Chapter 11

Evaluating the Controversy between Free Trade and Protectionism

Perhaps the most important policy issue of an international trade course is to answer the question "Should a country pursue free trade or some type of selected protection?" Academics, philosophers, policy analysts, and legislators have addressed this question for hundreds of years. And unfortunately, there is still no definitive answer.

The reason is that both free trade and selected protection have both positive and negative aspects. No one policy choice is clearly superior. Nonetheless, economists who have studied trade theory and policy tend to support free trade more so than just about any other contentious economic policy under public consideration. The reasons for this near consensus are complex and poorly understood by the general public. This chapter explains the economic case for free trade through the lens of trade theory and argues that even though free trade may not be "optimal," it is nonetheless the most pragmatic policy option a country can follow.

11.1 Introduction

For hundreds of years, at least since Adam Smith's publication of *The Wealth of Nations*, the majority of economists have been strong supporters of free trade among nations. Paul Krugman once wrote that if there were an economist's creed, it would surely contain the affirmation, "I advocate free trade."See Paul Krugman, "Is Free Trade Passe?" *Journal of Economic Perspectives* 1, no. 2 (1987): 131–44.

The original arguments for free trade began to supplant mercantilist views in the early to mid-eighteenth century. Many of these original ideas were based on simple exchange or production models that suggested that free trade would be in everyone's best interests and surely in the national interest. During the nineteenth and twentieth centuries, however, a series of objections were raised suggesting that free trade was not in everyone's interest and perhaps was not even in the national interest. The most prominent of these arguments included the infant industry argument, the terms of trade argument, arguments concerning income redistribution, and more recently, strategic trade policy arguments. Although each of these arguments might be thought of as weakening the case for free trade, instead, each argument brought forth a series of counterarguments that have acted to reassert the position of free trade as a favored policy despite these objections. The most important of these counterarguments include the potential for retaliation, the theory of the second best, the likelihood of incomplete or imperfect information, and the presence of lobbying in a democratic system.

What remains today is a modern, sophisticated argument in support of free trade among nations. It is an argument that recognizes that there are numerous exceptions to the notion that free trade is in everyone's best interests. The modern case for free trade does not contend, however, that these exceptions are invalid or illogical. Rather, it argues that each exception supporting government intervention in the form of a trade policy brings with it additional implementation problems that are likely to make the policy impractical.

Before presenting the modern argument, however, it is worth deflecting some of the criticisms that are sometimes leveled against the economic theory of free trade.

For example, the modern argument for free trade is not based on a simplistic view that everyone benefits from free trade. Indeed, trade theory, and experience in the real world, teaches us that free trade, or trade liberalization, is likely to generate losers as well as winners.

The modern argument for free trade is not based on unrealistic assumptions that lead to unrealistic conclusions. Although it is true that many assumptions contained within any given trade model do not accurately reflect many realistic features of the world, the modern argument for free trade is not based on the results from any *one* model. Instead, the argument is based on a collection of results from numerous trade models, which are interpreted in reference to realistic situations. If one considers the collection of all trade models jointly, it is much more difficult to contend that they miss realistic features of the world. Trade theory (as a collection of models) does consider imperfectly competitive markets, dynamic effects of trade, externalities in production and consumption, imperfect information, joint production, and many other realistic features. Although many of these features are absent in any one model, they are not absent from the joint collection of models, and it is this "extended model" that establishes the argument for free trade.Ideally, we would create a supermodel of the world economy that simultaneously incorporates all realistic features of the world and avoids what are often called "simplifying assumptions." Unfortunately, this is not a realistic possibility. As anyone who has studied models of the economy knows, even models that are very simple in structure can be extremely difficult to comprehend, much less solve. As a result, we are forced to "interpret" the results of simple models as we apply them to the complex real world.

KEY TAKEAWAY

- The modern support for free trade by most economists is based on a collection of results from a collection of models that incorporate many realistic features of the world into the analysis.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. The statement suggested by Paul Krugman as being an element of the economist's creed—if ever there were such a thing.
    b. This is who will benefit from free trade according to a simplistic view held by some free trade advocates.
    c. This is what causes unrealistic conclusions in trade theory according to some free trade opponents.
    d. The conclusions of *one* model of international trade or *many* models of international trade are best used to make trade policy prescriptions.

11.2 Economic Efficiency Effects of Free Trade

LEARNING OBJECTIVE
1. Learn the major source of support for free trade across a variety of trade models.

The main source of support for free trade lies in the positive production and consumption efficiency effects. In every model of trade, there is an improvement in aggregate production and consumption efficiency when an economy moves from autarky to free trade. This is equivalent to saying that there is an increase in national welfare. This result was demonstrated in the Ricardian model, the immobile factor model, the specific factor model, the Heckscher-Ohlin model, the simple economies-of-scale model, and the monopolistic competition model. The result can also be shown if there are differences in demand between countries. Each of these models shows that a country is likely to have greater national output and superior choices available in consumption as a result of free trade.

Production Efficiency

Improvements in production efficiency mean that countries can produce more goods and services with the same amount of resources. In other words, productivity increases for the given resource endowments available for use in production.

In order to achieve production efficiency improvements, resources must be shifted between industries within the economy. This means that some industries must expand while others contract. Exactly which industries expand and contract will depend on the underlying stimulus or basis for trade. Different trade models emphasize different stimuli for trade. For example, the Ricardian model emphasizes technological differences between countries as the basis for trade, the factor proportions model emphasizes differences in endowments, and so on. In the real world, it is likely that each of these stimuli plays some role in inducing the trade patterns that are observed.

