The Controversy Over Free Trade: The Gap Between Economists and the General Public

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In contrast to their divergent opinions on many public-policy issues, most economists strongly support free trade policies. Nonetheless, there is substantial public opposition for such policies—from the right as well as the left ends of the political spectrum. Because public opinion affects policy decisions, understanding why this gap exists is a first step in devising strategies to increase public support for free trade.[1] In light of arguments and evidence indicating that free trade yields substantial benefits, attempts to influence public opinion seem warranted.

In the next section I report survey information highlighting the gap between the views of economists and the general public on free trade policies. The primary focus of this paper is on the "whys" of this gap in the United States. After examining why most economists support free trade policies, I explore why free trade is controversial. To ensure that this discussion about controversial issues is of a reasonable length, I focus on trade arguments involving either labor or environmental issues. Next, I examine suggestions for increasing the support for free trade. A summary of key points completes the paper.

DIFFERING VIEWS ON FREE TRADE POLICIES

Surveys have consistently shown strong support among economists for free trade policies. In a 1990 survey of economists employed in the United States, Alston, Kearl, and Vaughan (1992) reported that more than 90 percent agreed generally with the proposition that tariffs and import quotas usually reduce general economic welfare.[2] This consensus mirrored the results of a similar survey in 1976.[3] Obviously, the 1990 results are now more than a decade old, but no compelling reason exists to expect that a similar survey today would yield substantially different results. In fact, Mayda and Rodrik (2001, p. 1) recently stated: "The consensus among mainstream economists on the desirability of free trade remains almost universal."[4]

On the other hand, the general public is not as strongly in favor of reducing trade barriers as economists. Based on answers to a question in a survey by the Chicago Council on Foreign Relations, it is clear that the general public in the United States has major reservations about free trade.[5] In response to a question in 1998 pointing out that the elimination of tariffs and other import restrictions would lead to lower prices but that certain jobs in import-competitive industries would likely be eliminated, only 32 percent of the general public were in favor of eliminating tariffs in this case. Meanwhile, 49 percent were more sympathetic to the argument that tariffs are necessary to protect jobs.[6]

Survey results presented in Scheve and Slaughter (2001a) suggest that Americans recognize both the benefits and costs of international trade. Large majorities of Americans think that freer trade generates benefits in terms of lower prices, increased product variety, and more innovation. On the other hand, a majority of Americans think that trade results in fewer jobs and lower wages for some segments of the labor force. Relative to economists, however, survey respondents tend to emphasize the costs rather than the benefits. For example, the 1999 Program on International Policy Attitudes survey asked whether free trade was a good idea because it could lead to lower prices and faster growth or a bad idea because it could lead to lower wages and lost jobs (University of Maryland, 2000). Survey respondents were nearly evenly divided, with 51

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[1] See Blendon et al. (1997) for references showing that public opinion influences policy decisions.

[2] A sample of 1,350 economists employed in the United States was used. Each recipient was asked to indicate general agreement, agreement with provisos, or general disagreement with 40 propositions. The number of respondents was 464, a response rate of 34.4 percent.

[3] See Kearl et al. (1979) for details of this earlier survey.

[4] See Krugman (1997) for a similar opinion.

[5] See Rielly (1999).

[6] The remaining 19 percent either did not have an opinion or refused to answer.

percent saying free trade was a good idea and 44 percent saying it was a bad idea. Five percent did not know or refused to answer.

WHY ECONOMISTS SUPPORT FREE TRADE POLICIES

Underlying the consensus among economists on the desirability of free trade is the judgment that nations are better off with free trade than with policies restricting trade.[7] Trade can affect a nation's income and its economic well-being through numerous channels. For example, the reduction of trade barriers allows for gains stemming from (i) specialization and exchange according to comparative advantage, (ii) increasing returns to scale from larger markets, (iii) the exchange of ideas through communication and travel, and (iv) the spread of technology by means of investment and exposure to new goods. Numerous models have been developed that show how a nation benefits from free trade. Rather than discuss numerous models, I examine the key ideas that economists stress when discussing the gains from trade. I complete this section by discussing some studies that measure the gains/losses that are likely to accompany specific trade policies.

The Gains from Trade: A Historical View[8]

The most famous demonstration of the gains from trade appeared in 1817 in David Ricardo's *Principles of Political Economy and Taxation*. In his example, England and Portugal produce the same two goods, wine and cloth, and the only production costs are labor costs. The amount of labor (e.g., worker-days) required in each country to produce one bottle of wine or one bolt of cloth is listed below.

	Wine	Cloth
England	3	7
Portugal	1	5

Because both goods are more costly to produce in England than in Portugal, England is absolutely less productive in producing both goods than its prospective trading partner. Portugal has an absolute advantage in both wine and cloth. Intuitively, one might be inclined to conclude that absolute advantage eliminates the possibility of mutual gains from trade. Thus, a high productivity (i.e., high income) country could not engage in mutually beneficial trade with a low productivity (i.e., low income) country. Productivity is crucial in determining wages. In view of absolute advantage, workers in the country with higher productivity will receive higher wages. However, absolute advantage is irrelevant in whether trade can benefit both countries.

What is crucial is that the ratio of the production costs for the two goods is different in the two countries. In England, a bottle of wine will exchange for 3/7 of a bolt of cloth because the labor content of the wine is 3/7 of that of cloth. In Portugal, a bottle of wine will exchange for 1/5 of a bolt of cloth. Thus, wine is relatively cheaper in Portugal than in England and, conversely, cloth is relatively cheaper in England than in Portugal. Economists say that Portugal has a comparative advantage in wine production and England has a comparative advantage in cloth production.

The different relative prices provide the basis for both countries to gain from international trade. The gains arise from both *exchange* and *specialization*.

The gains from *exchange* can be shown in the following manner. If a Portuguese wine producer sells five bottles of wine at home, he receives one bolt of cloth. If he trades in England, he receives more than two bolts of cloth for five bottles of wine. Hence, he can gain by exporting his wine to England. English cloth producers are willing to trade in Portugal; for every 3/7 of a bolt of cloth they sell there, they receive just over two bottles of wine, which is better than the one bottle of wine they would receive in England. Overall, the English gain from exporting cloth to (and importing wine from) Portugal, and the Portuguese gain from exporting wine to (and importing cloth from) England. Each country gains by exporting the good in which it has a comparative advantage and by importing the good in which it has a comparative disadvantage.

Gains can also arise from *specialization*. Assume initially that each country is producing some of both goods. Suppose that, as a result of trade, 21 units of labor are shifted from wine to cloth production in England and that 10 units of labor are shifted from cloth to wine production in Portugal. This reallocation of labor does not change the total amount of labor used in the two countries; however, it causes the production changes listed on the next page:

[7] Irwin (1996, p. 8) summarizes the history of this consensus as follows: "The case for free trade has endured, however, because the fundamental proposition that substantial benefits arise from the free exchange of goods between countries has not been overshadowed by the limited scope of various qualifications and exceptions."

[8] The bulk of this section appeared in Coughlin, Chrystal, and Wood (1988).

	Bottles of Wine	Bolts of Cloth
England	–7	+ 3
Portugal	+ 10	–2
Net	+ 3	+ 1

The shift of English labor causes cloth production to increase by three bolts and wine production to decline by seven bottles. Meanwhile, the shift of Portuguese labor causes cloth production to decrease by two bolts and wine production to increase by ten bottles. Overall, the production of both goods increases. This increased output of three bottles of wine and one bolt of cloth allows both countries to increase their consumption of both goods. Thus, specialization due to trade based on comparative advantage provides mutual benefits.

The Gains from Trade: Selected Developments Since Ricardo

Not surprisingly, trade theory has progressed since Ricardo. Some of the developments provide alternative explanations of comparative advantage, while others use different explanations of trade flows.

The most well-known alternative explanation of comparative advantage is the Heckscher-Ohlin model of international trade. This model is based on (i) the fact that countries differ from each other in terms of their productive resources (e.g., labor, capital, natural resources) and (ii) the fact that goods are produced using different proportions of those resources.

To illustrate the theory, assume two countries, China and Japan; two productive resources, labor and capital; and two goods, automobiles and clothing. Assume further that China's endowment of labor relative to capital exceeds that of Japan. In this case China is relatively well endowed with labor. Conversely, Japan is relatively well endowed with capital. Thus, one should expect that the price of labor relative to capital would be lower in China than in Japan.

