nation 2 also collects \$30 *(JMNH)* in tariff revenues.

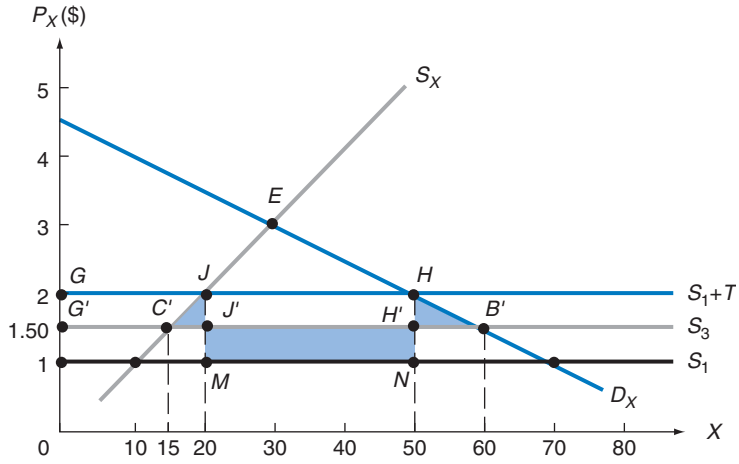

FIGURE 10.2. A Trade-Diverting Customs Union.
D_X and S_X represent Nation 2's domestic demand and supply curves of commodity X, while S_1 and S_3 are the free trade perfectly elastic supply curves of commodity X of Nation 1 and Nation 3, respectively. With a nondiscriminatory 100 percent tariff, Nation 2 imports 30X *(JH)* at $P_X = \$2$ from Nation 1. After forming a customs union with Nation 3 only, Nation 2 imports 45X *(C′B′)* at $P_X = \$1.50$ from Nation 3. The welfare gain in Nation 2 from pure trade creation is \$3.75 (given by the sum of the areas of the two shaded triangles). The welfare loss from trade diversion proper is \$15 (the area of the shaded rectangle). Thus, this trade-diverting customs union leads to a net welfare loss of \$11.25 for Nation 2.

If Nation 2 now forms a customs union with Nation 3 only (i.e., removes tariffs on imports from Nation 3 only), Nation 2 finds it cheaper to import commodity X from Nation 3 at $P_X = \$1.50$. At $P_X = \$1.50$, Nation 2 consumes 60X *(G′B′)*, with 15X *(G′C′)* produced domestically and 45X *(C′B′)* imported from Nation 3. In this case, Nation 2 collects no tariff revenue. The imports of commodity X into Nation 2 have now been *diverted* from the more efficient producers in Nation 1 to the less efficient producers in Nation 3 because the tariff discriminates against imports from Nation 1 (which is outside the union). Note that Nation 2's imports of commodity X were 30X before formation of the customs union and 45X afterward. Thus, the trade-diverting customs union also leads to some trade creation.

The static welfare effects on Nation 2 resulting from the formation of a customs union with Nation 3 can be measured from the shaded areas shown in Figure 10.2. The sum of the areas of shaded triangles $C′JJ′$ and $B′HH′$ (\$3.75) is the welfare gain resulting from pure trade creation, while the area of shaded rectangle $MNH′J′$ (\$15) is the welfare loss from diverting the initial 30X *(JH)* of imports from lower cost Nation 1 to higher cost Nation 3. Specifically, of the gain in consumer surplus of $G′GHB′$ resulting from the formation of the customs union, $G′GJC′$ represents a transfer from producer to consumer surplus in Nation 2 and therefore washes out (i.e., leaves no net gain or loss for Nation 2 as a whole). Of the $JMNH$ (\$30) tariff revenue collected by Nation 2 before the formation of the customs union with Nation 3, $J′JHH′$ is transferred to consumers in Nation 2 in the form of the lower price of commodity X after the formation of the customs union. This leaves only shaded triangles $C′JJ′$ and $B′HH′$ as the net gain to Nation 2 and shaded rectangle $MNH′J′$ as the still unaccounted for loss of tariff revenue.

Since the area of the shaded rectangle ($15) measuring the welfare loss from trade diversion proper exceeds the sum of the areas of the shaded triangles ($3.75) measuring the welfare gain from pure trade creation, this trade-diverting customs union leads to a net welfare loss of $11.25 for Nation 2. This need not always be the case, however. Looking at Figure 10.2, we can see that the flatter (i.e., the more elastic in the relevant range) D_X and S_X are and the closer S_3 is to S_1, the greater is the sum of the areas of the shaded triangles and the smaller the area of the shaded rectangle. This makes it more likely that even a trade-diverting customs union will lead to a net welfare gain for the nation joining the union. (The figure showing this is left as an end-of-chapter problem.) The static welfare effects of a trade-diverting customs union are examined within the more advanced general equilibrium framework in the appendix to this chapter.

The several attempts to measure (along the lines discussed above) the static welfare effects resulting from the formation of the European Union all came up with surprisingly small *net static* welfare gains (in the range of 1 to 2 percent of GDP).

10.4 The Theory of the Second Best and Other Static Welfare Effects of Customs Unions

We now examine the general principle known as the theory of the second best, of which the theory of customs unions is a special case. We then go on to examine the conditions under which a customs union is more likely to lead to trade creation and increased welfare, and finally we examine some other static welfare effects of customs unions.