Thus as trade opens, either the country specializes in the products in which it has a comparative technological advantage, or production is shifted to industries that use the country's relatively abundant factors most intensively, or production is shifted to products in which the country has relatively less demand compared with the rest

of the world, or production shifts to products that exhibit economies of scale in production.

If production shifts occur for any of these reasons, or for some combination of these reasons, then trade models suggest that total production would rise. This would be reflected empirically in an increase in the country's gross domestic product (GDP). This means that free trade would cause an increase in the level of the country's national output and income.

Consumption Efficiency

Consumption efficiency improvements arise for an individual when changes in the relative prices of goods and services allow the consumer to achieve a higher level of utility. Since the change in prices alters the choices a consumer has, we can say that consumption efficiency improvements imply that more satisfying choices become available. When multiple varieties of goods are available in a product category, as in the monopolistic competition model, then consumption efficiency improvements can mean that the consumer is able to consume greater varieties or is able to purchase a variety that is closer to his ideal.

Although improvements in consumption efficiency are easy to describe for an individual consumer, it is much more difficult to describe consumption efficiency conceptually for the aggregate economy. Nevertheless, when aggregate indifference curves are used to describe the gains from trade, it is possible to portray an aggregate consumption efficiency improvement. One must be careful to interpret this properly, though. The use of an aggregate indifference curve requires the assumptions that (1) all consumers have identical preferences and (2) there is no redistribution of income as a result of the changes in the economy. We have seen, however, that in most trade models income redistribution will occur as an economy moves to free trade, and it may be impossible to redistribute afterward. It is also likely that individuals have different preferences for goods, which also weakens the results using aggregate indifference curves.

KEY TAKEAWAYS

- The main sources of support for free trade are the positive production and consumption efficiency effects that arise in numerous models when countries trade freely.
- Production efficiency improvements mean that countries produce more goods and services with the same amount of resources.
- Consumption efficiency improvements mean that countries consume a more satisfying mix of goods and services.

EXERCISE

1. **Jeopardy Questions**. As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

    a. The term often used as a synonym for an improvement in economic efficiency.
    b. The type of efficiency improvement in which productivity rises for the given resource endowments available for use in production.
    c. The type of efficiency improvement relating to consumer choice adjustments in response to a policy change.
    d. The enhancement of *this* is what many economic models show will arise by moving to free trade.

11.3 Free Trade and the Distribution of Income

A valid criticism of the case for free trade involves the issue of income distribution. Although most trade models suggest that aggregate economic efficiency is raised with free trade, these same models do not indicate that every individual in the economy will share in the benefits. Indeed, most trade models demonstrate that movements to free trade will cause a redistribution of income between individuals within the economy. In other words, some individuals will gain from free trade while others will lose. This was seen in the immobile factor model, the specific factor model, the Heckscher-Ohlin model, and the partial equilibrium analysis of trade liberalization.

There have been two general responses by economists concerning the income distribution issue. Some have argued that the objective of economics is solely to determine the most efficient policy choices. Introductory textbooks often suggest that the objective of the economics discipline is to determine how to allocate scarce resources toward production and consumption. Economists describe an allocation as "optimal" when it achieves the maximum level of aggregate economic efficiency. Put in these terms, economic analysis is "positive" in nature. Positive economics refers to studies that seek to answer questions pertaining to how things work in the economy and the subsequent effects. Positive economic analysis does not intend to explain what "should" be done. Issues pertaining to income distribution are commonly thought of as "normative" in nature, in that the concern is often over what the distribution "should" be. If we apply this reasoning to international trade, then, issues such as the appropriate income distribution are beyond the boundaries of the discipline and should be left to policymakers, government officials, or perhaps philosophers to determine.

Perhaps a more common response by economists concerning the income distribution issue is to invoke the compensation principle. A substantial amount of work by economists has been done to show that because free trade causes an increase in economic efficiency, it is generally possible to redistribute income from

the winners to the losers such that, in the end, every individual gains from trade. The basic reason this is possible is that because of the improvement in aggregate efficiency, the sum of the gains to the winners exceeds the sum of the losses to the losers. This implies that it is theoretically possible for the potential winners from free trade to bribe the losers and leave everyone better off as a result of free trade. This allows economists to argue that free trade, coupled with an appropriate compensation package, is preferable to some degree of protectionism.

One major practical problem with compensation, however, is the difficulty of implementing a workable compensation package. In order to achieve complete compensation, one must be able to identify not only who the likely winners and losers will be but also how much they will win and lose and when in time the gains and losses will accrue. Although this is relatively simple to do in the context of a single trade model, such as the Heckscher-Ohlin model, it would be virtually impossible to do in practice given the complexity of the real world. The real world consists of tens of thousands of different industries producing millions of products using thousands of different factors of production. The sources of trade are manifold, including differences in technology, endowments, and demands, as well as the presence of economies of scale. Each source of trade, in turn, stimulates a different pattern of income redistribution when trade liberalization occurs. In addition, the pattern of redistribution over time is likely to be affected by the degree of mobility of factors between industries as the adjustment to free trade occurs. This was seen in the context of simple trade models, from the immobile factor model to the specific factor model to the Heckscher-Ohlin model.

