

Chapter 1

International Economics Is Different

Overview

The introduction to the subject of international economics has three major purposes:

1. Show that international economics addresses important and interesting current events and issues.
2. Show why international economics is special.
3. Provide a broad overview of the book.

We begin with four controversies that show the importance of current issues addressed by international economics.

The first controversy began with innovation of hydraulic fracturing and horizontal drilling to extract natural gas from shale in the United States. U.S. production increased and U.S. prices decreased. The new production technology provides the United States with comparative advantage in natural gas (Chapters 3, 4, and 7 discuss comparative advantage). The United States was poised to become a major exporter of natural gas, but a 1938 law prohibits exports unless they are judged to be in the “public interest.” A group of U.S. chemical and other firms that use natural gas in their own production processes supported export limits so that the increased U.S. natural gas production results in general benefits rather than just profits to exporters. Should the U.S. government allow a large increase in U.S. natural gas exports? Is exporting in the national interest? Key themes from the course apply to this case. As discussed in Chapter 2, allowing exports will benefit some groups in the country (U.S. producers of natural gas and export distributors) and harm others (U.S. users and consumers of natural gas). If any environmental effects are small, then the economic analysis is clear. U.S. producers gain more than consumers lose, so exporting is in the national interest. What about environmental effects? The analysis of Chapter 13 applies. Production of natural gas using fracking can generate external costs. With negative externalities to domestic production, the country will tend to export too much, unless there is a government policy that forces producing firms to recognize and manage the spillover costs. As of late 2014, this case was still evolving, with the U.S. government moving slowly in providing export approvals.

The second controversy arises from international migration, especially the increasingly vehement complaints about immigrants in many of the major receiving countries. In these countries a rather large (10 percent or more) and rising percentage of the population is foreign-born, including many who are in their new countries illegally. Opponents accuse immigrants of causing general economic harm, imposing fiscal costs as immigrants use government services, and increasing crime. International economics is often about emotional issues like immigration, yet we do our best to use economic analysis to think objectively about actual economic effects. In a preview of the analysis of Chapter 15, we highlight two key conclusions about the effects of immigration on the receiving country. First, as with many issues in international economics, there are both winners and losers in the receiving country. Second, we can determine the net

effect on the receiving country. As we often conclude when we examine freer international exchange, the net national effect of immigration is positive according to the basic economic model, in this case even if we ignore the gains to the immigrants themselves.

The third controversy is the exchange rate value of the Chinese yuan. From the mid-1990s to 2005, the Chinese government maintained a fixed exchange rate of the yuan to the U.S. dollar. As China's trade surplus increased and the Chinese government continually had to enter the foreign exchange market to buy dollars and sell yuan to keep the exchange rate steady, the United States and the European Union increasingly complained about the fixed rate. In 2005 the Chinese government began to allow gradual increases in the exchange-rate value of the yuan. In mid-2008, in response to the worsening global crisis, the Chinese government reverted to a fixed exchange rate. Then, as the Chinese economy resumed its rapid growth and China's government continued to amass international reserves through its intervention to defend the fixed exchange rate, foreign pressures reemerged. In mid-2010 China's government again began to allow gradual appreciation of the yuan.

In the controversy over China's exchange rate policy, we can see many of the issues that we will examine in Chapters 16-25 of the book, including the measurement and meaning of a country's balance of payments (including its trade balance), government policies toward the foreign exchange market and how a government defends a fixed exchange rate against market pressure for the exchange rate value to change, foreign financial investments and the role of currency speculators, political pressures that can place limits on how long a country with a fixed exchange rate and a trade surplus can maintain the fixed rate value, and how exchange rates affect not only a country's trade balance, but also its national macroeconomic performance (including production, employment, and inflation).

The fourth controversial development is the euro crisis. The euro was born in 1999, with the European Central Bank (ECB) overseeing the euro and conducting monetary policy for the euro area. The number of European Union countries using the euro went from 11 in 1999 to 16 in 2009. Generally, in its first decade the euro looked successful. The global financial and economic crisis that began in 2007 and intensified in 2008 caused a deep recession in the euro area countries, but recovery began in mid-2009.

Crises then hit a series of euro area countries, Greece in 2010 (beginning as a fiscal and sovereign debt crisis), Ireland later in 2010 (beginning as a banking crisis following a burst housing price bubble), and Portugal in 2011 (a credit boom and bust). Contagion spread these crises to adversely affect Spain and Italy in 2011 and 2012. As the euro crisis intensified, it threatened the continued existence of the euro itself. Because both the causes of the crisis and the possible solutions were and are controversial, the ECB reacted slowly, first with a mild form of quantitative easing through loans to banks in late 2011 and early 2012. The ECB moved more decisively with a commitment to "do whatever it takes" in July 2012, with the commitment formalized as the Outright Monetary Transactions program in September. The crisis subsided, though, as of late 2014, macroeconomic weakness lingers (and Greece is in depression).

