The United States in a New Global Economy?

International trade has become an integral part of the U.S. economy over the past few decades. The United States imports toys from China, clothing from Costa Rica, and steel from Korea, and exports aircraft from Washington, wheat from Kansas, and machinery from Illinois. There is hardly a sector of the economy or a region of the country that is unaffected by international markets. As the twenty-first century begins, the United States may even have achieved a historically unprecedented degree of economic integration with the rest of the world. Perhaps it is not surprising, therefore, that the rapid growth of trade has been accompanied by a intensified debate over U.S. trade policy. To establish a context in which we can later examine current trade policy, this chapter briefly looks at the role of trade in the U.S. economy.

The Increasing Importance of Trade

How important is trade to the U.S. economy? The simplest way to answer this question is to look at its share in gross domestic product (GDP). In 2000, for example, merchandise exports amounted to about $773 billion, about 7.8 percent of GDP. At the same time, merchandise imports were about $1,223 billion, about 12.3 percent of GDP.¹

By looking at these numbers in a historical perspective, we can determine whether they are high or low. Figure 1.1 presents U.S. mer-

¹ Joint Economic Committee and Council of Economic Advisers, Economic Indicators, April 2001. This standard indicator measures the numerator and denominator differently. Trade is measured as the gross value of goods crossing the border, while GDP is a value-added measure of goods and services produced in the country.

As the figure shows, merchandise trade was fairly stable at about 7 percent of GDP in the period just after the Civil War until the outbreak of World War I in 1914. Exports surged during the war, but the trade shares declined sharply during the interwar period from 1919 to 1939 and on through World War II. Between the world wars, many countries pursued inward-looking economic policies, including protectionist trade policies, restrictions on international labor migration, and limitations on international capital flows. These policies substantially reduced world economic integration. Many of these restrictions were relaxed after World War II, and thus in some sense the United States has gone back to the future, returning to the degree of integration that prevailed before World War I. Exports and imports were higher after World War II than before the war, but were then stable until they began to rise steadily in the early 1970s.

Economists have interpreted these data in two conflicting ways. One interpretation, that trade is about as important now as it was a cen-
tury ago (the “fin de siècle déjà vu” view) points out that merchandise exports stood at about 7 percent of GDP in the late nineteenth century and are about 8 percent now, hardly a dramatic difference. A second interpretation (the “new global economy” view) stresses that the rapid rise in trade’s share of GDP since the mid-1970s has put trade at a level unprecedented in recent history. A second interpretation better identifies the crucial trends in trade.

Will the current trend toward a higher trade share continue? There is certainly no law in economics that dictates an inexorable rise in the ratio of trade to GDP over time. In fact, many economists, from Robert Torrens in the early nineteenth century to Dennis Robertson in the mid-twentieth century, have expounded a “law of diminishing international trade.” They believed that the spread of industrial technology around the world would result in smaller differences in industrial efficiency across countries. Each country would eventually come to produce manufactured goods just as efficiently as any other, and so international trade would diminish. But this theory has been proven false: over time, the division of labor in manufacturing and in other sectors has become more refined, increasing trade even between those countries with similar technology. For example, the spread of industrial technology has enabled an increasing number of countries to produce automobiles. Rather than reducing international trade in cars, this development has increased trade in automobiles, especially in parts and components.

A more plausible version of the idea of diminishing international trade is that the trade share would fall as countries grew richer because the composition of demand would shift away from traded goods (such as food, clothing, and manufactures) toward nontraded goods (such as housing, health care, education, and other services). And to some extent, this has taken place in the United States: the share of personal consumption expenditures devoted to services has risen steadily in recent decades at the expense of expenditures on durable and nondurable goods. This evolution of demand has contributed to a shift in the composition of

---

1 Bordo, Eichengreen, and Irwin (1999) compare global integration now and a century ago and conclude that, despite similarities, the current period exhibits much greater integration.