Even in the context of simple trade models, a workable compensation mechanism is difficult to specify. An obvious solution would seem to be for the government to use taxes and subsidies to facilitate compensation. For example, the government could place taxes on those who would gain from free trade (or trade liberalization) and provide subsidies to those who would lose. However, if this were implemented in the context of many trade models, then the taxes and subsidies would change the production and consumption choices made in the economy and would act to reduce or eliminate the efficiency gains from free trade. The government taxes and subsidies, in this case, represent a policy-imposed distortion that, by itself, reduces aggregate economic efficiency. If the compensation package reduces efficiency more than the movement to free trade enhances efficiency, then it is possible for the nation to be worse off in free trade when combined with a tax/subsidy redistribution scheme.Dixit and Norman (1980) showed that under some conditions it is possible to specify a tax and subsidy policy that would guarantee an increase in aggregate economic efficiency with free trade. See A. Dixit and V. Norman, *Theory of International Trade: A Dual General Equilibrium Approach* (Cambridge: Cambridge University Press, 1980). The simple way to eliminate this problem, conceptually, is to suggest that the redistribution take place as a "lump-sum" redistribution. A

lump-sum redistribution[1] is one that takes place after the free trade equilibrium is reached—that is, after all production and consumption decisions are made but before the actual consumption takes place. Then, as if in the middle of the night when all are asleep, goods are taken away from those who have gained from free trade and left at the doors of those who had lost. Lump-sum redistributions are analogous to Robin Hood stealing from the rich and giving to the poor. As long as this redistribution takes place after the consumption choices have been made and without anyone expecting a redistribution to occur, then the aggregate efficiency improvements from free trade are still realized. Of course, although lump-sum redistributions are a clever conceptual or theoretical way to "have your cake and eat it too," it is not practical or workable in the real world.

This implies that although compensation can solve the problem of income redistribution at the theoretical level, it is unlikely that it will ever solve the problem in the real world. Although some of the major gains and losses from free trade may be identifiable and quantifiable, it is unlikely that analysts would ever be able to identify all who would gain and lose in order to provide compensation and assure that everyone benefits. This means that free trade is extremely likely to cause uncompensated losses to some individuals in the economy. To the extent that these individuals expect these losses and can measure their expected value (accurately or not), then there will also likely be continued resistance to free trade and trade liberalization. This resistance is perfectly valid. After all, trade liberalization involves a government action that will cause injury to some individuals for which they do not expect to be adequately compensated. Furthermore, the economic efficiency argument will not go very far to appease these groups. Would you accept the argument that your expected losses are justifiable because others will gain more than you lose?

One final argument concerning the compensation issue is that compensation to the losers may not even be justifiable. This argument begins by noting that those who would lose from free trade are the same groups who had gained from protectionism. Past protectionist actions represent the implementation of government policies that had generated benefits to certain selected groups in the economy. When trade liberalization occurs, then, rather than suggesting that some individuals lose, perhaps it is more accurate to argue that the special benefits are being eliminated for those groups. On the other hand, those groups that benefit from free trade are the same ones that had suffered losses under the previous regime of protectionism. Thus their gains from trade can be interpreted as the elimination of previous losses. Furthermore, since the previous protectionist actions were likely to have been long lasting, one could even argue that the losers from protection (who would gain from free trade) deserve to be compensated for the sum total of their past losses. This would imply that upon moving to free trade, a redistribution ought to be made not from the winners in trade to the losers but

1. A redistribution of income that takes place after the free trade equilibrium is reached—that is, after all production and consumption decisions are made but before the actual consumption takes place.

from the losers in trade to the winners. Only in this way could one make up for the transgressions of the past. As before, though, identifying who lost and who gained and by how much would be virtually impossible to achieve, thus making this compensation scheme equally unworkable.

KEY TAKEAWAYS

- One major problem with movements to free trade is the redistribution of income described in many trade models. This means that although some individuals will benefit from free trade, many others will lose.
- One way to deflect the redistribution concern is to argue that economic analysis provides the positive results of trade policies and is not intended to answer the normative questions of what should be done.
- Another way to deflect the concern about income redistribution is to support compensation from the winners to the losers to assure that all parties benefit from free trade.
- Because compensation requires an enormous amount of information about who wins and loses from trade, how much they win and lose, and when they win and lose, it is impractical to impossible to completely compensate the losers from free trade in a real-world setting.

EXERCISE

1. **Jeopardy Questions.** As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

   a. A principle that, if applied in practice, could eliminate the negative impacts of income redistribution that may arise with free trade.
   b. This is what many trade models show will happen to national income because of trade liberalization.
   c. This type of compensation can avoid affecting consumption and production decisions.
   d. The compensation using these two government policies is likely to affect production and consumption decisions.
   e. The name of the mythical character best associated with lump-sum compensation.
   f. Of *a little* or *a lot*, this is how much information the government needs to make compensation effective.

11.4 The Case for Selected Protection

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LEARNING OBJECTIVE

1. Identify the cases in which the implementation of selected protectionism, targeted at particular industries with particular goals in mind, could raise national welfare.

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An argument for **selected protection**[2] arises in the presence of imperfectly competitive markets, market distortions, or both. In these cases, it is often possible to show that an appropriately targeted trade policy (selected protection) can raise aggregate economic efficiency. In other words, free trade need not always be the best policy choice when the objective is to maximize national welfare. Numerous examples found in the trade literature demonstrate that selected protectionism applied under certain circumstances can raise national welfare. These results are in contrast with the standard trade models, which show that free trade is the best policy to maximize economic efficiency. The reason for the conflict is that the standard trade models, in most cases, explicitly assume that markets are perfectly competitive and implicitly assume there are no market distortions.