We discuss the euro crisis throughout the second half of the book. Monetary union is an extreme form of fixed exchange rates. The euro crisis was three interrelated forms of crisis—government

debt (fiscal), banking, and macroeconomic. The national use of fiscal policy within the euro area remains highly controversial. Is fiscal policy more a tool for improving national macroeconomic performance, or is it more a source of instability for individual countries and for the union as a whole?

These four controversies show that international economics addresses important current issues. They also can be used to show why international economics is special—why national boundaries matter in economics. The first reason that international economics is special is that some resources do not move freely between countries. Land is essentially immobile. There are substantial impediments to the movement of labor internationally, as we see in the analysis of international migration, because of the personal and economic costs to people of moving from one country to another, and because of restrictive government policies. Financial capital moves more freely, but there still seems to be a home bias to many people's financial investments.

The second reason that international economics is special is that national government policies matter—in fact, they matter in two ways. One way is that national governments can adopt policies toward international transactions, as we see in the political decision to limit U.S. exports of natural gas. The other way is that national governments adopt different economic policies. These national policies usually are designed to serve national interests, but they often have international effects. We see the tension between national interests and international effects in the discussion of China's exchange rate policy.

Tips for teaching

One good way to begin the first class session is with a look at current events, even before the mechanics and requirements of the course are presented. The instructor might use the day's newspaper (for instance, the *Financial Times* or *Wall Street Journal*) or the week's magazine (for instance, the *Economist* or *Business Week*) to highlight a few stories related to the content of the course. We have found that this is good way to get the students' attention and interest. Another good beginning would be to provide a discussion that updates one or more of the four controversies in Chapter 1. For example, the instructor could look at the most recent information on China's trade balance and the exchange rate value of its yuan.

You may want to consider beginning other class sessions of the course (not only the first class session) with a look at one or two stories in that day's newspaper. The stories should relate in some way to the material covered in the course, but they do not necessarily have to relate to the specific material covered in that day's session. We have found that this look at current events reinforces the relevance of international economic analysis. It also encourages students to read a good newspaper or magazine and to keep up with current events. In addition, we can model critical reading, if we both summarize the article's information and offer our own opinion or analysis (or ask the students for their opinions).

The instructor may also point out that there is a lot of information on international issues available on the Web. Figure A.1 in Appendix A provides a list of some important sites.

If instead this is a large country, then changes in its willingness to trade change the equilibrium international price ratio. If the growth reduces the country's willingness to trade, then the reduced supply of exports and the reduced demand for imports results in an increase in the equilibrium relative price of the country's exportable product. The well-being of the country increases for two reasons—the country's production capabilities increase, and its terms of trade improve.

If growth of a large country increases its willingness to trade, then the increased supply of exports and the increased demand for imports results in a decrease in the equilibrium relative price of the country's exportable product. If the price does not change by too much, then the country's well-being is higher—but the increase in well-being is less than it would be if the country's terms of trade did not deteriorate. If the price ratio changes by a lot then immiserizing growth is possible—growth that expands the country's willingness to trade causes such a large decline in the country's terms of trade that the well-being of the country declines. The loss from the decline in the terms of trade is larger than the gain from the larger production capabilities. This is more likely if the growth is strongly biased toward producing more of the exportable product, foreign demand for the country's exports is price inelastic, and the country is heavily engaged in international trade.

The discussion of technology and trade focuses on several main points. First, differences in production technologies available in different countries can be the source of comparative advantage, because technology differences result in production possibility curves that are skewed differently in different countries. Second, much new technology is the result of organized research and development (R&D). The location of the production of new technology through R&D follows the Heckscher-Ohlin theory. R&D is intensive in the use of highly skilled labor (especially scientists and engineers) and also in capital that is willing to take large risks (for instance, venture capital). Consistent with H-O theory, most new technology is created by R&D located in the industrialized countries, which are well-endowed with these factors. Third, although production using the new technology may first occur in the country that creates the new technology, the technology is also likely to diffuse internationally. The product cycle hypothesis suggest that there is a regular pattern as new technology diffuses, with developing countries often becoming the exporters of many products after the products become standardized or mature. Although the product cycle describes the evolution of production and trade for a number of products, it is also subject to a number of limitations.