2 Furthermore, international differences in technology have not narrowed over time but have widened. See Clark and Feenstra 2002.
the U.S. economy away from the production of merchandise goods toward the production of services. (The more rapid productivity growth in goods-producing sectors, which has reduced the price of goods relative to services, has also contributed to this result.) As a result, the traded-goods sectors of the economy—specifically, agriculture, mining, and manufacturing—have declined from 33.5 percent of current-dollar GDP in 1960 to 18.7 percent in 1999.4 Other mostly nontraded sectors of the economy, such as transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and government have grown more rapidly than the traded-goods sectors.

Even though the merchandise goods share of the economy has fallen, the merchandise trade share has not. The gradual rise in the share of merchandise trade to GDP therefore masks the vastly increased importance of trade within the traded-goods sector. This is seen most strikingly by comparing merchandise exports as a share of merchandise production rather than merchandise exports to total GDP. As figure 1.2 indicates, merchandise exports as a share of merchandise production soared from about 15 percent in 1970 to nearly 40 percent in 1999, while the share relative to GDP has changed only modestly. This implies that the increase in the size of the nontraded sector can sharpen the degree to which countries specialize in the traded-goods sector and therefore increase trade.5 Thus, a close analysis of the merchandise trade figures indicates that trade is substantially more important now than in the recent past for those sectors engaged in trade.6

The rise in trade relative to production is also evident in the case of specific commodities. Table 1.1 compares exports as a share of domestic output and imports as a share of total supply (domestic output plus imports minus exports) for selected commodities in 1960 and 1993. Both the share of domestic production shipped to other markets and the ratio of imports to domestic consumption are much more pronounced

---

5 This is precisely what the analysis of Flam (1985) predicted.
6 See Irwin 1996a. Feenstra (1998) shows that this same trend is evident in other OECD countries as well. As described in note 1, the export figures are measured on the basis of gross value, while the production data (for agriculture, mining, and manufacturing) from the national income accounts are based on value-added data. It would be therefore incorrect to say that about 40 percent of U.S. merchandise production was exported in 1999.
today than just a few decades ago, especially for perishable products, which only recently have become traded internationally.

Two final points should be made about U.S. merchandise trade. First, the composition of both exports and imports has shifted toward manufactured goods over the past few decades. Table 1.2 presents the commodity composition of these exports and imports. The United States is a net exporter of agricultural commodities and a net importer of fuels. But the overwhelming majority (about 80 percent) of both exports and imports are manufactured goods. Of course, they are different types of manufactured goods. The leading manufactured exports consist of machinery (electrical, general industrial, power generating, and scientific), office equipment, airplanes and parts, chemicals, and televisions and VCRs. The major types of manufactured imports also include machinery, televisions, and VCRs, but also clothing, iron and steel mill products, toys and sporting goods, and footwear.

Second, most of this trade in manufactured goods is not in final consumer goods, but rather in intermediate components and parts. The Department of Commerce provides a closer look at the imports when it attempts to classify them based on final actual use. Table 1.3 shows this end-use classification of U.S. imports for three categories: consumer
### Table 1.1

**U.S. Exports and Imports of Perishable and Nonperishable Commodities as a Share of Domestic Output or Consumption**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>1960 Exports</th>
<th>1993 Exports</th>
<th>1960 Imports</th>
<th>1993 Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perishable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grapes</td>
<td>10</td>
<td>1</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Broccoli</td>
<td>25</td>
<td>2</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>Tomatoes</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Oranges</td>
<td>8</td>
<td>n.a.</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Strawberries</td>
<td>11</td>
<td>31</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>Flowers and plants</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td><strong>Nonperishable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>41</td>
<td>1</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>Wheat</td>
<td>36</td>
<td>0</td>
<td>63</td>
<td>3</td>
</tr>
<tr>
<td>Meat products</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Coal</td>
<td>17</td>
<td>0</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Cotton fabrics</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Leather footwear</td>
<td>0</td>
<td>2</td>
<td>38</td>
<td>90</td>
</tr>
<tr>
<td>Pulp mill products</td>
<td>27</td>
<td>33</td>
<td>49</td>
<td>28</td>
</tr>
<tr>
<td>Blast furnace products</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Radios, televisions, stereos, etc.</td>
<td>5</td>
<td>2</td>
<td>34</td>
<td>64</td>
</tr>
<tr>
<td>Machine tools</td>
<td>17</td>
<td>3</td>
<td>33</td>
<td>40</td>
</tr>
<tr>
<td>Passenger cars</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>40</td>
</tr>
</tbody>
</table>