This general criticism of the standard case for free trade begins by noting that the real world is replete with examples of market imperfections and distortions. These include the presence of externalities both static and dynamic, both positive and negative, and in both production and consumption; markets in which production takes place with monopolistic or oligopolistic firms making positive profits; markets that do not clear, as when unemployment arises; the presence of public goods; the presence of imperfect or asymmetric information; the presence of distorting government policies and regulations; and the presence of national market power in international markets. When these features are included in trade models, it is relatively easy to identify trade policies that can sufficiently correct the market imperfection or distortion so as to raise aggregate efficiency.

2. A trade policy that is appropriately selected so as to raise national welfare in a market containing market imperfections or distortions.

For example, an optimal tariff or optimal quota set by a country that is large in an international import market can allow the nation to take advantage of its monopsony power in trade and cause an increase in national welfare. Similarly, an optimal export tax or voluntary export restraint (VER) set by a large country in an international export market will allow it to take advantage of its monopoly power in trade and generate an increase in welfare. This argument for protection is known as the "terms of trade argument."

A tariff applied to protect an import-competing industry from a surge in foreign imports may reduce or eliminate the impending unemployment in the industry. If the cost of unemployment to the affected workers is greater than the standard net national welfare effect of the tariff, then the tariff may improve national welfare.

A tariff used to restrict imports of goods from more-efficient foreign firms may sufficiently stimulate learning effects within an industry to cause an increase in productivity that, in time, may allow the domestic firms to compete with foreign firms—even without continued protection. These learning effects—in organizational methods, in management techniques, in cost-cutting procedures—might in turn spill over to other sectors in the economy, stimulating efficiency improvements in many other industries. All together, the infant industry protection may cause a substantial increase in the growth of the gross domestic product (GDP) relative to what might have occurred otherwise and thus act to improve national welfare.

A tariff used to stimulate domestic production of a high-technology good might spill over to the research and development division and cause more timely innovations in next-generation products. If these firms turn into industry leaders in these next-generation products, then they will enjoy the near-monopoly profits that accrue to the original innovators. As long as these long-term profits outweigh the short-term costs of protection, national welfare may rise.

An import tariff applied against a foreign monopoly supplying the domestic market can effectively shift profits from the foreign firm to the domestic government. Despite the resulting increase in the domestic price, national welfare may still rise. Also, export subsidies provided to domestic firms that are competing with foreign firms in an oligopoly market may raise domestic firms' profits by more than the cost of the subsidy, especially if profits can be shifted away from the foreign firms. These two cases are examples of a strategic trade policy.

If pollution, a negative production externality, caused by a domestic import-competing industry is less than the pollution caused by firms in the rest of the world, then a tariff that restricts imports may sufficiently raise production by the domestic firm relative to foreign firms and cause a reduction in world pollution. If the benefits that accrue due to reduced worldwide pollution are greater than the standard cost of protection, then the tariff will raise world welfare.

Alternatively, if pollution is caused by a domestic export industry, then an export tax would reduce domestic production along with the domestic pollution that the production causes. Although the export tax may act to raise production and pollution in the rest of the world, as long as the domestic benefits from the

pollution reduction outweigh the costs of the export tax, domestic national welfare may rise.

If certain domestically produced high-technology goods could wind up in the hands of countries that are our potential enemies, and if these goods would allow those countries to use the products in a way that undermines our national security, then the government could be justified to impose an export prohibition on those goods to those countries. In this case, if free trade were allowed in these products, it could reduce the provision of a public good, namely, national security. As long as the improvement in national security outweighs the cost of the export prohibition, national welfare would rise.

These are just some of the examples (many more are conceivable) in which the implementation of selected protectionism, targeted at particular industries with particular goals in mind, could act to raise national welfare, or aggregate economic efficiency. Each of these arguments is perfectly valid conceptually. Each case arises because of an assumption that some type of market imperfection or market distortion is present in the economy. In each case, national welfare is enhanced because the trade policy reduces or eliminates the negative effects caused by the presence of the imperfection or distortion and because the reduction in these effects can outweigh the standard efficiency losses caused by the trade policy.

It would seem from these examples that a compelling case can certainly be made in support of selected protectionism. Indeed, Paul Krugman (1987) wrote that "the case for free trade is currently more in doubt than at any time since the 1817 publication of [David] Ricardo's *Principles of Political Economy*."See Paul Krugman, "Is Free Trade Passe?" *Journal of Economic Perspectives* 1, no. 2 (1987): 131–44. Many of the arguments showing the potential for welfare-improving trade policies described above have been known for more than a century. The infant industry argument can be traced in the literature as far back as a century before Adam Smith argued against it in *The Wealth of Nations* (1776). The argument was later supported by writers such as Friedrich List in *The National System of Political Economy* (1841)See Friedrich List, *The National System of Political Economy*, McMaster University Archive for the History of Economic Thought, http://socserv2.socsci.mcmaster.ca:80/~econ/ugcm/3ll3/list/index.html. and John Stuart Mill in his *Principles of Political Economy* (1848).See John Stuart Mill, *Principles of Political Economy*, McMaster University Archive for the History of Economic Thought, http://socserv2.socsci.mcmaster.ca:80/~econ/ugcm/3ll3/mill/index.html. The terms of trade argument was established by Robert Torrens in 1844 in *The Budget: On Commercial and Colonial Policy*.See Robert Torrens, *The Budget: On Commercial and Colonial Policy* (London: Smith, Elder, 1844). Frank Graham, in his 1923 article "Some Aspects of Protection Further Considered," noted the possibility that free trade would reduce welfare if there were variable returns to scale in