Next, assume that in the production of clothing the use of labor relative to capital is greater than in the production of automobiles. In this case, clothing is produced by relatively labor-intensive methods and, conversely, automobiles are produced by relatively capital-intensive methods.

The Heckscher-Ohlin theory states the following: A country will be able to produce a good at a relatively lower cost if its production requires a relatively larger proportion of a relatively abundant resource in that country. (That is, a relatively abundant resource would be a relatively less expensive factor of production.) In the present example, this implies that China should have a comparative advantage in clothing and Japan should have a comparative advantage in automobiles. As in the Ricardian case, the different relative prices provide the basis for both countries to gain from international trade by means of exchange (i.e., Japan will export automobiles and import clothing and China will export clothing and import automobiles) and specialization (i.e., Japan will increase its production of automobiles and China will increase its production of clothing).[9]

An appealing feature of the Heckscher-Ohlin model is that it can generate insights into the political economy of trade policy. The preceding discussion suggests that allowing for free trade sets in motion a number of price changes. Specifically, the relative prices of goods in the two countries should tend to equalize, as well as the prices of the productive resources. In the two-country, two-good, two-resource world discussed above, the payments to one factor in a specific country will rise and the payments to the other factor will fall.

The Stolper-Samuelson theorem states that free international trade benefits a country's abundant resource and harms that country's scarce resource. In the preceding example, this means that capital will benefit and labor will be harmed in Japan. Meanwhile, labor will benefit and capital will be harmed in China.[10] As a result, it is easy to see why labor in Japan would be opposed to the reduction of trade barriers with China and that capital would support such a change. Later in the paper I use the Stolper-Samuelson theorem in the context of U.S. trade policy.

The Heckscher-Ohlin model focuses on interindustry trade. This trade exists when a country exports goods produced by one industry in exchange for goods produced by another industry in a second

[9] In contrast to the Ricardian assumption of constant opportunity costs, the Heckscher-Ohlin model allows for increasing opportunity costs. In many cases, increasing opportunity costs, which imply that costs per unit increase as more of a good is produced, are more realistic than constant opportunity costs.

[10] The intuition is straightforward. Prior to free trade, labor in Japan is relatively scarce and, thus, wages tend to be high. With free trade, the relative scarcity of labor is reduced by the fact that Japanese consumers can buy the labor-intensive good at a lower price from China. Thus, there is downward pressure on the price of labor in Japan. Similar reasoning can be applied to explain why capital in Japan benefits from free trade.

country. For example, the United States exports machinery to China in exchange for clothing. A common feature of the trade between industrialized countries is that they export and import similar types of products, which is known as intra-industry trade. For example, industrialized countries export and import different models of automobiles. Such trade likely requires explanations other than those based on comparative advantage. One explanation revolves around increasing returns to scale, which are said to exist when an identical percentage increase in the use of each productive input causes an even larger percentage increase in output. For example, if the use of each input were increased by 10 percent, output would increase by more than 10 percent. If increasing returns exist, then the cost per unit for the firm (industry) declines as its output increases.

In a world with increasing returns to scale, benefits from free trade arise because removing trade barriers allows a country to specialize in industries where average costs decline as output expands. Another view of this phenomenon is that productivity in the industry increases as more resources are utilized. These productivity increases are an important source of the gains from trade.

The existence of increasing returns to scale complicates the analysis of international trade by forcing the consideration of market structures other than perfect competition and raises the possibility that both countries do not gain from trade.[11] Overall, however, recent theoretical developments have likely strengthened the case for an open trading system by highlighting three sources of gains from trade. First, as highlighted in the preceding paragraph, as the market potentially served by firms expands, there are gains associated with declining per-unit production costs. A second source of gains results from the reduction in the monopoly power of domestic firms, who face increased pressures from foreign competitors to produce output demanded by consumers at the lowest possible cost. The third gain is that consumers enjoy increased product variety and lower prices.

The Gains from Trade: A Graphical View

Many of the key ideas discussed previously can be illustrated graphically. For space reasons I limit my focus to the static gains from trade by using a partial equilibrium approach.[12] Static gains refer to one-time benefits of reducing trade barriers that arise as national (domestic) prices move closer to global (world) prices. The price changes stemming from the liberalization of trade cause productive resources to be reallocated and consumption patterns to change, which result in the gains from specialization and exchange identified by Ricardo.

The illustration of the static gains from free trade using partial equilibrium analysis assuming perfectly competitive markets is straightforward.[13] As discussed previously, different relative prices for the same good in two countries provide a fundamental reason for international trade. If the price in the United States is higher than the price abroad when no trade is allowed, then the good will be imported into the United States when free trade is allowed.[14] On the other hand, if the price in the United States is lower than the price abroad when no trade is allowed, then the good will be exported from the United States when free trade is allowed. Consequently, two cases—one in which the good is imported into the United States and the other in which the good is exported from the United States—are examined.

In the first case, the price of a hypothetical good abroad is assumed to be lower than that in the United States. In Figure 1 the lines S_{US} and D_{US} are the U.S. supply and demand curves for the hypothetical

[11] A closely related issue that requires the consideration of imperfectly competitive market structures is strategic trade policy. When a small number of firms from different countries compete internationally (e.g., the aircraft industry), the theoretical case for free trade becomes somewhat murky. Government subsidies to a domestic firm can affect the behavior of foreign firms so as to benefit the subsidizing country. However, the theory of strategic trade policy, because many of its policy implications hinge on key assumptions, does not provide a strong enough case to alter substantially economists' opinions about free trade. See Chapter 14 in Irwin (1996) for a summary of this issue.

[12] The static gains from trade are the increases in economic well-being, with fixed levels of productive resources and technology, accruing to a nation as it changes from a policy of allowing no international trade to a policy of free trade. A partial equilibrium approach focuses on how price adjusts to equate quantity supplied with quantity demanded in a single market. The prices of all other goods and resources are assumed to remain unchanged. Alternatively, a general equilibrium approach examines the simultaneous determination of prices and quantities in all markets in an economy.

[13] A market is perfectly competitive if (i) there are many firms producing the good, each with a small market share; (ii) all firms produce a homogeneous product using identical production processes; (iii) all buyers and sellers possess perfect information; and (iv) firms can enter and exit the industry costlessly.

[14] Zero transportation costs are assumed to simplify the analysis. In addition, the foreign good is assumed to be a perfect substitute for the domestically produced good. Such an assumption is unlikely to apply to most traded goods, especially manufactured goods. Assuming foreign and domestically produced goods are imperfect substitutes complicates the analysis but does not alter the basic welfare effects. See Husted and Melvin (2001, pp. 180-82).

Figure 1

The Gains from Trade: The United States as an Importer

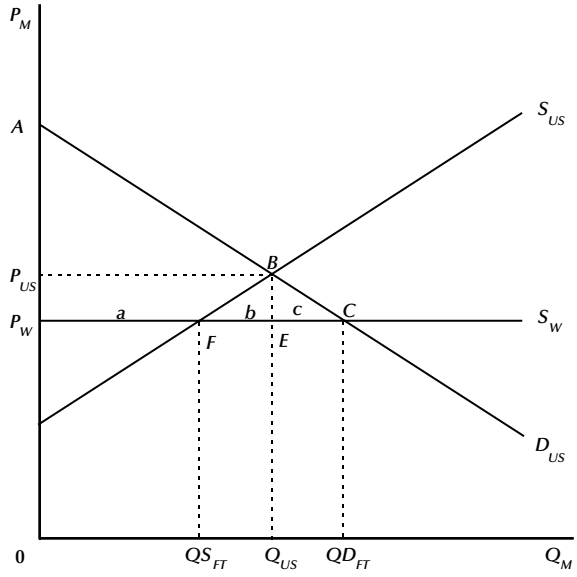
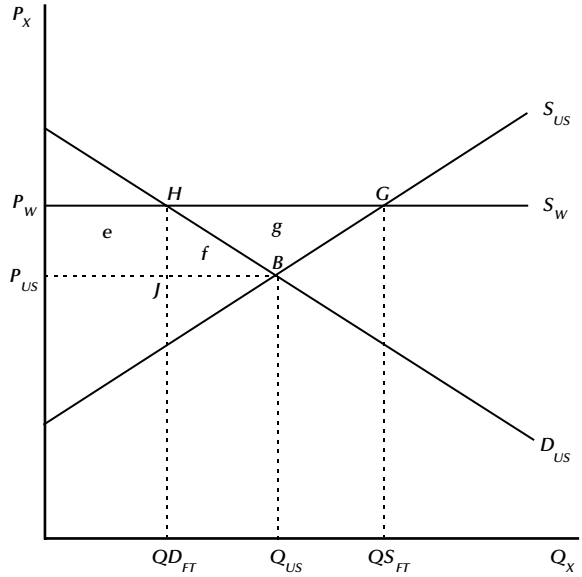


Figure 2

The Gains from Trade: The United States as an Exporter



good. Their intersection at B results in the equilibrium values for price, P_{US}, and quantity, Q_{US}, of the good. Meanwhile, S_W is the supply curve abroad. This curve, represented by a horizontal line, is based on an assumption that U.S. purchases will not affect the price abroad, which in this case is P_W. If one allows for free trade, this lower price abroad has two effects in the United States. First, U.S. consumers will increase their purchases of this good from Q_{US} to the free trade level of QD_{FT}. Second, U.S. producers will decrease their production of this good from Q_{US} to the free-trade level of QS_{FT}. U.S. purchases in excess of U.S. production (i.e., QD_{FT} less QS_{FT}) reflect the quantity of imports.