*Note: Exports are expressed as a percentage of domestic shipments. Imports are expressed as a percentage of domestic consumption (domestic shipments minus exports plus imports).*

### Table 1.2

**Composition of U.S. Trade, by Category of Commodity, 1960, 1980, 2000 (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Food, animals, etc.</td>
<td>16</td>
<td>23</td>
<td>14</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Crude materials</td>
<td>16</td>
<td>20</td>
<td>12</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Mineral fuels</td>
<td>2</td>
<td>11</td>
<td>4</td>
<td>33</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Chemicals and manufactured goods</td>
<td>32</td>
<td>36</td>
<td>31</td>
<td>30</td>
<td>36</td>
<td>38</td>
</tr>
<tr>
<td>Machinery and transport equipment</td>
<td>35</td>
<td>10</td>
<td>39</td>
<td>25</td>
<td>53</td>
<td>45</td>
</tr>
</tbody>
</table>


*Note: Commodities are grouped by SITC category. Columns may not total 100 percent because of rounding.*
Table 1.3
U.S. Imports by Principal End-Use Category (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumer Goods</th>
<th>Industrial Materials and Supplies</th>
<th>Capital Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>38</td>
<td>61</td>
<td>1</td>
</tr>
<tr>
<td>1960</td>
<td>42</td>
<td>52</td>
<td>4</td>
</tr>
<tr>
<td>1970</td>
<td>53</td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td>1980</td>
<td>24</td>
<td>52</td>
<td>25</td>
</tr>
<tr>
<td>1990</td>
<td>30</td>
<td>29</td>
<td>41</td>
</tr>
<tr>
<td>2000</td>
<td>30</td>
<td>25</td>
<td>45</td>
</tr>
</tbody>
</table>


Note: Consumer goods include foods, feeds, and beverages, assembled automobiles, and consumer durables and nondurables; industrial supplies and materials include crude and processed materials such as fuels and lubricants, paper, building materials, and the like, and capital goods include machinery, equipment, apparatuses, instruments, as well as parts, components, and accessories, including automobile engines, and parts.

goods, industrial supplies and materials, and capital goods. The most striking change is the rise of capital goods as a share of U.S. imports, especially since 1970. Capital goods include machinery, equipment, instruments, parts, and various other components to production. Over half of all imports are either intermediate components or raw materials. These imports are sold as inputs to domestic businesses rather than as goods consumed directly by households. As chapter 3 will explain, this fact has important implications for trade policy: protectionist policies will directly harm employment in other domestic industries by raising their production costs, in addition to forcing consumers to pay a higher price for the products they buy.

Though trade is more important than ever for the merchandise-producing sector, this is not necessarily the case for the overall economy. Production and employment have become much more based on nontraded services. In fact, only about 17 percent of American workers, those employed in agriculture, mining, and manufacturing, are directly exposed to international competition today, as opposed to 40 percent in 1960.\(^7\) This means that a smaller part of the U.S. economy, in terms of output and employment, is directly affected by fluctuations in world trade.

At the same time, many previously nontraded services are now becoming more tradable. The major categories of services trade include shipping and tourism, royalties and fees (receipts from intellectual prop-
perty rights, such as trademarks, patents, and copyrights), and military transfers. The most rapidly growing category of U.S. service exports are those listed as "other private services," which include education, finance, insurance, telecommunications, and business, professional, and technical services. In 2000, the value of these U.S. service exports (excluded from the merchandise trade figures considered so far) amounted to about $310 billion, nearly 40 percent of the value of merchandise exports. The United States is a large net exporter of services, having only imported $219 billion in 2000.