production.See Frank Graham, "Some Aspects of Protection Further Considered," *The Quarterly Journal of Economics* 37, no. 2 (February 1923): 199–227. During the 1950s and 1960s, market distortions such as factor-market imperfections and externality effects were introduced and studied in the context of trade models. The strategic trade policy arguments are some of the more recent formalizations showing how market imperfections can lead to welfare-improving trade policies. Despite this long history, economists have generally continued to believe that free trade is the best policy choice. The main reason for this almost unswerving support for free trade is because as arguments supporting selected protectionism were developed, equally if not more compelling counterarguments were also developed.

KEY TAKEAWAYS

- In the presence of market imperfections or distortions, selected protection can often raise a country's national welfare.
- Because real-world markets are replete with market imperfections and distortions, free trade is not the optimal policy to improve national welfare.

EXERCISES

1. **Jeopardy Questions**. As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

   a. The term used to describe market conditions that open up the possibility for welfare-improving trade policies.
   b. The term used to describe a market equilibrium in which market imperfections or distortions are present.
   c. Of *very many* or *very few*, this is the amount of market imperfections likely to be present in modern national economies.
   d. Of *true* or *false*, a tariff can raise a nation's welfare when it is a large importing country.
   e. Of *true* or *false*, a tariff can raise national welfare in the presence of an infant industry.
   f. Of *true* or *false*, a tariff can raise national welfare if all markets are perfectly competitive and if there are no market imperfections or distortions.

2. Identify a trade policy that can potentially raise national welfare in each of the following situations.

   a. When a foreign monopoly supplies the domestic market with no import-competing producers.
   b. When a domestic negative production externality is caused by a domestic industry that exports a portion of its production to the rest of the world.
   c. When a positive production externality is caused by a domestic industry that competes with imports.
   d. When a domestic negative consumption externality is caused by domestic consumers in a market in which the country exports a portion of its production to the rest of the world.
   e. When a country is large in an export market.

11.5 The Economic Case against Selected Protection

LEARNING OBJECTIVE

1. Learn the valid counterarguments to the use of selected protection when market imperfections or distortions are present.

The economic case against selected protectionism does not argue that the reasons for protection are conceptually or theoretically invalid. Indeed, there is general acceptance among economists that free trade is probably not the best policy in terms of maximizing economic efficiency in the real world. Instead, the counterarguments to selected protectionism are based on four broad themes: (1) potential reactions by others in response to one country's protection, (2) the likely presence of superior policies to raise economic efficiency relative to a trade policy, (3) information deficiencies that can inhibit the implementation of appropriate policies, and (4) problems associated with lobbying within democratic political systems. We shall consider each of these issues in turn.

The Potential for Retaliation

One of the problems with using some types of selected protection arises because of the possibility of retaliation by other countries using similar policies. For example, it was shown that whenever a large country in the international market applies a policy that restricts exports or imports (optimally), its national welfare will rise. This is the terms of trade argument supporting protection. However, it was also shown that the use of an optimal trade policy in this context always reduces national welfare for the country's trade partners. Thus the use of an optimal tariff, export tax, import quota, or voluntary export restraint (VER) is a "beggar-thy-neighbor" policy—one country benefits only by harming others. For this reason, it seems reasonable, if not likely, that the countries negatively affected by the use of such policies, if they are also large in international markets, would retaliate by setting optimal trade policies restricting their exports and imports to the rest of the world. In this way, the retaliating country could generate benefits for itself in some markets to compensate for its losses in others.

However, the final outcome after retaliation occurs is very likely to be a reduction in national welfare for both countries.Harry Johnson (1953) showed the possibility that one country might still improve its national welfare even after a trade war (i.e., optimal protection followed by optimal retaliation); however, this seems an

unlikely outcome in real-world cases. Besides, even if one country did gain, it would still do so at the expense of its trade partners, which remains an unsavory result. See Harry G. Johnson, "Optimum Tariffs and Retaliation," *Review of Economic Studies* 21, no. 2 (1953): 142–53. This occurs because each trade policy action results in a decline in world economic efficiency. The aggregate losses that accrue to one country as a result of the other's trade policy will always exceed the benefits that accrue to the policy-setting country. When every large country sets optimal trade policies to improve its terms of trade, the subsequent reduction in world efficiency dominates any benefits that accrue due to its unilateral actions.

What this implies is that although a trade policy can be used to improve a nation's terms of trade and raise national welfare, it is unlikely to raise welfare if other large countries retaliate and pursue the same policies. Furthermore, retaliation seems a likely response because maintenance of a free trade policy in light of your trade partner's protection would only result in national aggregate efficiency losses.Indeed, Robert Torrens, the originator of the terms of trade argument, was convinced that a large country should maintain protective barriers to trade when its trade partners maintained similar policies. The case for unilateral free trade even when one's trade partners use protective tariffs is only valid when a country is small in international markets.