10.4A The Theory of the Second Best

We saw in Part One that free trade leads to the most efficient utilization of world resources and thus maximizes world output and welfare. Therefore, prior to *Viner's* work on customs unions in 1950, it was widely believed that any movement toward freer trade would also increase welfare. To the extent that a customs union does not increase trade barriers against the rest of the world, the elimination of trade barriers among union members represents a movement toward freer trade. As such, it was believed to increase the welfare of member and nonmember nations alike.

However, *Viner* showed that the formation of a customs union could increase or reduce the welfare of member nations and of the rest of the world, depending on the circumstances under which it takes place. This is an example of the theory of the second best, which states that if all the conditions required to maximize welfare or reach Pareto optimum cannot be satisfied, trying to satisfy as many of these conditions as possible does not necessarily or usually lead to the second-best position. Thus, forming a customs union and removing trade barriers only among the members will not necessarily produce the second-best welfare position (as evidenced by the fact that welfare can rise or fall). This somewhat startling conclusion has great significance not only for the field of international economics (from which it originated) but for the study of economics in general. The theory of customs unions is just one example from international trade of this general principle. From its somewhat vague beginning in the work of *Viner*, the theory of the second best was then fully developed by *Meade* in 1955 and generalized by *Lipsey and Lancaster* in 1956.

10.4B Conditions More Likely to Lead to Increased Welfare

A customs union is more likely to lead to trade creation and increased welfare under the following conditions:

1. The higher are the preunion trade barriers of member countries. There is then a greater probability that formation of the customs union will create trade among union members rather than divert trade from nonmembers to members.
2. The lower are the customs union's barriers on trade with the rest of the world. This makes it less likely that formation of the customs union will lead to costly trade diversion.
3. The greater is the number of countries forming the customs union and the larger their size. Under these circumstances, there is a greater probability that low-cost producers fall within the union.
4. The more competitive rather than complementary are the economies of member nations. There are then greater opportunities for specialization in production and trade creation with the formation of the customs union. Thus, a customs union is more likely to increase welfare if formed by two competitive industrial nations rather than by an industrial nation and an agricultural (complementary) nation.
5. The closer geographically are the members of the customs union. Then transportation costs represent less of an obstacle to trade creation among members.
6. The greater is the preunion trade and economic relationship among potential members of the customs union. This leads to greater opportunities for significant welfare gains as a result of the formation of the customs union.

The European Union (EU) has had greater success than the European Free Trade Association (EPTA) because the nations forming the EU were much more competitive than complementary, were closer geographically, and had greater preunion trade than the EFTA nations (reasons 4, 5, and 6 above).

10.4C Other Static Welfare Effects of Customs Unions

There are other *static* welfare effects resulting from the formation of a customs union. One is the administration savings from the elimination of customs officers, border patrols, and so on, for trade among member nations. This benefit arises whether the customs union is trade creating or trade diverting.

Second, a trade-diverting customs union, by reducing its demand for imports from and its supply of exports to the rest of the world, is likely to lead to an improvement in the *collective* terms of trade of the customs union. This can be shown graphically by an inward shift in the customs union's offer curve. However, for a trade-creating customs union, the opposite is likely to be true, since part of the increase in real income resulting from formation of the customs union spills over into a greater demand for imports from the rest of the world. Whether an *individual* member's terms of trade improve, deteriorate, or remain unchanged depends on the circumstances.

Finally, any customs union, by acting as a single unit in international trade negotiations, is likely to have much more bargaining power than all of its members separately. There is no doubt, for example, that this is the case for the EU.

10.5 Dynamic Benefits from Customs Unions

Besides the static welfare effects discussed earlier, the nations forming a customs union are likely to receive several important *dynamic* benefits. These are due to increased competition, economies of scale, stimulus to investment, and better utilization of economic resources. These will be examined in turn.

The greatest dynamic benefit from the formation of a customs union is the *increased competition* that is likely to result. That is, in the absence of a customs union, producers (especially those in monopolistic and oligopolistic markets) are likely to grow sluggish and complacent behind trade barriers. But when a customs union is formed and trade barriers among member nations are eliminated, producers in each nation must become more efficient to meet the competition of other producers within the union, merge, or go out of business. The increased level of competition is also likely to stimulate the development and utilization of new technology. All of these efforts will cut costs of production to the benefit of consumers. A customs union must, of course, be careful (by passing and enforcing antitrust legislation) that such oligopolistic practices as collusion and market-sharing agreements, which earlier might have restricted competition nationally, are not replaced by similar union-wide practices after the formation of the customs union. The EU has attempted to do just that.

A second possible benefit from the formation of a customs union is that *economies of scale* are likely to result from the enlarged market. However, it must be pointed out that even a small nation that is not a member of any customs union can overcome the smallness of its domestic market and achieve substantial economies of scale in production by exporting to the rest of the world. For example, it was found that plants in many major industries in such relatively small nations as Belgium and the Netherlands were already of comparable size to U.S. plants before they joined the EU and thus already enjoyed substantial economies of scale by producing for the domestic market and for export. Nevertheless, significant economies were achieved after the formation of the EU by reducing the range of differentiated products manufactured in each plant and increasing "production runs" (see Section 6.4A).