Openness to international trade can also increase a country's growth rate. Imports can speed diffusion of new production technology into a country, through imports of advanced capital goods and, more generally, through greater awareness of new foreign technology. Openness to trade can also place additional competitive pressure on domestic firms to develop and adopt new technology, and export sales can increase the returns to their R&D activities. According to the "new growth theory," these increases in the country's current technology base can enhance ongoing innovation, resulting in a higher ongoing growth rate.

Finally, the box "Trade, Technology, and U.S. Wages" (another Focus on Labor) confronts an important issue—why has the difference in wages between skilled and less skilled workers been widening since the 1970s, in the United States and other countries. This could be the Stolper-Samuelson theorem at work, if expanding trade with developing countries placed downward

In our formal analysis we begin with the case in which pollution caused by an activity within the country has effects only on this country. We use tools similar to those that we developed in Chapter 10. If the country simply allows the pollution to occur, with no government policy to limit the negative externality, we show that free trade can make the country worse off, and that the country can export the wrong products. This occurs because of the marginal external costs, in our example resulting from pollution that accompanies domestic production of the export good. A government policy that taxes pollution or production that causes pollution (or that establishes suitable property rights) can reverse these effects, assuring that the country exports and imports the appropriate products and gains from free international trade.

Domestic producers subject to the pollution-related tax may complain that other countries, especially the countries that become the suppliers of the country's imports, are not imposing a comparable pollution-related tax on their firms. They may complain that the foreign firms are engaged in "eco-dumping." From the perspective of the importing country, lax foreign controls should not matter to its well-being, as long as the foreign pollution does not affect it.

The analysis of transborder pollution raises new issues. We use the example of production activity in one country that pollutes a river flowing into a neighboring country. The best solution would balance the gains to the polluting country from dumping waste into the river with the costs of pollution to the receiving country. Generally, this best solution is less pollution than the amount that occurs with no government policy, but more than zero pollution. However, the government in the polluting country may resist imposing a pollution tax (or some other way to limit pollution by its firms), because it bears the national costs while the other country gets the national benefits. If international negotiations fail, what should the receiving country do? It cannot tax the foreign pollution or even the foreign production that causes pollution. If the receiving country imports the product from the polluting country, it could try to reduce the foreign production and pollution by restricting its imports. The country will gain if its benefits from lower foreign pollution exceed the usual deadweight losses of protection. (If instead the receiving country is an exporter of this product to the polluting country, it could subsidize its exports.) However, the WTO generally interprets its environmental exceptions narrowly, so it is not clear that the WTO would uphold the import restriction (or export subsidy), if the polluting country complained to the WTO.

The difficulty of addressing transborder pollution is also shown through a discussion of the slow progress that NAFTA has made in attempting to ameliorate environmental problems along the Mexico-U.S. border.

Some environmental problems are global—the whole world's economic activity imposes an external cost on the whole world. Each country might be willing to make some effort to reduce its own pollution, because it recognizes that its own activities have some adverse effect on itself. But each country on its own would not decrease enough, because it would not recognize the costs that its pollution imposes on other countries. Yet the world, and most countries, would be better off if the countries cooperated to reduce the pollution more. Such global agreements are difficult to achieve, because of disagreements about the how serious the problem is, the incentive to free-ride, and the difficulty of enforcement.

central bank sold yen high and could rebuy them low. (You reach the same conclusion if you look at dollar purchases. The central bank bought dollars at 1.67 yen/dollar, 1.82 yen/dollar, and 1.96 yen/dollar. The central bank could then sell the dollars at 2.00 yen/dollar.) To determine the exact profit or loss, you need to bring in dollar and yen interest rates.

12. In this situation there is a case for international macroeconomic policy coordination. Each country is trying to gain international price competitiveness by using expansionary monetary policy to depreciate its currency—to lower the exchange rate value of its currency. Each country is trying to generate more national economic growth by exporting more and importing less. There are several ways in which international policy coordination could be useful. First, not all countries can depreciate their currencies against the other currencies. For each currency that depreciates, at least one other currency must appreciate. Uncoordinated pursuit of depreciations can lead to excessively expansionary monetary policies. And, in any case, all countries cannot succeed in exporting more and importing less. Second, using currency depreciation to grow a country's economy is a form of beggar thy neighbor policy. It could generate retaliations by those neighbors who feel harmed. For example, those countries could raise barriers to importing from the aggressive country, and in the process harm all or most countries through a reduction in the general gains from trade. Third, this should not be a competitive situation. The countries share a common goal, to increase the rate of economic growth. With a common goal, there should be policies that that can be adopted in a coordinated manner so that all countries can achieve the growth objective. It may be that all countries should use expansionary monetary policies, but in manner that drives growth more from domestic expansion and from the reinforcing effects of foreign income repercussions through generally rising international trade, rather than by each country trying to gain international sales at the expense of the other countries.