Perhaps the best empirical support for this result is the experience of the world during the Great Depression of the 1930s. After the United States imposed the Smoot-Hawley Tariff Act of 1930, raising its tariffs to an average of 60 percent, approximately sixty countries retaliated with similar increases in their own tariff barriers. As a result, world trade in the 1930s fell to one-quarter of the level attained in the 1920s. Most economists agree that these tariff walls contributed to the length and severity of the economic depression. That experience also stimulated the design of the reciprocal trade liberalization efforts embodied in the General Agreement on Tariffs and Trade (GATT).

The issue of retaliation also arises in the context of strategic trade policies. In these cases, a trade policy can be used to shift profits from foreign firms to the domestic economy and raise domestic national welfare. The policies work in the presence of monopolistic or oligopolistic markets by raising the international market share for one's own firms. The benefits to the policy-setting country arise only by reducing the profits of foreign firms and subsequently reducing those countries' national welfare.One exception arises in the model by J. Eaton and G. Grossman, "Optimal Trade and Industrial Policy under Oligopoly," *Quarterly Journal of Economics* 101, no. 2 (1986): 383–406. Thus one country's gains are other country's losses, and strategic trade policies can rightfully be called beggar-thy-neighbor policies. Since foreign firms would lose from our country's policies, as before, it is reasonable to expect retaliation by the foreign governments. However, because these policies essentially

just reallocate resources among profit-making firms internationally, it is unlikely for a strategic trade policy to cause an improvement in world economic efficiency. This implies that if the foreign country did indeed retaliate, the likely result would be reductions in national welfare for both countries.

Retaliations would only result in losses for both countries when the original trade policy does not raise world economic efficiency. However, some of the justifications for protection that arise in the presence of market imperfections or distortions may actually raise world economic efficiency because the policy acts to eliminate some of the inefficiencies caused by the distortions. In these cases, retaliation would not pose the same problems. There are other problems, though.

The Theory of the Second Best

One of the more compelling counterarguments to potentially welfare-improving trade policies relies on the theory of the second best. This theory shows that when private markets have market imperfections or distortions present, it is possible to add another (carefully designed) distortion, such as a trade policy, and improve economic efficiency both domestically and worldwide. The reason for this outcome is that the second distortion can correct the inefficiencies of the first distortion by more than the inefficiencies caused by the imposed policy. In economist's jargon, the original distorted economy is at a second-best equilibrium. In this case, the optimal trade policy derived for an undistorted economy (most likely free trade) no longer remains optimal. In other words, policies that would reduce national welfare in the absence of distortions can now improve welfare when there are other distortions present.

This argument, then, begins by accepting that trade policies (protection) can be welfare improving. The problem with using trade policies, however, is that in most instances they are a second-best policy choice. In other words, there will likely be another policy—a domestic policy—that could improve national welfare at a lower cost than any trade policy. The domestic policy that dominates would be called a first-best policy. The general rule used to identify first-best policies is to use that policy that "most directly" attacks the market imperfection or distortion. It turns out that these are generally domestic production, consumption, or factor taxes or subsidies rather than trade policies. The only exceptions occur when a country is large in international markets or when trade goods affect the provision of a public good such as national security.

Thus the counterargument to selected protection based on the theory of the second best is that first-best rather than second-best policies should be chosen to correct market imperfections or distortions.

Since trade policies are generally second best while purely domestic policies are generally first best, governments should not use trade policies to correct market imperfections or distortions. Note that this argument does not contend that distortions or imperfections do not exist, nor does it assume that trade policies could not improve economic efficiency in their presence. Instead, the argument contends that governments should use the most efficient (least costly) method to reduce inefficiencies caused by the distortions or imperfections, and this is unlikely to be a trade policy.

Note that this counterargument to protection is also effective when the issue is income distribution. Recall that one reason countries may use trade policies is to achieve a more satisfying income distribution (or to avoid an unsatisfactory distribution). However, it is unlikely that trade policies would be the most effective method to eliminate the problem of an unsatisfactory income distribution. Instead, there will likely be a purely domestic policy that could improve income distribution more efficiently.

In the cases where a trade policy is first best, as when a country is large in international markets, this argument does not act as a counterargument to protection. However, retaliation remains a valid counterargument in many of these instances.

Information Deficiencies

The next counterargument against selected protectionism concerns the likely informational constraints faced by governments. In order to effectively provide infant industry protection, or to eliminate negative externality effects, stimulate positive externality effects, or shift foreign profits to the domestic economy, the government would need substantial information about the firms in the market, their likely cost structures, supply and demand elasticities indicating the effects on supply and demand as a result of price changes, the likely response by foreign governments, and much more. Bear in mind that although it was shown that selected protection *could* generate an increase in national welfare, it does not follow that any protection would *necessarily* improve national welfare. The information requirements arise at each stage of the government's decision-making process.

First, the government would need to identify which industries possess the appropriate characteristics. For example, in the case of infant industries, the government would need to identify which industries possess the positive learning externalities needed to make the protection work. Presumably, some industries would generate these effects, while others would not. In the case of potential unemployment in a market, the government would need to identify in which

industries facing a surge of imports the factor immobility was relatively high. In the case of a strategic trade policy, the government would have to identify which industries are oligopolistic and exhibit the potential to shift foreign profits toward the domestic economy.