The lower price simultaneously benefits the U.S. consumers of this product and harms the U.S. producers of this product, a fact that can be used to explain why a free-trade policy is controversial. The magnitude of these gains and losses can be seen in Figure 1 using the concepts of consumer and producer surplus.[15]

First, we look at consumers, who gain in two ways. Prior to free trade, consumers purchased Q_{US} at a price per unit of P_{US}. With free trade, they pay the lower price per unit of P_W for Q_{US}. This gain in consumer surplus is represented by the rectangle $P_{US}BEP_W$. In addition, consumers gain because the lower price induces consumers to increase their purchases from Q_{US} to QD_{FT}. This additional increase in consumer surplus is represented by the triangle BCE. Thus, the total gain for consumers is the area $P_{US}BCP_W$ or, using lower case letters to represent specific areas, $a + b + c$.

Analogously, producers lose because of the lower price per unit they receive for their output, QS_{FT}, and the contraction of production from Q_{US} to QS_{FT}. Thus, the total loss incurred by producers is the area $P_{US}BFP_W$ or a. Overall, the United States gains because the consumer gains exceed the producer losses by $b + c$.

The preceding analysis can also be used for the case when the good is exported from the United States under free trade. The key modification of Figure 1 to create Figure 2 is that the price of the good prior to free trade is higher abroad than in the United States. The horizontal supply curve abroad, S_W, is based on the assumption that U.S. production will not affect the world price. Consequently, if one allows for free trade, the higher price abroad has two effects in the United States. First, U.S. consumers

[15] Consumer surplus is the difference between the amount consumers are willing to pay to purchase a given quantity of goods and the amount they have to pay to purchase those goods. Producer surplus is the difference between the price paid in the market for a good and the minimum price required by an industry to supply the good.

will decrease their purchases of this good from Q_{US} to the free-trade level of QD_{FT}. Second, U.S. producers will increase their production of this good from Q_{US} to the free-trade level of QS_{FT}. U.S. production in excess of U.S. purchases (i.e., QS_{FT} less QD_{FT}) reflects the quantity of exports.

The higher price simultaneously harms the U.S. consumers of this product and benefits the U.S. producers of this product. U.S. consumers lose because with free trade they are paying a higher price per unit, P_W versus P_{US}, for a smaller quantity of the export good, QD_{FT} versus Q_{US}. The reduction in consumer surplus is represented by the area $P_{US}BHP_W$ or $e+f$. Meanwhile, U.S. producers benefit from the higher price they receive for their prior output. In addition, they receive increased producer surplus as they expand production from Q_{US} to QS_{FT}. The total gain for producers is the area $P_{US}BGP_W$ or $e+f+g$. Overall, the U.S. benefits because the producer gains exceed the consumer losses by g.

The preceding partial equilibrium analysis is suggestive of the gains that the United States would generate as it moved from self-sufficiency to free trade. Obviously, the transition from self-sufficiency to free trade would set in motion numerous price changes. A general equilibrium approach allows for the simultaneous determination of prices and quantities in numerous markets. However, this theoretical advantage comes at the cost of increasing complexity in illustrating the gains from free trade; such an approach is not essential in this paper.[16]

The Dynamic Gains from Free Trade

Free trade can also contribute to economic growth, which is another source of gains. Such dynamic gains are potentially more important than the static gains. Most economic models suggest that trade liberalization will have a positive effect on economic growth.[17] An economy grows over time as a result of increases in its productive resources or technological innovation; both developments increase the capacity of an economy to produce goods and services. In addition, reducing trade barriers might increase competitive pressures that would force the efficient use of a nation's resources. Economic theory suggests a number of routes by which freer trade can stimulate growth.

One route is through increased savings that ultimately fund investment spending. Such spending increases the amount of capital. As argued previously, trade raises the level of real income, some of which can be saved. This higher level of savings translates into a greater availability of funds for investment spending. Free trade also allows the possibility for a country to borrow the savings of other countries. When a country imports more than it exports, a country is effectively borrowing funds from the rest of the world. If these funds are being used to finance the imports of capital goods, then a country's capital is increased.

A country, however, need not run trade deficits to import capital goods. When a country imports capital goods in exchange for consumer goods, then its productive capacity increases. This productive capacity allows for subsequent increases in output.

A related idea, stressed by Richardson (2001), is that free trade increases the possibility that a firm importing a capital good will be able to locate a supplier who will provide a good that more nearly meets its specifications. The better the match, the larger is the resulting increase in productivity, which ultimately translates into higher incomes.[18]

International trade may also spur the diffusion of technology by increasing the commercial contacts between employees in firms from different countries.[19] Such interactions serve to transfer information about new products and production processes. Of course, formal transactions may also facilitate the transfer of technology. Licensing is a common practice that allows the international transfer of technology. In addition, technology is embodied in new capital equipment. Thus, freer international trade facilitates the transfer of technology internationally and spurs economic growth.

Another potential route for economic growth results from the competitive pressures associated with international trade. Opening a country's markets to foreign firms tends to reduce the market power of domestic firms. For example, domestic monopolists are subjected to competitive pressures. As a result, the domestic firms are forced to become more effi-

[16] See Husted and Melvin (2001, Chap. 4).

[17] Whether the growth effect is temporary or permanent is closely related to whether an endogenous growth model or a neoclassical growth model is more nearly "true." In both types of models, a trade policy change can affect growth by altering either the accumulation of productive resources or technological progress.

[18] The same reasoning pertains to the gain for a consumer in finding a good that more nearly matches his/her preferences.

[19] Richardson (2001) notes that increased trade generates externalities by producing information about foreign markets and customers that spreads from those involved in international trade to those who are not. Such information can lower the cost of international trade and induce new firms to become involved.

cient or else they perish. Either way, a nation's productive resources will be used more efficiently in producing the goods that consumers desire.

A final route is related to the prior discussion suggesting that, as international trade expands the size of a market that firms face, firms might be able to exploit economies of scale. Recall that increased output at lower per unit cost is a clear-cut gain. Moreover, the larger market size might also spur research and development spending because the spending can be spread over larger levels of output. If successful, the spending would increase the productive capacity of the country.[20]

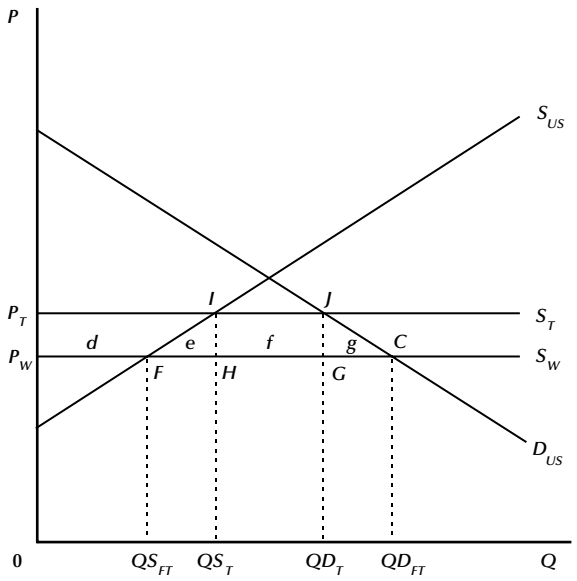
Empirical Studies of the Gains from Trade and the Losses from Protectionist Policies

The preceding discussion of international trade theory provides many reasons why economists support free trade policies. Empirical studies provide additional reasons. As discussed previously, a fundamental proposition is that international trade allows a country to achieve a higher real income than would otherwise be attained. Empirical evidence tends to confirm this proposition. For example, Frankel and Romer (1999) find that the impact of trade on income in 1985 is positive; however, in their study the precise impact is uncertain. Increasing the ratio of trade to gross domestic product by 1 percentage point raises per capita income by between 0.5 and 2 percent. Irwin and Terviö (2000), in an extension of Frankel and Romer, find that the impact of trade on income is positive for various periods in the twentieth century. These results suggest, at a minimum, that policies restricting international trade can result in substantial costs in terms of actual per capita income falling short of potential per capita income.