Another possible benefit is the *stimulus to investment* to take advantage of the enlarged market and to meet the increased competition. Furthermore, the formation of a customs union is likely to spur outsiders to set up production facilities within the customs union to avoid the (discriminatory) trade barriers imposed on nonunion products. These are the so-called tariff factories. The massive investments that U.S. firms made in Europe after 1955 and again after 1986 can be explained by their desire not to be excluded from this rapidly growing market.

Finally, in a customs union that is also a common market, the free community-wide movement of labor and capital is likely to result in better utilization of the economic resources of the entire community.

These dynamic gains resulting from the formation of a customs union are presumed to be much greater than the static gains discussed earlier and to be very significant. Indeed,

the United Kingdom joined the EU in 1973 primarily because of them. Recent empirical studies seem to indicate that these dynamic gains are about five to six times larger than the static gains. The monetary aspects of the formation of a customs union are discussed under the heading of "optimum currency areas" in Section 20.4.

To be pointed out, however, is that joining a customs union because of the static and dynamic benefits that it provides is only a second-best solution. The best policy may be for a nation to *unilaterally* eliminate all trade barriers. For a nation such as the United States that is large enough to affect its terms of trade, however, the efficiency benefits resulting from unilaterally eliminating its trade barriers must be weighed against the worsening of its terms of trade. The unilateral elimination of all trade barriers would also be difficult politically because of strong opposition from the very vocal and influential minorities that would be hurt in the process. A related question is whether regional blocs are building blocks or stumbling blocks to free multilateral trade. There is a great deal of disagreement here. Some economists believe that regional blocs permit more rapid (even if partial) trade liberalization. Others, such as Bhagwati, feel that they retard multilateral trade liberalization and lead to potential interbloc conflicts. Perhaps we can have the best of both worlds if trading blocs strive to reduce external as well as internal trade barriers and easily admit new members.

10.6 History of Attempts at Economic Integration

In this section, we briefly survey the history of attempts at economic integration, starting with the formation of the European Union, the European Free Trade Association, the North American Free Trade Area, and the Southern (American) Common Market, and then examining other attempts at economic integration among developing countries and among the Republics of the former Soviet Union.

10.6A The European Union

The *European Union (EU)*, then called the European Common Market, was founded by the Treaty of Rome, signed in March 1957 by West Germany, France, Italy, Belgium, the Netherlands, and Luxembourg, and came into being on January 1, 1958. The common external tariff was set at the average of the 1957 tariffs of the six nations. Free trade in industrial goods within the EU and a common price for agricultural products were achieved in 1968, and restrictions on the free movement of labor and capital were reduced by 1970. Membership increased to 15 after the United Kingdom, Denmark, and Ireland joined in 1973, Greece in 1981, Spain and Portugal in 1986, and Austria, Finland, and Sweden in 1995. On January 1, 1993, the EU removed all remaining restrictions on the free flow of goods, services, and resources (including labor) among its members, thus becoming a single unified market. By 2008, the EU had expanded to 27 members and represented the largest trading bloc in the world (see Case Study 10-1). Intra-EU trade has been estimated to be double what it would have been in the absence of integration. More than half of this trade expansion has been in intra-industry trade (see Section 6.4A).

The formation of the EU significantly expanded trade in industrial goods with nonmembers. This was due to (1) the very rapid growth of the EU, which increased its demand for imports of industrial products from outside the union, and (2) the reduction to very low

CASE STUDY 10-1 Economic Profile of the EU, NAFTA, and Japan

Table 10.1 provides an economic profile of the European Union (EU-27), the North American Free Trade Area (NAFTA), and Japan in 2010. The table shows that the EU-27 has 110 percent of NAFTA's population, 102 percent of its gross national income (GNI), and 89 percent of its weighted average GNI per capita. Total EU-27 merchandise exports and extra-EU-27 merchandise exports (i.e., exports to the rest of the world) are, respectively, 262 percent and 91 percent of NAFTA's total exports. Corresponding figures for total EU-27 imports and extra-EU-27 imports are, respectively, 200 percent and 74 percent. Japan has 25 percent of EU-27 population, 31 percent of its GNI, 127 percent of its per capita income, 43 percent of extra-EU-27 exports, and 34 percent of extra-EU-27 imports. With respect to NAFTA, Japan has 28 percent of its population, 32 percent of its GNI, 39 percent of its exports, and 26 percent of its imports.

TABLE 10.1. The EU, NAFTA, and Japan

Country	Population (millions)	GNI (billions)	GNI (per capita)	Exports (billions)	Imports (billions)
EU(15):	398.5	$16,100.8	$38,539	$4,558.4	$4,621.6
Of which:					
Germany	81.7	3,537.2	43,330	1,268.9	1,066.8
France	64.9	2,749.8	42,390	520.7	605.7
U.K.	62.2	2,399.3	38,540	405.7	560.1
Italy	60.5	2,125.8	35,090	447.5	483.8
Spain	46.1	1,462.9	31,650	245.6	314.3
New Entrants:	103.4	1,260.1	12,229	594.7	631.9
Of which:					
Poland	38.2	474.0	12,420	155.8	173.6
Total EU(27)	501.9	17,360.9	33,124	5,153.2	5,356.0
Extra-EU(27)	—	—	—	1,788.1	1,990.9
Canada	34.1	1,415.4	41,950	388.0	402.3
Mexico	113.4	1,012.3	9,330	298.3	310.6
U.S.	309.1	14,600.8	47,140	1,278.3	1,969.2
Total NAFTA	456.6	17,028.5	37,362	1,964.6	2,682.1
Japan	127.5	5,369.1	42,150	769.8	694.1

EU(15) includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom. New Entrants (12) are: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, and Slovenia.
Sources: World Bank, *World Development Report 2012* (Washington, D.C.: World Bank, 2012) and World Trade Organization, *International Trade Statistics* (Geneva: WTO, 2011).

levels of the average tariff on imports of industrial products as a result of the Kennedy and Tokyo Rounds (initiated by the United States, which feared trade diversion). On the other hand, the formation of the EU resulted in trade diversion in agricultural commodities, particularly in temperate products, such as grain from the United States.