Second, the government would need to determine the appropriate trade policy to use in each situation and set the tariff or subsidy at the appropriate level. Although this is fairly straightforward in a simple theoretical model, it may be virtually impossible to do correctly in a real-world situation. Consider the case of an infant industry. If the government identified an industry with dynamic intertemporal learning effects, it would then need to measure how the level of production would influence the size of the learning effects in all periods in the future. It would also need to know how various tariff levels would affect the level of domestic production. To answer this requires information about domestic and foreign supply and demand elasticities. Of course, estimates of past elasticities may not work well, especially if technological advances or preference changes occur in the future. All of this information is needed to determine the appropriate level of protection to grant as well as a timetable for tariff reduction. If the tariff is set too low or for too short a time, the firms might not be sufficiently protected to induce adequate production levels and stimulate the required learning effects. If the tariff is set too high or for too long a period, then the firms might become lazy. Efficiency improvements might not be made and the learning effects might be slow in coming. In this case, the production and consumption efficiency losses from the tariff could outweigh the benefits accruing due to learning.

This same information deficiency problem arises in every example of selected protection. Of course, the government would not need pinpoint accuracy to assure a positive welfare outcome. As demonstrated in the case of optimal tariffs, there would be a range of tariff levels that would raise national welfare above the level attained in free trade. A similar range of welfare-improving protection levels would also hold in all the other cases of selected protection.

However, there is one other informational constraint that is even ignored in most economic analyses of trade policies. This problem arises when there are multiple distortions or imperfections present in the economy simultaneously (exactly what we would expect to see in the real world). Most trade policy analyses incorporate one economic distortion into a model and then analyze what the optimal trade policy would be in that context. Implicitly, this assumes either that there are no other distortions in the economy or that the market in which the trade policy is being considered is too small to have any external effects on other markets. The first assumption is clearly not satisfied in the world, while the second is probably not valid for many large industries.

The following example suggests the nature of the informational problem. Suppose there are two industries that are linked together because their products are substitutable in consumption to some degree. Suppose one of these industries exhibits a positive dynamic learning externality and is having difficulty competing with foreign imports (i.e., it is an infant industry). Assume the other industry heavily pollutes the domestic water and air (i.e., it exhibits a negative production externality). Now suppose the government decides to protect the infant industry with an import tariff. This action would, of course, stimulate domestic production of the good and also stimulate the positive learning effects for the economy. However, the domestic price of this good would rise, reducing domestic consumption. These higher prices would force consumers to substitute other products in consumption. Since the other industry's products are assumed to be substitutable, demand for that industry's goods will rise. The increase in demand would stimulate production of that good and, because of its negative externality, cause more pollution to the domestic environment. If the negative effects to the economy from additional pollution are greater than the positive learning effects, then the infant industry protection could reduce rather than improve national welfare.

The point of this example, however, is to demonstrate that in the presence of multiple distortions or imperfections in interconnected markets (i.e., in a general equilibrium model), the determination of optimal policies requires that one consider the intermarket effects. The optimal infant industry tariff must take into account the effects of the tariff on the polluting industry. Similarly, if the government wants to set an optimal environmental policy, it would need to account for the effects of the policy on the industry with the learning externality.

This simple example suggests a much more serious informational problem for the government. If the real economy has numerous market imperfections and distortions spread out among numerous industries that are interconnected through factor or goods market competition, then to determine the true optimal set of policies that would correct or reduce all the imperfections and distortions simultaneously would require the solution to a dynamic general equilibrium model that accurately describes the real economy not only today but also in all periods in the future. This type of model, or its solution, is simply not achievable today with any high degree of accuracy. Given the complexity, it seems unlikely that we would ever be capable of producing such a model.

The implication of this informational problem is that trade policy will always be like a shot in the dark. There is absolutely no way of knowing with a high degree of accuracy whether any policy will improve economic efficiency. This represents a serious blow to the case for government intervention in the form of trade policies. If the intention of government is to set trade policies that will improve economic

efficiency, then since it is impossible to know whether any policy would actually achieve that goal, it seems prudent to avoid the use of any such policy. Of course, the goal of government may not be to enhance economic efficiency, and that brings us to the last counterargument against selected protection.

Political Economy Issues: The Problem with Democratic Processes

In democratic societies, government representatives and officials are meant to carry out the wishes of the general public. As a result, decisions by the government are influenced by the people they represent. Indeed, one of the reasons "free speech" is so important in democratic societies is to assure that individuals can make their attitudes toward government policies known without fear of reproach. Individuals must be free to inform the government of which policies they approve and of which they disapprove if the government is truly to be a representative of the people. The process by which individuals inform the government of their preferred policies is generally known as lobbying.

In a sense, one could argue that lobbying can help eliminate some of the informational deficiencies faced by governments. After all, much of the information the government needs to make optimal policies is likely to be better known by its constituent firms and consumers. Lobbying offers a process through which information can be passed from those directly involved in production and consumption activities to the officials who determine policies. However, this process may turn out to be more of a problem than a solution.

One of the results of trade theory is that the implementation of trade policies will likely affect income distribution. In other words, all trade policies will generate income benefits to some groups of individuals and income losses to other groups. Another outcome, though, is that the benefits of protection would likely be concentrated—that is, the benefits would accrue to a relatively small group. The losses from protection, however, would likely be dispersed among a large group of individuals.

This outcome was seen clearly in the partial equilibrium analysis of a tariff. When a tariff is implemented, the beneficiaries would be the import-competing firms, which would face less competition for their product, and the government, which collects tariff revenue. The losses would accrue to the thousands or millions of consumers of the product in the domestic economy.