The addition of trade in services has raised the overall economic significance of trade. In 2000, the broader figure of exports of goods and services as a portion of GDP stood at 11.0 percent, of which merchandise exports were 7.9 percent and service exports were 3.1 percent. (In 1970, by contrast, service exports were only about 1 percent of GDP.) Also in that year, imports of goods and services stood at 14.7 percent of GDP, of which merchandise imports were 12.5 percent and service imports were 2.2 percent. As in the case of merchandise, service exports have risen as a share of services production. In 1960, the ratio of service exports to services value-added was 1.7 percent, but by 1999 that ratio had risen to 5.5 percent. While small in comparison to the merchandise sector, this ratio has been rising rapidly and portends even greater trade in services in the future.

Yet even services that are not subject to trade are increasingly subject to international competition. This is because direct investments enable U.S. firms to enter foreign markets directly and allow foreign service providers to compete in the U.S. market. U.S. direct investment abroad increased from 6 percent of GDP in 1960 to 20 percent in 1996, and much of this investment was in the service sector. For example, in the 1990s the University of Chicago's Graduate School of Business built small campuses in Barcelona and Singapore to bring education services directly to Europeans and Asians who are not able to come to Chicago. Similarly, foreign direct investment in the United States increased from 1 percent of GDP in 1960 to 16 percent in 1996. For example, many foreign banks have established a presence in the U.S. market to provide financial services. In addition, domestic service firms are increasingly the

target of mergers and acquisitions as foreign firms seek entry into the U.S. market. As an indication of the increased foreign presence in the U.S. economy, the foreign-owned affiliates’ share of gross product originating in private industry in the United States increased from 2.3 percent in 1977 to 6.3 percent in 1998.9

As a result, firms have a choice in how they can sell products to foreign residents: either by exporting domestically produced goods, or by producing and selling directly in the foreign country. This gives us another way to look at international commerce. In 1998, U.S. companies sold $933 billion worth of goods to foreign consumers through exports and $2,810 billion through foreign affiliates. Meanwhile, foreign companies sold $1,100 billion to U.S. consumers through exports to the United States and $1,710 billion through sales by foreign-owned U.S. affiliates. Thus, worldwide sales by U.S. companies to foreign nationals exceeded sales by foreign companies to U.S. residents by $363 billion in that year.10

Trade and the Fragmentation of Production

Is the recent rise in the trade share misleading? The increased trade in intermediate components requires that we ask this question. Every time a component is shipped across a border, it gets recorded by customs officials as an export or an import. When components are repeatedly shipped across the border at different stages of production, the official recorded value of trade rises with each crossing, but there may be no more final goods output than before. Thus, the value of trade relative to production may be inflated if intermediate products cross national borders multiple times during the production process. For example, about 60 percent of U.S. auto exports to Canada are engines and parts, whereas 75 percent of U.S. auto imports from Canada are finished cars and trucks.11 The increase in automobile trade between the United States, Canada, and other countries does not itself indicate that more and more cars are being built; rather, various parts and components that used to be

---

9 See Bordo, Eichengreen, and Irwin 1999, 11; and Zeile 2000.
11 Hummels, Rapoport, and Yi 1998, 84.
produced domestically are now produced in other countries and traded across international borders.

This phenomenon is known as vertical specialization. Vertical specialization refers to the fragmentation of the production process as intermediate goods and components become a greater part of world trade. According to one estimate, vertical specialization accounts for about a third of the increase in world trade since 1970.\textsuperscript{12}

As the Canadian example suggests, a nonnegligible portion of the value of U.S. imports is simply the value of U.S. exports of domestically produced components that are shipped abroad for further processing or assembly and then returned to the United States for additional work before sale or export. Imports that incorporate U.S.-made components are often given duty-free or reduced-duty treatment under the “production sharing” provision of the tariff code.\textsuperscript{13} In 1998, imports entering the United States under the production-sharing provision amounted to $74 billion, or 8.2 percent of total merchandise imports.\textsuperscript{14} The value of U.S.-produced components in these imports was $25 billion, or 34 percent of the total value of imports entered under this provision. In other words, at least 3 percent of the value of U.S. imports actually represents the value of domestic products that have been exported and then returned to the United States.