The development of a *common agricultural policy (CAP)* was particularly trouble some for the EU. The final outcome sacrificed consumers' interests to those of EU farmers in general, and French farmers in particular, by setting relatively high farm prices. The procedure

is as follows. First, the EU determines common farm prices, and then it imposes tariffs so as always to make the price of imported agricultural products equal to the high established EU prices. These are the so-called variable import levies. The high farm support price level has also led to huge agricultural surpluses within the EU, high storage costs, and subsidized exports (see Section 9.3E on export subsidies and Case Study 9-4). This farm policy was a major obstacle to British entry into the EU because Britain kept agricultural prices low and instead aided its farmers by "deficiency payments" to raise their income to desired levels. It has also been responsible for some of the sharpest trade disputes with the United States and at the Uruguay Round and Doha Round negotiations (see Section 9.7).

At the Lomé Convention in 1975, the EU eliminated most trade barriers on imports from 46 developing nations in Africa, the Caribbean, and the Pacific region that were former colonies of EU countries. This treaty was renewed every five years—1980, 1985, 1990, and 1995—and the number of associate states (AS) rose to 71. Earlier, in 1971, the EU had granted generalized tariff preferences to imports of manufactured and semimanufactured products from developing nations. But textiles, steel, consumer electronics, shoes, and many other products of great importance to developing nations were excluded. Preferences were extended to trade in tropical products in the Tokyo Round in 1979. However, since these preferences fell short of the complete elimination of trade barriers granted to former colonies, a bitter controversy arose because of the alleged trade diversion. Quotas and tariffs on developing countries' exports were gradually reduced as a result of the Uruguay Round completed in December 1994 (see Section 9.7). In February 2000, *Lomé IV* expired and was replaced by a new agreement, the *Cotonou Agreement*, signed in Cotonou, Benin, in June 2000. The new agreement had the same general purpose as the Lomé Convention. The EU replaced the *Cotonou Agreement* in January 2008 with "new partnership agreements (NPAs) based on reciprocity" with the 79 countries involved, broken into six regional groups.

As pointed out earlier, the static welfare benefits resulting from the formation of the EU are estimated to be 1 to 2 percent of GDP, while the dynamic benefits are estimated to be much larger (see Case Study 10-2). Perhaps the greatest benefit has been political, resulting

CASE STUDY 10-2 Gains from the Single EU Market

At the beginning of 1993, all remaining restrictions to the free flow of goods, services, capital, and labor among member nations were eliminated so that the EU became a single, unified market. Over time, this was expected to result in substantial efficiency gains and other benefits to the EU. Table 10.2 shows that the EU's gross domestic product (GDP) was expected to increase by 0.2 percent from the removal of nontariff trade barriers, 2.2 percent from the removal of production barriers, 1.65 percent from economies of scale, and 1.25 percent from intensified competition, for an overall total (one-time) gain of 5.3 percent of the EU's GDP in 1988. This was equivalent to about $265 billion. In addition, the overall rate of inflation was expected to fall by 6.1 percent and 1.8 million additional jobs were expected to be created, thereby reducing the average rate of unemployment in the EU by 1.5 percentage points. The EU92 Program also induced large foreign direct investments from the United States and Japan in anticipation of a possible increase in EU protectionism against outsiders. In 2003, the European Commission actually put the gains of EU92 at about 2 percent of EU's GDP.

(continued)

■ CASE STUDY 10-2 Continued

■ TABLE 10.2. Potential Benefits from a Fully Integrated Internal Market in the EU

	Percent of EU's 1988 GDP
Gains from	
Removal of nontariff trade barriers	0.20
Removal of production barriers	2.20
Economies of scale	1.65
Intensified competition	1.25
Overall total gains	5.30

Source: P. Cecchini, *The European Challenge: 1992* (Aldershot, England: Wildwood House, 1988).

from unifying into a single economic community nations, such as Germany and France, that were once bitter enemies. The United States has been of two minds on European unity, supportive yet wary of losing influence. In 1986, the EU amended the *Treaty of Rome* with the *Single European Act*, which provided for the removal of all remaining barriers to the free flow of goods, services, and resources among members. This was actually achieved with the *EU 1992 Program*, which turned the EU into a single unified market at the beginning of 1993. This led to the pouring in of foreign direct investments into the EU out of fear of increased protectionism against outsiders.