Additional empirical evidence focused directly on the issue of free trade has also been generated. Numerous estimates of the static and dynamic costs/benefits using partial as well as general equilibrium approaches have been produced assessing the consequences of trade policy changes. Using a partial equilibrium approach, it is easy to illustrate the effects of a trade policy change via supply and demand curves. Figure 3 shows the supply and demand curves for a hypothetical good imported into the United States that is subject to a tariff. Identical to Figure 1 the free trade results reveal, given the free trade price of P_W, U.S. consumption of

Figure 3

The Effects of a U.S. Tariff



QD_{FT}, production of QS_{FT}, and imports equal to the difference between QD_{FT} and QS_{FT}. Assume a tariff is imposed, causing the price in the United States to increase to P_T. The price in the United States now exceeds the price in the world by the amount of the tariff, P_WP_T.

The higher U.S. price causes consumer purchases to decrease from QD_{FT} to QD_T, production to increase from QS_{FT} to QS_T, and imports to decrease from $QS_{FT}QD_{FT}$ to QS_TQD_T. The imposition of the tariff causes consumers to lose $d + e + f + g$, while producers gain d. Thus, domestic producers are protected from foreign competition at the expense of domestic consumers. One complication is that the government collects tariff revenue. This revenue, which can be viewed as a gain for the government, equals the tariff, P_WP_T, times the quantity of imports, QS_TQD_T. This revenue is represented by area f.

Overall, the United States loses because the losses of consumers, $d + e + f + g$, exceed the gains of producers, d, and of government, f. The net national loss is $e + g$. Area e is called a "deadweight production loss" and reflects the loss from inefficient (excessive) production, while area g is called

[20] The automobile industry illustrates many of the routes producing dynamic gains from trade, especially those stemming from the diffusion of technology, competitive pressures, and economies of scale. See Fuss and Waverman (1992).

Table 1

Welfare Effects of Liberalizing Trade in Certain U.S. Industries, 1990 (millions of dollars)

Industry	Tariff or equivalent	Consumer gain	Producer loss	Net national gain	Consumer gain per job lost (dollars)	Net national gain per job lost (dollars)
Ball bearings	11.0%	64	13	1	438,356	6,849
Benzenoid chemicals	9.0	309	127	10	>1,000,000	46,296
Canned tuna	12.5	73	31	10	187,179	25,641
Ceramic articles	11.0	102	18	2	244,019	4,785
Ceramic tiles	19.0	139	45	2	400,576	5,764
Costume jewelry	9.0	103	46	5	96,532	4,686
Frozen orange juice concentrate	30.0	281	101	35	461,412	57,471
Glassware	11.0	266	162	9	180,095	6,093
Luggage	16.5	211	16	26	933,628	115,044
Polyethylene resins	12.0	176	95	20	590,604	67,114
Rubber footwear	20.0	208	55	12	122,281	7,055
Softwood lumber	6.5	459	264	12	758,678	19,835
Women's footwear, except athletic	10.0	376	70	11	101,567	2,971
Women's handbags	13.5	148	16	13	191,462	16,818
Dairy products	50.0	1,184	835	104	497,897	43,734
Peanuts	50.0	54	32	22	136,020	55,416
Sugar	66.0	1,357	776	581	600,177	256,966
Maritime transport	85.0	1,832	1,275	556	415,325	126,049
Apparel	48.0	21,158	9,901	7,712	138,666	50,543
Textiles	23.4	3,274	1,749	894	202,061	55,175
Machine tools	46.6	542	157	385	348,329	247,429

NOTE: Tariffs are the primary protective device for the first 14 industries in the Table. Import quotas are used for dairy products, peanuts, sugar, and maritime transport. Voluntary export restraints are used for apparel, textiles, and machine tools.

SOURCE: Derived from Tables 1.2 and 1.3 in Hufbauer and Elliott (1994).

a "deadweight consumption loss" and reflects the loss from inefficient (too little) consumption.

Hufbauer and Elliott (1994) have generated estimates of the potential net national gains by industry, as well as the consumer gains and producer losses, if the United States were to liberalize trade in 21 industries. Table 1 reveals that the gains for consumers in the apparel industry would exceed $21 billion if protection were removed. Not surprisingly, a substantial portion of this gain would come at the expense of producers whose losses would by nearly $10 billion. The net national gain from liberalizing trade in the apparel industry would be $7.7 billion.

Additional perspective is provided by expressing the consumer and national gains relative to the job losses in the apparel industry resulting from the liberalization. The consumer gain per job lost is $139,000, and the net national gain per job lost is $51,000. What this means is that consumers were effectively paying an average of $139,000 for each job protected in 1990 in the apparel industry, an industry in which the average pay of a production worker was less than $15,000.

Clearly, the net national gains from liberalizing trade in the apparel industry exceed by a large amount the potential gains from liberalizing other

Table 2

Welfare Estimates of Liberalizing Trade in Highly-Protected Sectors, 1996 (millions of dollars)

Sector	Welfare increase
Simultaneous sector liberalization of all significant restraints	12,402
Individual liberalization:	
Textiles and apparel	10,376
Maritime transport (Jones Act)	1,324
Sugar	986
Footwear	501
Dairy	152
Ball and roller bearings, and parts	49
Frozen fruit, fruit juices, and vegetables	28
Costume jewelry and costume novelties	19
Leather gloves and mittens	16
Personal leather goods	14
China tableware	12
Ceramic tile	9
Cutlery	4

SOURCE: U.S. International Trade Commission (1999, Table ES-1).

industries. However, there are large gains that could be realized by liberalizing trade in a number of other industries. Net national gains exceed $500 million dollars in the textiles, sugar, and maritime transport industries. Moreover, the consumer gain per job lost in the sugar industry is $600,000 and the net national gain per job lost is $257,000. It is also noteworthy how much consumers can gain per job lost in other industries. In the benzenoid chemicals industry the consumer gain per job lost exceeds $1 million; in the luggage industry the consumer gain per job lost exceeds $900,000. In the latter case, the net national gain per job lost is $115,000.

A recent study by the U.S. International Trade Commission (1999) uses a general equilibrium approach to explore the consequences of liberalizing trade in industries subject to significant trade restrictions. Based on 1996 data, the simultaneous liberalization of all significant restraints causes a net national gain of $12.4 billion, as shown in Table 2. Given the results in Hufbauer and Elliott (1994), it is not surprising that the elimination of trade barriers in the textiles and apparel sector yields the majority of the gains. Nor is it surprising that the maritime transport, sugar, footwear, and dairy industries are the sources for the majority of the rest of the gains.

The preceding examples reveal the possibility of substantial gains by liberalizing trade in selected industries. Overall, however, U.S. trade policy can be characterized as "open" relative to the policies of other countries. Consequently, estimates of the gains from trade do not reflect a change from the prohibition of trade to free trade, but rather a change from some level of trade restriction to free trade. From this perspective it should not be surprising that, relative to total U.S. economic activity, the static gains from eliminating trade barriers (or the costs stemming from the existing trade barriers) are relatively small.[21] Of course, one might argue that gains exceeding $12 billion are still substantial.

The preceding discussion has been focused on unilateral reductions of U.S. trade barriers.[22] Hertel (2000) provides a quantitative assessment of the

[21] See Zarazaga (1999) for a survey of static models of unilateral trade liberalization. He concludes that the gains range from negligible to moderate.