This figure is a particularly striking aspect of U.S. trade with Mexico. In 1998, the United States imported $93 billion in goods from Mexico. Of this, $27 billion (36 percent) entered under the production-sharing provision, and $14 billion represented the U.S. content of these imports. Thus, 57 percent of the value of goods that entered under the production-sharing provision actually reflects the value of U.S.-made components.

These official figures significantly understate the magnitude of production sharing in U.S. trade. A majority of imports from Canada and

\textsuperscript{12} Hummels, Ishii, and Yi 2001. See also Jones 2000.

\textsuperscript{13} This provision of the tariff (chapter 98 of the Harmonized Tariff Schedule) dates back to 1964 and was designed to enable U.S. companies to reduce their costs by outsourcing labor-intensive assembly operations to neighboring countries, and thereby compete more effectively against European and Japanese companies, which take advantage of lower labor costs in Eastern Europe and Asia for assembly operations.

\textsuperscript{14} The statistics in this paragraph come from the U.S. International Trade Commission (1999b).
Mexico incorporate U.S.-made parts but no longer enter the United States under the production-sharing provisions of the tariff code because they are already eligible for duty-free treatment under NAFTA. Nearly a third of U.S. imports from Canada, Mexico, and the Caribbean Basin consisted of motor vehicles, televisions, and apparel, the sectors in which production-sharing or outsourcing arrangements are extensive. This tariff provision, along with communication and transportation technology, has significantly deepened cross-border integration in North America and the Caribbean Basin, enabling firms to subcontract some operations to neighboring countries.

Such production sharing and outsourcing means that it is becoming difficult to determine the true origin of any particular product. For one particular car produced by an American manufacturer, for example, 30 percent of the car’s value is due to assembly in Korea, 17.5 percent due to components from Japan, 7.5 percent due to design from Germany, 4 percent due to parts from Taiwan and Singapore, 2.5 percent due to advertising and marketing services from Britain, and 1.5 percent due to data processing in Ireland. In the end, 37 percent of the production value of this American car comes from the United States.15 Similarly, one type of Barbie doll is manufactured with $0.35 in labor from China, $0.65 in materials from Taiwan, Japan, the United States, and China, $1.00 in overhead and management from Hong Kong. The export value from Hong Kong is $2.00, and, after shipping, ground transportation, marketing, and wholesale and retail profit, the doll is sold in American stores at $9.99.16 Such specialization may account for the fact that world trade has grown much more rapidly than world output.

This outsourcing phenomenon is only partly related to the role that multinational firms have played in international trade during the postwar period. A significant part of U.S. trade is simply the exchange of goods between affiliated units of a multinational company: in 1994, such “intrafirm” transactions accounted for 36 percent of U.S. exports of goods and 43 percent of U.S. imports of goods.17 However, this share has not changed much since the late 1970s, when the Commerce Department started collecting data. In fact, the share of U.S. trade accounted for by

16 Tempest 1996.
17 Zeile 1997.
multinationals has declined significantly. The overall share has been stable only because the intrafirm-share of the multinationals’ trade has increased.

Thus, by simply looking at the sheer volume of goods leaving and entering the country, one can say that the United States engages in significantly more international trade today than in the recent or distant past. But the statistics on trade can also be misleading because a final good may be produced with inputs that cross national borders multiple times, each time getting recorded as an export or an import.

Why Is Commercial Integration Greater Today?

International trade has increased rapidly during the postwar period, particularly in the last two decades. What accounts for this growth in trade? One simple answer is that the costs previously inhibiting trade, and preventing exchanges from taking place, are now lower than before. These impediments to trade include transportation costs, transactions costs, and government policies.