Other highlights in the operation of the EU are as follows: (1) Member nations have adopted a common *value-added tax system*, under which a tax is levied on the value added to the product at each stage of its production and passed on to the consumer. (2) The *Commission* (the executive body of the EU headquartered in Brussels) proposes laws, monitors compliance with treaties, and administers common policies such as antitrust policies. (3) The *Council of Ministers* (whose members represent their own national governments) makes final decisions but only on the recommendation of the Commission. There is also a *European Parliament* (with 751 members elected by direct vote in the member nations every five years but without much power at present) and a *Court of Justice* (with power to rule on the constitutionality of the decision of the Commission and the Council). (4) Plans have also been drawn for full monetary union, including harmonization of monetary and fiscal policies, and eventual full political union (see Section 20.4B).

In May 2004, ten countries, mostly from the former communist bloc in Central and Eastern Europe, became members of the European Union. The ten countries are Poland, Hungary, the Czech Republic, the Slovak Republic, Slovenia, Estonia, Lithuania, Latvia, Malta, and Cyprus. Bulgaria and Romania joined in 2008, and others, such as Turkey, are negotiating accession. With the admission of the 12 new members, the European Union is now comparable in size to NAFTA (see Table 10.1).

10.6B The European Free Trade Association

In 1960 the free trade area known as the European Free Trade Association (EFTA) was formed by the "outer seven" nations: the United Kingdom, Austria, Denmark, Norway, Portugal, Sweden, and Switzerland, with Finland becoming an associate member in 1961.

The EFTA achieved free trade in industrial goods in 1967, but only a few special provisions were made to reduce barriers on trade in agricultural products.

The maintenance by each nation of its own trade barriers against nonmembers can lead to the problem of trade deflection. This refers to the entry of imports from the rest of the world into the low-tariff member of the association to avoid the higher tariffs of other members. To combat trade deflection requires checking the original source and the final country of destination of all imports. The problem, of course, does not arise in a customs union because of its common external tariff, and it is much less serious in preferential trade arrangements, where only small tariff preferences are granted to members.

Iceland acceded the EFTA in 1970, Finland became a full member in 1986, and Liechtenstein, a part of the Swiss customs area, in 1991. However, in 1973, the United Kingdom and Denmark left the EFTA and, together with Ireland, joined the EU, as did Portugal in 1986. Thus, in 1991, the EFTA had seven members (Austria, Finland, Iceland, Liechtenstein, Norway, Sweden, and Switzerland) with headquarters in Geneva. On January 1, 1994, the EFTA joined the EU to form the European Economic Area (EEA), a customs union that will eventually allow the free movement of most goods, services, capital, and people among the 17 member nations (Switzerland and Liechtenstein rejected the treaty in December 1992 and Liechtenstein cannot join without Switzerland), with a combined population of 385 million people. In 1995, Austria, Finland, and Sweden left the EFTA and joined the EU, leaving the EFTA with only four members (Switzerland, Norway, Iceland, and Liechtenstein).

10.6c The North American and Other Free Trade Agreements

In September 1985, the United States negotiated a free trade agreement with Israel. This was the first bilateral trade agreement signed by the United States. It provided for bilateral reductions in tariff and nontariff barriers to trade in goods between the two countries. Trade in services was also liberalized, and some provisions were made for the protection of intellectual property rights.

Although the United States and Canada have had a free trade agreement in autos since 1965, a comprehensive economy-wide, free trade agreement had proved elusive for over a century. In 1988, such a free trade agreement was finally negotiated. By the time the pact went into effect in January 1, 1989, Canada was already by far the largest trading partner of the United States, with two-way yearly trade of about $150 billion (75 percent of which was already duty-free). The pact called for the elimination of most of the remaining tariff and nontariff trade barriers between the two countries by 1998. As a result of the agreement, Canada was estimated to have grown 5 percent faster and the United States 1 percent faster than without the agreement, and hundreds of thousands of jobs were created on both sides of the border.

The pact also established for the first time a set of rules governing trade in services, with each country agreeing to treat each other's service sector in the same way it treated its own and reducing the red tape for accountants, lawyers, engineers, and other professionals in crossing the border. In addition, the pact dropped all remaining restrictions on the shipment of energy between the two countries and reduced restrictions on investments in each other's markets.

In September 1993, the United States, Canada, and Mexico signed the North American Free Trade Agreement (NAFTA), which took effect on January 1, 1994. This agreement is to eventually lead to free trade in goods and services over the entire North American area.

NAFTA will also phase out many other barriers to trade and reduce barriers to cross-border investment among the three countries. With $40 billion of exports to and $41 billion of imports from the United States in 1993, Mexico was already the United States' third largest trading partner after Canada and Japan at the time the agreement took effect. The main impact of NAFTA was on trade between the United States and Mexico. (Canada only joined in the negotiations to ensure that its interests were protected.)

The implementation of NAFTA benefits the United States by increasing competition in product and resource markets, as well as by lowering the prices of many commodities to U.S. consumers. In fact, between 1994 and 2008, two-way trade between the United States and Mexico more than tripled. Because the U.S. economy is more than 15 times larger than Mexico's economy, the U.S. gains from NAFTA as if a proportion of its GDP were much smaller than Mexico's. Furthermore, with wages more than six times higher in the United States than in Mexico, NAFTA was expected to lead to a loss of unskilled jobs, but an increase of skilled jobs, for an overall net increase in employment in the United States between 90,000 and 160,000 (see *Inter-American Development Bank*, 2002). A more recent study by *Hufbauer and Schott* (2005), however, concluded that the net gain in U.S. jobs as a result of NAFTA may have been much smaller (and may even have resulted in a small net loss). States (such as Alabama and Arkansas) suffered while high-wage areas gained, but with a 15-year phase-in period and about $3 billion assistance to displaced workers, the harm to workers in low-income areas in the United States was minimized.