[22] Unilateral trade liberalization is an alternative to negotiated reductions, which become very complex as the number of goods and services being discussed increases and as the number of countries involved increases. Jackson (1997) noted that 26,000 pages were used to list the results of the Uruguay Round, the most recent multilateral round that lasted more than eight years and involved more than 120 countries.

potential gains from trade liberalization under a new round of multilateral negotiations. Specifically, Hertel analyzed a worldwide, across-the-board elimination of protection in agriculture and in a subset of services—business and financial services and construction services—as well as the elimination of tariffs in manufacturing. He estimated that the gains in real income for Canada, Mexico, and the United States as a whole were 0.37 percent of their income. Because the size of the U.S. economy is substantially larger than either Canada's or Mexico's, it is reasonable to infer that the specific gains as a share of income for the United States are roughly 0.37 percent as well. Such a percentage is consistent with most estimates of the static gains for the United States.

In contrast to the findings concerning the static gains, one finds that the empirical literature assessing the relationship between trade policy and economic growth is far from definitive. Numerous problems with this empirical analysis preclude an unqualified conclusion.[23] Many studies, using different data sets, countries, and methodologies, have found that countries with more-open trade policies (i.e., those closer to free trade) tend to grow faster than countries with less-open trade policies.[24] For example, Sachs and Warner (1995, pp. 35-36) find

> a strong association between openness and growth, both within the group of developing and the group of developed countries. Within the group of developing countries, the open economies grew at 4.49 percent per year, and the closed economies grew at 0.69 percent per year. Within the group of developed economies, the open economies grew at 2.29 percent, and the closed economies grew at 0.74 percent per year.

However, Harrison and Hanson (1999) argue that the openness index used by Sachs and Warner does not measure trade policy only. Harrison and Hanson go on to show that the components most closely linked to trade policy in Sachs and Warner's index are not related to growth.[25] Thus, the results are sensitive to the measurement of trade policy.

To illustrate further this sensitivity in the measurement of trade policy, Harrison and Hanson replace Sachs and Warner's measures of tariffs and quotas with an alternative tariff measure. In this case, openness to trade has a significant impact on growth. A decrease in the tariff rate of 10 percentage points causes an increase in average growth in real per capita gross domestic product of 0.5 to 0.6 percent.

The question of the robustness of the relationship between openness and productivity growth is explored in detail in Edwards (1998). Using data for 93 countries, he found that the more open countries experienced faster productivity growth. This basic finding held up despite the use of different openness indicators, estimation techniques, time periods, and functional forms.[26]

In summary, the empirical literature clearly indicates that liberalizing trade in highly protected industries is likely to yield gains. Whether those gains are large is in the eye of the beholder. The evidence concerning the dynamic gains from trade reveals that economies that are more open are likely to grow faster. If the faster growth is long-lived, substantial increases in well-being can be generated.

WHY FREE TRADE IS CONTROVERSIAL

What Does Research Based on Self-Interested Behavior Reveal?

To understand the opposition to free trade, one must understand the preferences of individuals as they relate to the policy choices available to policymakers. Unfortunately, most economic research does not provide direct evidence on the preferences of individuals. Generally speaking, empirical research on the political economy of trade policy

[23] One problem is difficulty of measuring trade policy. The choice of indicators for "openness" is somewhat arbitrary. A second problem arises because free trade countries may also adopt simultaneously other policies that affect income and growth. Thus, a researcher cannot be certain that the estimated impact of the trade policy measure is capturing solely the impact of trade policy. A third problem is that growth may affect openness just as openness may affect growth. Estimating a single equation in which growth is affected by openness may yield a biased estimate.

[24] For a more thorough discussion of the empirical evidence on the relationship between trade policy and growth—including an extensive bibliography of relevant studies—see a 1997 report by the United States International Trade Commission.

[25] A frequently cited study showing no strong relationship between liberalizing trade and long-run growth is by Levine and Renelt (1992); however, they found a robust, positive relationship between investment and trade share that led them to conclude that trade reform may generate growth through increased capital accumulation.

[26] Empirical evidence on trade policy and growth consists primarily of cross-country analyses. Ideally, one would like to use a dynamic, general equilibrium model for a specific country. Zarazaga (2000) concludes that minimal progress has occurred in constructing and estimating such a model.

focuses on trade policy outcomes. Because representatives do respond to the economic interests of their constituents, these outcomes certainly depend on the preferences of individuals. However, there are a number of other factors that come into play, such as the influence of interest groups, the preferences of policymakers, and the institutional structure of government. These other factors preclude the researcher from making definitive statements about individual preferences.[27]

Nonetheless, the voluminous literature on the determinants of protection does provide some results suggestive of individual preferences. For example, protection received by an industry is higher when it is a labor-intensive, low-skill, low-wage industry. This suggests that individuals are willing to support trade restrictions to improve the job and income prospects of low-income workers.

A recent study by Scheve and Slaughter (2001b) focuses specifically on individual preferences. They find that the lower the skill level of a worker, measured by education or average occupational earnings, the stronger is the worker's support for new trade barriers.[28] This result is consistent with a Heckscher-Ohlin trade model in which the United States is well endowed with skilled labor. Recalling the prior discussion of the Stolper-Samuelson theorem, the movement to free trade would tend to increase the incomes of skilled labor. Meanwhile, the incomes of unskilled labor would fall further behind. Because less-skilled workers have experienced sharp declines in their wages relative to more-skilled workers, Scheve and Slaughter (2001a) argue that the differences in their attitudes toward free trade may reflect the different wage-growth experiences of these groups since the early 1970s.[29] Arguably, the poor labor-market results of low-skilled workers, both absolutely and relative to high-skilled workers, could be due to other factors such as technological changes favoring high-skilled workers.[30] Scheve and Slaughter argue that, regardless of the reasons for their poor labor-market experience, those with relatively less education and skill expect the labor-market results stemming from additional international trade flows to be harmful.

More generally, the public fails to see any broad-based gains from trade. For example, the University of Maryland (2000) survey of public opinion found that Americans viewed the benefits of trade as flowing to business rather than to themselves or to American workers in general. The difficulty of envisioning broad-based gains might simply reflect the difficulty of envisioning any gains. As discussed previously, the static gains for an average individual of implementing free trade for the United States are small. Moreover, it is likely difficult for non-economists to envision how free trade will spur economic growth that will improve their economic well-being. Thus, because they do not see personal benefits, it is easy to see why individuals lack enthusiasm about trade negotiations.

Other Perspectives: The Social Dimensions of Trade

A foundation of economic analysis is self-interested behavior. In the present context, this implies that individuals evaluate trade policy based on how their current well-being is affected without regard for national well-being. However, people act for various reasons, some of which are materialistic and some of which are humanitarian. The allowance for self-interested behavior beyond those satisfying material demands complicates economic analysis. Nonetheless, such motives might well be important in understanding the opposition to free trade policies.

Employment/Income Concerns. The survey information cited previously indicates one of the reasons that the general public remains reluctant to support the free trade policies espoused by most economists: concern about jobs, but not necessarily their own. One might view this reason as reflecting humanitarian motives. Kinder and Kiewert (1979) argue that voters are motivated by collective well-being as well as their own individual well-being. One manifestation of such preferences is reflected in an observation by Krueger (1990). She argued that U.S. residents who stand to gain from trade liberalization may oppose it, nonetheless, when there are identifiable losers.

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[27] See Rodrik (1995) for further discussion of this and many other issues related to trade policy.

[28] Because economists, on average, are more highly educated than the general public, this finding produces another reason why the free trade views of economists differ from those of the general public.

[29] Actually, the focus of Scheve and Slaughter (2001a) is on globalization, which includes immigration and foreign direct investment as well as international trade. Those with relatively less education and skill expect the labor market results stemming from further globalization to harm their well-being. This interpretation based on economic self-interest is not widely accepted. The standard view is that the opposition consists of a combination of groups with varied interests, not all of which can be connected to their economic self-interest.

[30] See Richardson (1995) for an analysis of the controversy concerning trade and income inequality.

Note how such preferences conflict with the analysis underlying Figure 1. In Figure 1 a given value of losses suffered by producers were netted, dollar for dollar, against the larger value of gains received by consumers. However, it is possible that it is not that simple. For example, assume a change in trade policy that would cause a $105 gain for a high-income individual but a $100 loss for a low-income individual. Despite a net national gain of $5, it is possible that a third party might oppose such a change because the adverse effect for the low-income individual might be viewed as outweighing the beneficial effect for the high-income individual.[31]

In addition, there are short-run adjustment costs stemming from changes in trade policy that might generate opposition. Because some industries will reduce production, some workers will lose their jobs. Being unemployed, regardless of its length, is a noteworthy cost that generates opposition to proposed trade-policy changes from both those likely to be adversely affected and those who sympathize with them.