Although the expansion of international trade in the late nineteenth century was propelled by a significant decline in shipping costs, the postwar period has apparently not experienced a comparable reduction in the costs of moving goods between markets.18 Yet such costs have remained low and have changed in qualitative ways. Technological innovations have expanded the array of delivery mechanisms. Containerization, bulk shipping, and other innovations have cut loading times and resulted in more efficient transportation. The rise of air transport as a means of moving goods between countries has cut delivery times in ways that have brought an ever-increasing variety of perishable goods (cut flowers from Central America, lobsters from Maine) into world commerce.19 According to one estimate, each day saved of shipping time is worth 0.5 percent of the value of the products. Trade in intermediate

---

18 Hummels 1999.
19 The share of U.S. imports that arrives via air has risen from about 9 percent in 1974 to nearly 20 percent in 1996. Similarly, nearly a third of U.S. exports (including aircraft) leave via air. Shipping via air has been largely a postwar phenomenon and has seen substantial cost reductions. Hummels (1999) finds that air cargo rates on long-distance routes have declined by about 15–20 percent (when deflated by U.S. import price index) over the 1975–95 period.
goods is the most time sensitive, and over the past fifty years faster methods of transport are equivalent to reducing tariffs from 20 percent to 5 percent.20

Other transactions costs are harder to quantify, but are lower in potentially important ways. These transactions costs are any expense that must be incurred to bring about exchange. The costs of acquiring information, for example, can limit the extent of market integration. A century ago, before the age of mass communications, obtaining information about distant markets was more difficult than today. Producers are now more likely to have better information about local tastes and demands than they did in the past, which makes them able to service demand in those markets more efficiently. In addition, consumers used to have good information only about the attributes of locally produced goods, but now they are likely to be equally as informed about the products of foreign firms.

Trade has also expanded because government trade restrictions have been reduced. Tariffs, import quotas, and exchange controls that originated in the interwar period have been gradually relaxed in the decades after World War II. Average tariffs on manufactured goods dropped from roughly 40 percent to less than 5 percent in most developing countries over the postwar period. Furthermore, whole geographic areas, such as Western Europe and North America, have abolished customs duties and become free-trade areas. Although some nontariff measures have been adopted to protect domestic producers from import competition, it is nonetheless true that overall trade barriers have fallen substantially over the postwar period.

Quantifying the precise contribution of these factors in the rapid growth in world trade is difficult. One study finds that about two-thirds of the postwar growth in the trade of countries belonging to the Organization for Economic Cooperation and Development (OECD) is due to income growth, a quarter to tariff reductions, and about 10 percent to transportation cost reductions.21 This calculation, however, does not take into account production sharing or vertical specialization.

Even though world economic integration has increased rapidly

---

20 Hummels 2000.
21 Baier and Bergstrand 2001.
in recent decades, the world remains far from fully integrated. Within-
country trade dominates between-country trade by an order of magni-
tude, suggesting that there is a strong “home bias” in the pattern of trade. The United States is more integrated with the rest of the world than in the recent past, but we are far from the point at which trade between New York and Rio de Janeiro is carried on as easily as trade between New York and Los Angeles.

One economist has used the following analogy to illustrate how far we are from perfect trade integration: if Americans were just as likely to purchase goods and services from foreign producers as from domestic producers, then the U.S. import-to-GDP ratio should equal the non-U.S. share of world GDP. In other words, the United States would spend as much on foreign products as the average foreign resident, or roughly 75 percent, which is about the non-U.S. share of world GDP. Since the current trade share is about 12 percent, while that hypothetical trade share would be 75 percent, one can conclude that we are only about one-sixth of the way to the point at which “it would literally be true that Americans did business as easily across the globe as across the country.”

Empirical models of bilateral trade (the so-called gravity equa-
tions) show that there are numerous factors that shape international trade: distance between countries; geographic location; language, currency, and political ties; and so on. In these empirical models, the mere presence of a national border acts as a powerful impediment to international trade. The implication is that even when countries share a common language and a common border, similar institutions and a similar culture, the mere existence of a national border creates a significant bias in favor of intranational trade as opposed to international trade even if trade barriers are low.