Free trade access to Mexico allows U.S. industries to import labor-intensive components from Mexico and keep other operations in the United States rather than possibly losing all jobs in the industry to low-wage countries. Some of the jobs that Mexico gained have not in fact come from the United States but from other countries, such as Malaysia, where wages are now roughly equal to Mexico's. As a condition for congressional approval of NAFTA, the United States also negotiated a series of supplemental agreements with Mexico governing workplace and environmental standards (to prevent U.S. firms from moving their operations to Mexico to take advantage of much more lax labor and environmental regulations), as well as to protect some American industries against import surges that might threaten them.

The implementation of NAFTA benefited Mexico by leading to greater export-led growth resulting from increased access to the huge U.S. market and by increasing inward foreign direct investments. Mexico suffered a net loss of jobs and incomes in agriculture, but these losses were more than matched by net increases in industry. With time, increasing employment opportunities and rising wages in industry are also expected to reduce the pressure for Mexicans to emigrate to the United States. Mexico's ability to benefit from NAFTA has been limited, however, by weak economic institutions and inadequate structural reforms of the economy (see Case Study 10-3).

In 1993, the United States launched the Enterprise for the American Initiative (EAI), which led to the formation of the Free Trade Area of the Americas (FTAA) in 1998, whose ultimate goal is hemispheric free trade among the 34 democratic countries of North and South America. Negotiations are proving to be difficult and are not expected to succeed anytime soon. Since 2001, the United States also signed free trade agreements (FTAs) with Australia, Bahrain, Chile, Jordan, Morocco, Oman, Peru, and Singapore. Also operational is the United States-Dominican Republic-Central American Free Trade Agreement (US-DR-CAFTA) with Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua, besides the Dominican Republic. Ratified in 2001 was the U.S. FTA with Korea, Panama, and Colombia. The United States is negotiating still other FTAs with other countries.

CASE STUDY 10-3 Mexico's Gains from NAFTA—Expectations and Outcome

Table 10.3 shows the long-run simulations results of NAFTA's impact on Mexico to the year 2005 and compares these to the actual outcome. During the 1995–2005 decade, Mexican real GDP was estimated to grow at a rate of 5.2 percent per year with NAFTA, as compared with 3.8 percent without NAFTA. Also, NAFTA was expected to (1) reduce the Mexican inflation rate from 14.5 percent to 9.7 percent per year and the short-term interest rate from 18.3 percent to 13.0 percent, (2) increase the inflow of foreign direct investments (FDI) from $6.0 billion to $9.2 billion per year and the growth of exports from 8.3 to 10.4 percent, and (3) raise the trade deficit from $9.7 billion to $14.9 billion and net financial inflows from $10.6 billion to $14.7 billion per year.

The actual results, as yearly averages from 1994 to 2005, were as follows: the average growth rate of real GDP of 2.8 percent per year, a rate of inflation of 13.9 percent, a short-term interest rate of 18.7 percent, an inflow of FDI $16.9 billion, a growth of exports of 9.2 percent, a trade deficit of $7.7 billion, and net financial inflows of $16.8 billion. The actual results for 1994 to 2008 were similar to those for 1994 to 2005 (see the last column of Table 10.3). Thus, we see that Mexico did not realize most of the expectations from NAFTA because of its deep economic crisis in 1995, because of the slow growth of the United States in 2001–2002, and, more importantly, because of weak economic institutions and inadequate structural reforms. If we removed from the data 1995 (the recession year in Mexico) and also 2001 and 2002 (the years of recession and slow growth in the United States, which reduced U.S. imports from Mexico), the average annual growth of real GDP in Mexico would be 4.5 percent for 1994–2005 and 4.1 for 1994–2008.

TABLE 10.3. NAFTA's Impact on the Mexican Economy (Yearly Averages: 1994–2005 and 1994–2008)

	Estimates with NAFTA	Without NAFTA	Difference	Actual Results 1994–2005	Actual Results 1994–2008
Growth of real GDP (%)	5.2	3.8	1.4	2.8	2.9
Inflation rate (%)	9.7	14.5	–4.8	13.9	12.0
Short-term interest rate (%)	13.0	18.3	–5.3	18.7	16.5
Inflow of FDI (billion USD)	9.2	6.0	3.2	16.9	18.2
Growth of exports (%)	10.4	8.3	2.1	9.2	8.4
Trade deficit (billion USD)	14.9	9.7	5.2	7.7	9.6
Net financial capital inflows (billion USD)	14.7	10.6	4.1	16.8	16.2

Sources: L. Klein and D. Salvatore, "Welfare Effects of the NAFTA," *Journal of Policy Modeling*, April 1995, pp. 163–176; G. C. Hufbauer and J. J. Schott, *NAFTA Revisited* (Washington, D.C.: Institute for International Economics, 2005); and "Measuring the Economic Effects of NAFTA on Mexico," *CEFifo Forum*, No. 4 Winter 2010, pp. 31–37.