The sense of community highlighted by Kinder and Kiewert (1979) might well extend beyond U.S. borders. Evidence suggests that U.S. consumers care about the conditions of the workers in developing countries.[32] Elliott and Freeman (2001) concluded that the vast majority of people are willing to pay higher prices for items produced under better working conditions in developing countries. In addition, most Americans favor linking labor standards to trade.[33] The 1999 Program on International Policy Attitudes survey found that 93 percent of respondents felt that as part of international trade agreements countries should be required to maintain minimum standards for working conditions (University of Maryland, 2000). In this same survey, three-quarters of the respondents felt morally obligated to help workers faced with poor working conditions. Moreover, roughly the same percentage reported a willingness to pay $5 more for a $20 garment if they knew it was not made in a sweatshop.[34] Overall, most respondents found the arguments for minimum standards (that harsh conditions are immoral and that standards eliminate cost advantages due to exploitation) to be more convincing than the arguments against standards (that the standards might hinder exports and reduce jobs in developing countries, as well as impinge on national sovereignty).

Note, however, that self-interest might provide a reason for some to argue for the linking of labor standards with international trade. Even when differing labor standards are appropriate given the specific situations of individual countries (i.e., the benefits exceed the costs at the national level), differing labor standards do provide cost advantages to firms in countries with relatively low standards. These advantages cause competitive problems for firms in countries, such as the United States, with relatively high standards. Such competitive problems are especially pronounced for those firms and workers in labor-intensive industries. Thus, higher standards would serve the interests of those being harmed by the imports from low-cost competitors. Not surprisingly, countries with low standards view the proposals to link labor standards with trade measures as protectionist because such proposals would tend to eliminate some of the cost advantages possessed by the firms in these countries.

Environmental Concerns. Similar to linking labor standards to trade, sentiment exists for linking environmental issues to trade. A fundamental concern is that free trade will stimulate economic growth and that this growth will harm the environment.[35] This argument illustrates a basic source for conflict between free traders and environmentalists. Proponents of free trade want to remove governmentally imposed trade barriers so that markets can generate efficient results, while environmentalists see free trade as generating consequences that require additional governmental regulations.

The 1999 Program on International Policy Attitudes survey revealed that 77 percent of respondents felt there should be more international agree-

[31] In theory, the "winner" could compensate the "loser" for his losses and still be better off; however, this is very difficult to implement in the real world. Policies that attempt to reduce the costs incurred by the "losers" are discussed later.

[32] Issues involving child labor have provoked intense controversy. Basu (1999) noted that in 1995 at least 120 million children between the ages of 5 and 14 worked full-time. The number working rises to 250 million when part-time workers are included. Not surprisingly, the incidence of child labor is highest in developing countries and has been so for several decades.

[33] Labor standards are the norms and rules governing working conditions and industrial relations. Standards addressing the freedom of association (i.e., the right of workers to establish and join organizations of their own choosing), the right to organize and bargain collectively, and the abolition of forced labor are commonly viewed as core labor standards.

[34] Of course, the behavior suggested by survey responses need not coincide with actual behavior. Elliott and Freeman (2001) discuss evidence suggesting that people do behave in ways consistent with these survey results.

[35] As discussed later, economic growth does not necessarily lead to environmental degradation.

ments on environmental standards. Underlying this result is a belief by many that environmental problems, such as acid rain and greenhouse gases, are global in nature. Clearly, acid rain and greenhouse gases are international issues that require a solution among governments; however, many economists would argue that many environmental problems are domestic issues that require a national solution. Views of what constitutes a strictly domestic environmental problem and what constitutes an international one can differ.

Some of the concern about the environment, however, can be linked to U.S. jobs. For example, 67 percent of respondents felt that the absence of international environmental standards would threaten U.S. jobs, as well as the environment, because lower environmental standards abroad would make the United States a less competitive location and would induce U.S. companies to relocate. This view that diversity in environmental standards would affect the desirability of maintaining/locating production in the United States tends to make allies of U.S. companies, labor unions, and environmentalists. In terms of trade negotiations, this view requires that environmental regulations must be harmonized with, at least, existing U.S. standards prior to allowing for free trade. Many economists, however, would argue that domestic environmental problems should be handled nationally and that international differences in environmental standards are natural.

Generally speaking, the survey respondents did not support views on environmental issues based on either national sovereignty or fairness. Only 33 percent supported the view that each country should decide how to deal with environmental issues. Only 37 percent supported the view that, because the costs of complying with international environmental standards would vary across countries, such standards would be unfair for countries with relatively high compliance costs. The prevailing views in this survey likely conflict with views that most economists hold. For example, most economists would argue that a national problem requires a national solution and that the costs as well as the benefits of any proposed solution be considered.

Clearly, the protection of U.S. jobs underlies the environmental position of many. Nonetheless, there is evidence that, when faced with a trade-off between protecting the environment and increasing jobs and economic growth, a majority of Americans, 52 percent, chose protecting the environment. Of the remainder, 37 percent chose jobs and 10 percent viewed the environment and jobs as equally important.

BRIDGING THE GAP

Three approaches have been suggested to move public opinion toward supporting free trade. The first approach is to increase economic education on free trade. The second approach reduces the costs borne by those who are harmed by the implementation of free trade policies. In other words, those incurring job losses and wage reductions might be compensated to ameliorate these costs. As a result, those facing job and wage uncertainty related to proposed trade agreements, as well as those concerned about these individuals, might be more inclined to support trade liberalization. The third approach attempts to increase support for free trade by expanding the agenda encompassed by trade negotiations. By addressing additional issues, such as those of concern to labor and environmental interests, support for trade liberalization efforts may be increased.

Education

Because economists find the arguments for free trade to be convincing, they are inclined to think that increased economic knowledge would increase public support for free trade. Some evidence—admittedly sparse—supports this view. Research by Saunders (1980) and Gleason and Van Scyoc (1995) indicates that a college economics course has a lasting impact on the economic knowledge of adults. Walstad (1997) found that economic knowledge was directly related to one's opinion on various economic issues; moreover, the more economic knowledge one had, the more likely it was for the individual to hold an opinion that coincided with the opinion of most economists.

In terms of influencing public opinion, an important issue is how to communicate with those not likely to take an international economics course. Cass (2000) notes that economists' arguments for free trade are often at odds with public discussions. As discussed previously, economists focus on consumption; however, public discussions tend to focus on production. The economist stresses that free trade allows for increases in well-being because consumers can buy more and varied goods at lower prices. Meanwhile, public discussions frequently argue that exports are good, but imports are bad; exports support jobs, frequently well paying ones, but imports destroy domestic job opportunities.

Thus, the economist's view of imports as good rather than evil is ignored by many. Imports provide consumers with increased choices of items that might be of higher quality, lower price, or more suited to one's tastes than would otherwise be available. Exports help us buy imports, but our enjoyment comes from consuming goods rather than from producing goods. To point out the folly of viewing exports as good and imports as bad, nineteenth-century economist Frédéric Bastiat satirically wondered whether the best outcome would be for ships transporting goods between countries to sink.[36] As a result, countries could have exports without imports.

As noted here previously, the nature of the popular discussion tends to strengthen the arguments against free trade in relation to the arguments for free trade. Cass (2000) notes three types of asymmetry. The opposition to free trade is strengthened by its visual appeal. For example, when international trade is identified as the reason for a plant closure or a layoff, a picture of a closed plant can be provided or the consequences for a specific family can be told.[37] Meanwhile, the case for free trade is more difficult to present in concrete terms.

A closely related asymmetry is that the intensity of the argument likely favors the opponents of free trade. The opposition to free trade comes from workers who may lose their jobs. It is easy to see why such a group would be passionately opposed to international trade. Conversely, the beneficiaries of free trade are likely to be more diffuse. Their individual benefits are more likely to be small and frequently hard to identify precisely. Thus, passionate support is unlikely on this side of the argument.

Finally, the arguments against free trade are more readily appreciated than those for free trade. For example, it is relatively easy to understand that competition as a result of imports makes it more difficult for a domestic company to generate profits. Moreover, the competition puts downward pressure on wages and causes layoffs. Arguments in favor of free trade that rely on comparative advantage and the gains from specialization and exchange are not likely to be very convincing, especially in light of the limited knowledge many citizens possess about how markets function.