---

22 Frankel 2000.
23 The most dramatic illustration of this effect is McCallum’s (1995) study of trade flows between Canadian provinces and the United States. McCallum examined unique data that allowed him to compare trade between Canadian provinces and American states in 1985. He found that two Canadian provinces trade more than twenty times (2,200 percent) as much with each other than do a Canadian province and an American state, controlling for other factors such as distance, population, and economic size. More recent research has shown that taking the border effect from the perspective of the smaller economy exaggerates the impact of the border. Anderson and van Wincoop (2001) examine the border effect from the perspective of the United States and finds that it implies about a 45 percent drop in trade, after controlling for other factors.
Public Views on Globalization: The Trade Policy Controversy

What are the views of the American public on the “globalization” of the U.S. economy in general and on trade policy in particular? According to an exhaustive survey carried out by the University of Maryland’s Program on International Policy Attitudes in 1999, Americans broadly favor global economic integration. A majority of 61 percent believe that the U.S. government should either “actively promote” globalization (28 percent) or “allow it to continue” (33 percent). Only 26 percent favored trying to “slow it down,” and just 9 percent favored trying to “stop or reverse it.” There is also strong public support for international trade. According to one, fairly representative poll taken in 1996, nearly 70 percent of Americans believe that trade is good for the U.S. economy.24

This support even carries over to reciprocal trade liberalization. In the University of Maryland study, when asked if the United States should reduce its trade barriers on goods from another country that lowers its trade barriers on U.S. exports, 64 percent of those polled agreed, while 29 percent disagreed. A strong majority also favor giving poor countries preferential access to the U.S. market and strengthening the World Trade Organization.

When the public is asked about specific trade policy initiatives, however, public support is considerably lower. The public is much more divided over NAFTA, normalized trade relations with China, and fast-track negotiating authority for the president than it is over international trade in general. Skepticism about trade initiatives is driven by the perception that businesses benefit more than workers from these trade agreements, leading to an increasing gap between rich and poor in the United States. While those in the University of Maryland survey were deeply skeptical about using trade barriers to protect workers from foreign competition, they gave overwhelming support to the idea of helping workers adjust to import competition through government programs for education and worker retraining. When asked whether measures protecting the environment and labor standards should be a part of trade agreements, nearly 80 percent of respondents answered yes.

These general findings were consistent across almost all demo-

24 See Kull 2000; and Scheve and Slaughter 2001a.
graphic and socioeconomic categories. The greatest variation in responses was linked to years of formal education: individuals with at least some college education were much more likely to have positive attitudes about globalization and trade than those with a high school degree only. As we will see in chapter 3, this association could arise because individuals with less education are more likely to be employed in sectors that compete against imports, whereas those with greater education are likely to benefit from increased trade.

Public opinion polls, therefore, reveal the following dichotomy: there is a willingness to accept increased international trade driven by the anonymous force of technology, but a hesitation to support integration driven by specific policy initiatives. Even though economists have not untangled the precise degree to which recent trade integration has been technology-driven or policy-driven, the public appears to view this distinction as important. This is consistent with the finding that the public appears to care about jobs destroyed because of imports, but not care as much about jobs destroyed due to the invisible hand of technological change.

This divergence, support for trade in the abstract and skepticism about trade policy in the particular, gets to the root of the controversy over free trade. Trade policy has always been contentious, but trade policy has come to involve complex economic, political, and legal factors, making it increasingly difficult to understand. This book aims to examine how these factors affect U.S. trade policy. The appropriate place to begin is with the economic case for free trade.

25 Political affiliation and region made little difference in the responses. Women were slightly more skeptical of the benefits of free trade and more sensitized to its costs than men; younger people were more positive about globalization and trade than older people; and minorities had a somewhat better view of trade than nonminorities (Kull 2000, 61–70).

26 Kull (2000) reports this finding, and Scheve and Slaughter (2001a) provide a more detailed analysis.