In recent years, the EU and other countries have also been very active in signing FTAs. The EU has FTAs with Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia, and Turkey as part of an effort to create a Euro Mediterranean Free Trade Area (EMFTA). The EU also has FTAs with Norway and Switzerland; South Africa and South Korea; Chile, Colombia, Mexico and Peru; and with 12 other smaller nations, and is negotiating an FTA with Mercosur and the Gulf Cooperation Council (which includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates).

Japan has FTAs with ASEAN, India, Mexico, and Switzerland and is negotiating with still other countries. Canada has FTAs with the United States and Mexico (NAFTA) and the European Free Trade Association (EFA), as well as with Israel, Colombia, Costa Rica, Honduras, and Peru; and it is negotiating with other countries as well. By 2009, there were nearly 300 FTAs from just about 50 in 1990. Today, most countries belong to multiple FTAs. This spaghetti-bowl proliferation of bilateral and regional FTAs is regarded by some as a stumbling block to a freer multilateral trading system.

10.6D Attempts at Economic Integration among Developing Countries

The success of the EU encouraged many attempts at economic integration among groups of developing nations as a means of stimulating the rate of economic development. Most of these attempts, however, met with only limited success or failed. Examples are (the complete list of all RTAs is given in Appendix A10.2):

1. The *Central American Common Market (CACM)*, established by Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua in 1960, which was dissolved in 1969 and revived in 1990.
2. The *Latin American Free Trade Association (LAFTA)*, established in 1960 by Mexico and most of South America, and its subgroup (the Andean Community, formed by Bolivia, Chile, Colombia, Ecuador, Peru, and Venezuela in 1969), which hoped to accelerate the process of integration and establish a common market; in 1980, the LAFTA was superseded by the Latin American Integration Association (LAIA).
3. The *Southern Common Market (Mercosur)*, formed by Argentina, Brazil, Paraguay, and Uruguay in 1991. It was joined by Bolivia and Chile as associate members in 1996, Peru in 2003, and Colombia, Ecuador, and Venezuela in 2004. Venezuela is in the process of becoming a full member in 2012.
4. The *Free Trade Area of the Americas (FTAA)* established in 1998 with the goal of free trade among the 34 democratic countries of North and South America.
5. The *Caribbean Free Trade Association (CARIFTA)*, set up in 1968 and transformed into a common market *(CARICOM)* in 1973 with the membership of Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts-Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago.
6. The *East African Community (EAC)*, established in 1967 by Kenya, Tanzania, and Uganda.
7. The *West African Economic and Monetary Union (WAEMU)*, which includes Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo.
8. The 14-member *Southern Africa Development Community (SADC)*, extending from Angola, Botswana, the Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

9. The *Association of South East Asian Nations (ASEAN)*, which includes Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Myanmar, Thailand, and Vietnam, though primarily a political association, in 1977 decided that it would also move toward a common market.

These customs unions are (or were) to a large extent explicitly trade diverting to encourage industrial development. Perhaps the greatest stumbling block to successful economic integration among groups of developing nations is the uneven distribution of benefits among members. Since benefits are likely to accrue mainly to the most advanced nations in the group, lagging nations are likely to withdraw, causing the attempt at economic integration to fail. One way to avoid this difficulty is to provide investment assistance through industrial planning (i.e., assign some industries to each member nation). Although this tactic was tried in the Central American Common Market, the effort failed nevertheless and the union dissolved in 1969 (although, as noted earlier, it was revived in 1990).

Another difficulty is that many developing nations are not willing to relinquish part of their newly acquired sovereignty to a supranational community body, as is required for successful economic integration. Other difficulties arise from lack of good transportation and communication among member nations, the great distance that often separates members, and the basically complementary nature of their economies and competition for the same world markets for their agricultural exports. For these reasons, economic integration among developing countries cannot be said to have been very successful in most cases. One success story is Mercosur (see Case Study 10-4).

CASE STUDY 10-4 Economic Profile of Mercosur

Table 10.4 provides an economic profile of Mercosur or Southern Common Market, which was formed in 1991 by Argentina, Brazil, Paraguay, and Uruguay. Bolivia and Chile became associate members in 1996, Peru in 2003, and Colombia, Ecuador, and Venezuela in 2004. Venezuela became a full member in 2012. Mercosur was scheduled to become a custom union in 1995, but the process had not yet completed as of mid-2012. The table shows that in 2010 the

TABLE 10.4. Mercosur

Country	Population (millions)	GNI (billions)	GNI (per Capita)	Exports (billions)	Imports (billions)
Argentina	40.4	$343.6	$8,450	$68.2	$56.5
Brazil	194.9	1,830.4	9,390	201.9	191.5
Paraguay	6.5	19.0	2,940	4.5	10.0
Uruguay	3.4	35.6	10,590	6.7	8.6
Mercosur	245.2	2,222.8	9,081	281.3	266.6
U.S.	309.1	14,600.8	47,140	1,278.3	1,969.2
NAFTA	456.6	17,028.5	37,362	1,964.6	2,682.1
EU (27)	501.9	17,360.9	33,124	5,1533.2	5,356.0
Extra-EU (27)	—	—	—	1,788.1	1,990.9
Japan	127.5	5,369.1	42,150	769.8	694.1

Sources: World Bank, *World Development Report 2012* (Washington, D.C.: World Bank, 2012) and World Trading Organization, *International Trade Statistics* (Geneva: WTO, 2011).