Given the preceding obstacles of influencing the general public, economists must use approaches and arguments that overcome these obstacles. Roberts (2000) offers a number of suggestions for communicating with the "open-minded skeptic."

Frequently, proponents of free trade suggest that exports create jobs. On the other hand, opponents of free trade stress that imports destroy jobs. It is possible that the focus on jobs distorts one's view of free trade. Recall that the previously discussed survey asked the general public their views about eliminating tariffs by stating that prices would decline, but that certain jobs would likely be eliminated. No mention was made of the fact that jobs would also be created so that the net job effect would likely be negligible. The bottom line is that trade policy does affect the distribution of jobs, but is unlikely to affect substantially the net number of jobs.

Roberts also cautions against stating that free trade is good for everyone. It is not. Despite the argument that the removal of a tariff generates benefits to consumers that exceed the losses of producers, the producers as well as the workers who are adversely affected are not always compensated for their losses. Rather than duck this issue, it should be acknowledged. In addition, policies to assist those incurring losses, which are discussed later, could be stressed.

Because the costs are easier to see than the benefits, Roberts suggests the proponents of free trade attempt to make the gains concrete. Students in economics classes might be convinced of the wisdom of free trade policies using the economic theory and tools that economists find convincing, but the general public would probably ignore such a discussion. A compelling case likely requires an illustration of the gains from trade in the form of specific examples or reasonable hypothetical examples. As discussed previously, many individuals do not see how they gain from free trade or how they are harmed by trade restrictions. Expressing the gains of reducing trade barriers in terms of consumer gains (or national gains) per job lost is one way to argue convincingly. Another specific example is to show how per capita income in the United States would increase over a ten-year period if free trade led to an increased U.S. growth rate of 1 percent per year. In this case U.S. per capita gross domestic product in 2000 would have been more than $3,500 higher than its level of $35,400. Most individuals can appreciate the effect of a roughly 10 percent pay increase. Moreover, stressing the beneficial growth effects of free trade moves the focus from a winners-versus-losers focus to the possibility of everyone sharing in the benefits of increased growth.

However, the benefits of economic growth are

[36] This observation is cited in the *Economist* (2001).

[37] This asymmetry is referred to as an "identity bias" by Krueger (1990).

unlikely to convince some individuals and groups to support free trade. As international trade has become more important, its potential economic and social effects have increased. One consequence is increased demands that trade discussions encompass a broader range of economic and social issues. Moreover, Americans do not see the growth of trade as a key priority. They see international trade as a goal that should be balanced with other goals, such as protecting workers, the environment, and human rights.[38]

Not surprisingly, expanding the range of issues complicates trade negotiations. Resolving social issues is especially difficult because of the tradeoffs that are required to satisfy competing objectives—tradeoffs, in fact, for which policymakers lack precise information. Deardorff and Stern (2000) pose some of the most challenging tradeoffs. For example, although child labor may be deplorable, it is possible that the earnings may be necessary to keep the children alive. A cleaner environment is desirable, but maybe not if the cost pushes the poorest countries further into poverty. Human rights are valuable, but so is national sovereignty. Obviously, disagreements on the "right" balance are inevitable.

In view of this mixing of social issues with trade issues, educational efforts in support of free trade must address the concerns raised by environmentalists and others. In fact, strong arguments can be made that trade liberalization is consistent with the achievement of social objectives.

Bhagwati (1993) has demonstrated that the argument that free trade harms the environment can be handled directly.[39] Growth provides additional revenues for governments to pursue various objectives, including environmental protection.[40] How a specific country decides to spend its additional revenues depends on the relationship between increasing incomes and the demand for a better environment. Generally speaking, the wealthier a country, the greater is its demand for a better environment. However, demand is only part of the story. One must also consider how growth affects the production of pollution. Thus, the net effect on the environment depends on the type of economic growth. Grossman and Krueger (1993) found, using cities throughout the world, that sulfur dioxide pollution fell as per capita income rose beyond $5000. Thus, growth as a result of freer trade should tend to improve rather than harm the environment.

It is also possible to argue that international differences in environmental standards are natural and are not a justification for linking environmental issues with trade negotiations.[41] Different environmental standards for local pollution problems can be justified because they are necessary for economic efficiency.

Economic efficiency requires that pollution be reduced until the point at which the additional benefits of reducing pollution equal the additional costs. Numerous factors, two of which are highlighted, affect the level of environmental quality associated with economic efficiency.[42] Assimilative capacity, which is the capacity of the environment to reduce pollutants naturally, is one factor. Quite possibly, a less-industrialized country has greater assimilative capacity than a more-industrialized country because of less pollution in the past. Thus, it can tolerate a higher level of emissions than an industrialized country without increasing pollution levels.

A second factor likely to affect a country's level of environmental quality is its income level. A low-income country might put a higher value on the production of goods relative to environmental quality than a high-income country. This lower value on environmental quality leads to relatively lower environmental standards in the low-income country.

To summarize, international differences in environmental standards are natural and allow countries to use their productive resources efficiently. Forcing countries to have identical standards is a recipe for economic inefficiency.[43] Economic efficiency, however, might be of little concern to environmentalists. If so, then economic education is unlikely to be effective in convincing environmentalists to alter their opposition to reducing trade barriers. Some argue that the goal of environmentalists is to use trade policy to impose their

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[38] For example, the University of Maryland (2000) survey of public opinion found 88 percent agreed that increasing international trade is a goal to be balanced against protecting workers, the environment, and human rights, even if the result was a slower growth of trade and the economy in general.

[39] See Butler (1992) for a discussion concluding that free trade and environmental policies can work together to generate worldwide economic growth and environmental quality.

[40] A similar argument can be made concerning child labor. For example, the growth resulting from free trade can provide the resources and opportunities to reduce the participation of child laborers in developing countries.

[41] A similar argument can be made in justifying differences in labor standards.

[42] See Butler (1992) for a more complete discussion of why countries choose different levels of environmental quality.

[43] Note that different regional environmental standards exist within the United States.

values on other countries.[44] In many cases their values are not widely accepted. For example, many environmentalists want to suspend the trading rights of countries that sanction the use of purse-seine nets in tuna fishing and leg-hold traps in trapping. It is clear that different people hold widely different views of the relative importance of, say, dolphins versus the economic livelihood of the Mexican fishing industry. In addition, as Bhagwati (1993) has noted, the inclusion of idiosyncratic values into trade negotiations opens the way for numerous conflicting demands as environmentalists favor dolphins, Indians have sacred cows, and animal-rights activists object to slaughterhouses. Such a scenario would result in dim prospects for reducing trade barriers.

Reducing the Cost for Those Harmed

As highlighted previously, changes in trade policy cause gains for some individuals and losses for others. Generally speaking, high-skilled workers in the United States tend to benefit relative to low-skilled workers when trade barriers are reduced. Those suffering job losses as a result can incur income losses, reductions in health and pension benefits, costs associated with relocating, and the psychological costs of losing a job. The trade adjustment assistance program, which is administered by the U.S. Department of Labor, allows workers who lose their jobs because of increased imports to receive unemployment compensation for an additional period beyond that received by other displaced workers.[45] In addition, trade adjustment assistance recipients can also participate in retraining programs plus receive out-of-area job search allowances and moving expenses.

Among the arguments to justify the trade adjustment assistance program is that the program reduces workers' lobbying efforts against trade liberalization. Even if voters are motivated by their perceptions of collective well-being and not simply their own individual well-being, trade adjustment assistance might increase support for free trade by both those who gain and those who lose. In effect, as Magee (2001) found, trade adjustment assistance payments compensate workers for lost tariff protection.

Despite disagreeing on numerous items, the Democratic and Republican members on the U.S. Trade Deficit Review Commission (2000) agreed that more resources should be allocated to trade adjustment assistance programs. Such a position is consistent with the general public's opinion that the U.S. government should do more to help workers adapt to changes caused by international trade.[46] A more effective trade adjustment program is likely to generate an increased willingness to support trade liberalization.[47]

Another proposal to ameliorate the problems faced by displaced workers and reduce the opposition to trade liberalization is to provide wage insurance.[48] As noted by the U.S. Trade Deficit Review Commission, many displaced workers, especially those with much tenure, suffer not only during the period between jobs but also after they become reemployed. For example, the weekly earnings of all reemployed workers fell 5.7 percent on average during 1995-97. Those displaced from high-tenure jobs experienced a wage decline of over 20 percent. Wage insurance would provide earnings supplements for a set period to workers who become reemployed at a lower wage.