For example, consider a tariff on textile imports being considered by the government of a small, perfectly competitive economy. Theory shows that the sum of the benefits to the government and the firms will be exceeded by the losses to

consumers. In other words, national welfare would fall. Suppose the beneficiaries of protection are one hundred domestic textile firms that would each earn an additional $1 million in profit as a result of the tariff. Suppose the government would earn $50 million in additional tariff revenue. Thus the total benefits from the tariff would be $150 million. Suppose consumers as a group would lose $200 million, implying a net loss to the economy of $50 million. However, suppose there are one hundred million consumers of the products. That implies that each individual consumer would lose only $2.

Now, if the government bases its decision for protection on input from its constituents, then it is very likely that protection will be granted even though it is not in the nation's best interest. The reason is that textile firms would have an enormous incentive to lobby government officials in support of the policy. If each firm expects an extra $1 million, it would make sense for the firms to hire a lobbying firm to help make their case before the government. The arguments to be used, of course, are (1) the industry will decline and be forced to lay off workers without protection, thus protection will create jobs; (2) the government will earn additional revenues that can be used for important social programs; and (3) the tax is on foreigners and is unlikely to affect domestic consumers (number 3 isn't correct, of course, but the argument is often used anyway). Consumers, on the other hand, have very little individual incentive to oppose the tariff. Even writing a letter to your representative is unlikely to be worth the $2 potential gain. Plus, consumers would probably hear (if they hear anything at all) that the policy will create some jobs and may not affect the domestic price much anyway (after all, the tax is on foreigners).

The implication of this problem is that the lobbying process may not accurately relate to the government the relative costs and benefits that will arise due to the implementation of a trade policy. As a result, the government would likely implement policies that are in the special interests of those groups who stand to accrue the concentrated benefits from protection, even though the policy may generate net losses to the economy as a whole. Thus by maintaining a policy of free trade, an economy could avoid national efficiency losses that could arise with lobbying in a democratic system.

KEY TAKEAWAYS

- Selected protection may fail to raise national welfare when foreign country retaliations occur. This is a potential problem when many countries are large in international markets.
- Selected protection with a trade policy is typically second best. A purely domestic policy to correct the market imperfection is often the better, or first-best, policy.
- Selected protection requires detailed information in order to set the policy at a level that will assure an improvement in national welfare. Because the necessary information is often lacking, getting selected protection right may be impossible.
- Selected protection can be captured by special interests in the lobbying process in representative democracies, thereby making it less likely that maximum national welfare will be achieved.

EXERCISE

1. **Jeopardy Questions**. As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

   a. The term used to describe a potentially welfare-reducing reaction to beggar-thy-neighbor trade policies.
   b. The term used to describe the lowest-cost policy action that corrects for market distortions or imperfections.
   c. The often overlooked deficiencies that affect the ability of government to set effective policies.
   d. The term used to describe the process by which individuals inform the government of their preferred policies.
   e. Economists applying the theory of the second best would argue that free trade is appropriate in spite of market imperfections because *these types of policies* are usually first best.

11.6 Free Trade as the "Pragmatically Optimal" Policy Choice

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LEARNING OBJECTIVE

1. Understand the modern argument for free trade as a "pragmatically optimal" policy choice.

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In summary, the economic argument in support of free trade is a sophisticated argument that is based on the interpretation of results from the full collection of trade theories developed over the past two or three centuries. These theories, taken as a group, do not show that free trade is the best policy for every individual in all situations. Instead, the theories show that there are valid arguments supporting both free trade and protectionism. To choose between the two requires a careful assessment of the pros and cons of each policy regime.

The argument for free trade presented here accepts the notion that free trade may not always be optimal in terms of maximizing economic efficiency. The argument also accepts that free trade may not generate the most preferred distribution of income. In theory, there are numerous cases in which selected protectionism can improve aggregate welfare or could establish a more equal distribution of income. Nevertheless, despite these theoretical possibilities, it remains unclear and perhaps unlikely that selected protectionism could achieve the intended results. First, in many instances, a trade policy is not the best way to achieve the intended improvement in economic efficiency, nor is it likely to be the most efficient way to achieve a more satisfactory distribution of income. Instead, purely domestic tax and subsidy policies dominate. Second, even when a trade policy is the best policy choice, the possibility of retaliations and the likelihood of informational deficiencies or distortions caused by the lobbying process are sufficiently large as to make the intended outcomes unknowable.

In addition, the process of information collection, lobbying, and policy implementation is a costly economic activity. Labor and capital resources are allocated by interest groups attempting to affect policies favorable to them. The government also must expend resources to gather information, to implement and administer policies, and to monitor the effectiveness of these policies. In the United States, the following agencies and groups devote at least some of their time to trade policy implementation: the Office of the United States Trade Representative, the International Trade Commission, the Department of Commerce, the Federal Trade Commission, the Department of Justice, the Congress, and the president, among

others. One must wonder whether the cost of this bureaucracy, together with the cost to the private sector to influence the decisions of the government, is worth it, especially when the outcomes are virtually unknowable.

Thus the conclusion reached by many economists is that while free trade may not be "technically optimal," it remains "pragmatically optimal." That is, given our informational deficiencies and the other problems inherent in any system of selected protectionism, free trade remains the policy most likely to produce the highest level of economic efficiency attainable.

KEY TAKEAWAY

- While free trade may not be "technically optimal," it remains "pragmatically optimal"—that is, free trade remains the policy most likely to produce the highest level of economic efficiency that is practically attainable.

EXERCISE

1. **Jeopardy Question**. As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

   a. The term used to describe a policy that is relatively easy to implement and has strong positive characteristics but may not be best in all conceivable circumstances.