(continued)

CASE STUDY 10-4 Continued

population of Mercosur was 245.2 million, gross national income (GNI) was $2,222.8 billion, average per capita GNI was $9,081, total merchandise exports were $281.2 billion, and imports were $266.6 billion.

Trade among Mercosur countries increased from $4.1 billion (8.9 percent of its total trade) in 1990 to $21.1 billion (12.9 percent of its total trade) in 2005, but according to a World Bank study (Yeats, 1998) a great deal of it seems to be have been trade diversion from more efficient producers outside the bloc. In January 1999, Brazil faced a deep economic and financial crisis and it devalued its currency (the real) very steeply. This encouraged Argentinean imports from Brazil, discouraged its exports, and made Argentina's recession even worse. In January 2002, Argentina was forced to devalue its currency in the face of complete economic, financial, and political collapse. All this strained relations between the two main members of Mercosur and even led to fears of its collapse. By 2003, however, growth had resumed and so did progress toward turning Mercosur into a common market.

Starting in 2003, Mercosur, under the leadership of Brazil, sought to negotiate a free trade agreement with the Andean Community of Nations, as well as with other South American nations, in order to increase its bargaining strength vis-à-vis the United States in pursuing free trade for all of the Americas under the Free Trade Area of the Americas (FTAA). Case Study 10-5 shows the changes in the patterns of trade with economic integration.

10.6E Economic Integration in Central and Eastern Europe and in the Former Soviet Republics

In 1949, the Soviet Union formed the Council of Mutual Economic Assistance (CMEA or COMECON) with the communist bloc nations in Eastern Europe (Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania) plus Mongolia (Cuba, North Korea, and Vietnam joined later). The purpose of this agreement was to divert trade from Western nations and achieve a greater degree of self-sufficiency among communist nations. Under this arrangement, most CMEA members imported oil and natural gas from the Soviet Union in exchange for industrial and farm products.

In CMEA member countries, the state decided and controlled all international transactions through a number of state trading companies, each handling some product line. Under such a system, the types and amounts of goods imported were determined by the requirements of the national plan over and above domestically available products (i.e., to close the gap in the "material balance"). The state then decided which goods to export in order to pay for the required imports. Political considerations played at least as important a role as economic considerations in such a trade, while comparative advantage and relative commodity prices did not have any direct role. In fact, these centrally planned economies (i.e, economies where prices are not determined by market forces but by government directives) generally emphasized self-sufficiency and tended to regard international trade as a necessary evil to close the material balance and obtain goods and services (such as high-technology products) that the nation could not supply for itself, or within the CMEA.

Trade among CMEA economies was generally conducted on the basis of bilateral agreements and bulk purchasing. Bilateral agreements often involved *barter trade* and

CASE STUDY 10-5 Changes in Trade Patterns with Economic Integration

Table 10.5 shows the value of total merchandise exports, intra-regional-trade-agreement (RTA) exports, and intra-RTA exports as a percentage of the total RTA exports of the EU, NAFTA, and Mercosur in 1990, 1995, 2000, 2005, and 2010. The table shows that the EU has the largest percentage of intra-RTA trade and Mercosur has the smallest. However, intra-RTA trade grew faster in Mercosur between 1990 and 1995 (i.e., in the four years after its creation in 1991) and in NAFTA from 1995 to 2000 (i.e., after its creation in 1994). Intra-Mercosur trade as a percentage of its total trade was 12.9 in 2005 and 15.6 in 2010, down from 20.1 in 2000, because of the economic crisis in Brazil and Argentina between 2001 and 2002. By 2003, however, intra-Mercosur trade had resumed its growth.

TABLE 10.5. Total and Intra-EU, NAFTA, and Mercosur Merchandise Exports in 1990, 1995, 2000, 2005, and 2010 (in billions of dollars and percentages)

EU Exports (in billion dollars)			
Year	Total	Intra-EU	Intra-EU as Percentage of Total
1990 (EU-15)	$1,482.4	$ 979.7	66.1
1995 (EU-15)	1,936.8	1,295.3	66.9
2000 (EU-15)	2,251.0	1,392.3	61.9
2005 (EU-27)	4,065.9	2,755.6	67.8
2010 (EU-27)	5,153.2	3,365.1	65.3
NAFTA Exports (in billion dollars)			
Year	Total	Intra-NAFTA	Intra-NAFTA as Percentage of Total
1990	$ 561.9	$239.6	42.8
1995	856.5	394.3	46.0
2000	1,224.9	681.6	55.6
2005	1,475.8	824.6	55.9
2010	1,964.6	955.7	48.6
Mercosur Exports(in billion dollars)			
Year	Total	Intra-Mercosur	Intra-Mercosur as Percentage of Total
1990	$ 46.4	$ 4.1	8.9
1995	70.5	14.5	20.5
2000	84.6	17.7	20.1
2005	164.0	21.1	12.9
2010	281.3	43.9	15.6

Source: World Trade Organization, *International Trade Statistics* (Geneva: WTO, 2011).

countertrade, in which one good was exchanged for another, or at least the attempt was made to balance trade with each nation individually. The reason was that any surplus of "convertible" rubles (the unit of account in CMEA trade) could not be spent to import goods and services from any nation other than the one from which the surplus was accumulated.