Proponents of wage insurance, such as Kletzer and Litan (2001), argue that it provides an incentive for workers to find a new job quickly as contrasted with unemployment insurance, which provides an incentive to delay looking for work. For younger workers, the quicker reemployment might make it easier for them to acquire training and new skills that will make them more employable and productive over their working lives. For older workers, the wage insurance might allow them to reach retirement without lowering their standard of living or altering their retirement plans. On the other hand, Schoepfle (2000) raises concerns about the potential costs of wage insurance.[49]

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[44] A similar statement pertains to certain labor groups.

[45] See Schoepfle (2000) for an overview of U.S. Department of Labor programs for dislocated workers and for a history of the trade adjustment assistance program since its passage in 1962.

[46] See University of Maryland (2000).

[47] Despite its political appeal, the effectiveness of the trade adjustment assistance program has been questioned. Decker and Corson (1995), Bohanon and Flowers (1998), and Marcal (2001) study the effectiveness of this program. See Richardson (2000a) for an identification of research relevant to redesigning labor-adjustment programs to increase their effectiveness.

[48] Job displacement can result from technological change, downsizing, restructuring, changes in demand, and changes in public policy (e.g., trade liberalization and environmental regulation).

[49] A proposal by Kletzer and Litan (2001) to provide wage insurance and health insurance subsidies for qualifying displaced workers upon reemployment was estimated to cost less than $4 billion. Obviously, the specifics of the program, such as who qualifies and the benefits provided, will affect the cost.

Expanding the Trade Agenda

During recent years many have argued that policymakers should expand the agenda for trade negotiations occurring under the World Trade Organization (WTO) and other bodies. Prior negotiations have produced substantial reductions in tariff barriers. One result is that the remaining trade barriers are in the most sensitive industries and involve the most complex issues. As discussed previously, sentiment is strong for linking labor and environmental issues with trade negotiations. What is unclear is whether such changes would ultimately increase the prospects for liberalizing trade. Expanding the agenda might provide negotiators with more opportunities for compromise; however, expanding the agenda might also bog down negotiations by introducing issues upon which compromise is very difficult. In fact, many have come to the conclusion that expanding the trade agenda would be detrimental to liberalizing trade in the United States and throughout the world.

A discussion by Brown (2000) highlights some of the challenges of linking labor standards with trade standards in the WTO.[50] The priorities of member countries are unlikely to coincide with each other or with the WTO. For example, the United States argues for rigorously enforcing high labor standards. On the other hand, developing countries desire minimal standards and enforcement because they fear the standards will provide a cover for protectionism. Meanwhile, the WTO may resist enforcing labor standards because they are not related to their original mission of fostering free trade. The bottom line is that such a linkage is not a promising approach for generating gains from trade.

Richardson (2000b) argues that the inclusion of a targeted set of "market-supportive" new issues offers a promising way to propel multilateral trade negotiations. In his view, expanding the negotiations to cover selected competition, technology, and labor policies would increase support by small businesses, technology users, and workers throughout the world. Moreover, such an expansion would increase the effectiveness of the market system.[51] Thus, both market enthusiasts and society "win." In a comment on Richardson's paper, Maskus (2000) raises the fundamental question as to whether the pressures arising from those concerned about the environment, labor rights, the impact of technological change, and globalization can be accommodated in a way that would allow the WTO to be effective.

Irwin (2000) answers this question negatively and, furthermore, expresses fears that both friends and foes of the WTO are pushing for changes in the organization's agenda that will prove detrimental to liberalizing trade. Friends would like to see the WTO expand its scope to set rules on various new trade issues—investment policy, competition policy, and electronic commerce, to name a few. Foes would like to see the WTO deal with labor and environmental regulations.[52] Irwin feels that expanding the agenda is a recipe for inertia and, even worse, will create "an international regulatory bureaucracy in Geneva that will provide full employment for trade lawyers rather than truly open up markets" (p. 355). A far better course would be for the WTO to focus on reducing border measures, especially those disrupting the free flow of agricultural and textile products.

Despite the concerns of Irwin and others, some business leaders in the United States appear to be softening their opposition to embedding social agendas in trade agreements.[53] Cooper (2001) reports that in a January 3, 2001, letter to Charlene Barshefsky, then U.S. Trade Representative, Caterpillar Inc. Chief Executive Glen Barton argued that labor and environmental standards were appropriate topics as part of future multilateral negotiations. Moreover, currently the Bush administration is searching for a way to respond to environmental protection and labor concerns during trade negotiations without allowing these issues to be used for protectionist purposes.

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[50] See Esty (2001) for a discussion of bridging the gap between free traders and environmentalists.

[51] Richardson's subset of competition policies includes universal commitment to baseline disciplines concerning cartels, mergers, and anti-competitive behavior. The subset of technology policies includes distribution-oriented refinements in the WTO's intellectual property and trade-related investment agreements. The subset of labor policies includes worker agency services, specifically freedom for agents to bargain collectively on behalf of worker associations.

[52] Srinivasan (2000, p. 25) characterizes these opponents of free trade as the "unholy alliance of protectionists." This alliance consists of "industrial labor unions in rich countries, such as the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), masquerading as champions of the welfare and rights of workers (particularly child and female workers) in emerging countries, naive do-gooders who may be genuinely concerned with the welfare of children, and misguided environmentalists."

[53] Throughout the second half of the 1990s, U.S. involvement in trade negotiations has been hamstrung by Republican and Democratic conflict over linking free trade with labor and environmental standards. This political divide reflects business opposition and labor/environmental group support for linking trade negotiations with social issues.

CONCLUSION

The economic case for free trade is compelling for nearly all economists. Free trade policies enable free market forces to allocate resources to their most productive activities. This allows a nation to maximize the value of the goods and services produced within its borders. Free trade also allows consumers to allocate their incomes to maximize the value of the goods and services that they purchase and consume. Numerous models also suggest that the growth prospects of a nation are improved by using free trade policies. Moreover, the findings of empirical studies reinforce economic theory.

Despite these economic benefits, free trade policies are opposed by a large percentage of the U.S. public. The opposition consists of various groups, such as protectionists, labor unions, environmentalists, human rights activists, and economic nationalists. Clearly, the implementation of trade policies creates winners and losers. Not surprisingly, potential losers oppose free trade policies. Moreover, some oppose free trade because of their recognition that others will lose. This clash suggests that many in the general public differ from economists in how they weigh the costs and benefits of free trade policies. Others oppose free trade because of concerns that free trade contributes to the abuse of workers throughout the world, as well as to environmental degradation. Thus, these individuals will oppose reductions in trade barriers until these issues are addressed.

In view of the potential gains of free trade, an important question is how to reduce the opposition to free trade. A first step would be increased education concerning the benefits of free trade. Such a step is not controversial; however, to date, economists have been only moderately successful in spreading this good news to a large audience. Illustrating the gains from free trade using concrete and personal examples, as opposed to theoretical arguments, is one suggestion for convincing a larger audience.

A second step involves reducing the cost to the losers from free trade. A standard view is that the costs of liberalizing trade fall disproportionately upon less-skilled workers. Trade adjustment assistance is one policy option that has generated much political support. A more controversial policy is wage insurance. Questions about the cost-effectiveness of both policies, especially the latter, have been raised.

The most controversial step is to attempt to increase political support for free trade by expanding the issues covered in trade negotiations. Many Americans have real demands that the well-being of workers be safeguarded in developing countries and that the environment be protected. Whether these demands can be best served by linking them to trade agreements is controversial. Arguably, there are better ways to resolve many of these issues. The inclusion of labor and environmental issues in trade negotiations, as well as other issues, may or may not increase domestic political support. However, even if the inclusion of these other issues generated additional domestic support for free trade, it would not necessarily ensure success in negotiations to reduce trade barriers: foreign opposition to the inclusion of these issues, especially in developing countries, might negate any newly gained domestic support.

The fact that highly controversial steps are being suggested as necessary to propel trade negotiations points to one clear fact. Just as there are no quick fixes for the social issues that are increasingly linked to trade issues, there is no quick fix for generating political support for one of the few things that most economists agree upon—a nation's economic well-being is best served by free trade.

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