

# Chapter 1

## An Introduction to International Trade

This chapter provides an overview to the study of international economics and to the material covered in this textbook. It offers an extensive discussion of real world data on the characteristics of the various countries of the world, including their standards of living and the importance of international trade to their economies. It also discusses various aspects of the nature of international trade in today's world such as the commodity composition of international trade and the direction of international trade flows.

The book includes considerable amounts of data, especially in this chapter. Students should be encouraged to peruse this data—perhaps by challenging them to discover “interesting facts” or by giving them an international trade IQ test—including questions such as which country is the world's largest exporter, etc. The chapter previews the Heckscher-Ohlin theory of trade flows in its discussion of U.S.-Japan trade patterns. Students could be prompted to search through the tables for other examples of trade patterns that have similar regularities to them. In urging students to look for and to attempt to explain these patterns, one is laying a solid foundation for the theoretical work that will be developed in the chapters to come.

The data for Table 1.1 were taken from several tables found in the back of the *World Development Report*, published for the World Bank by Oxford University Press. This volume contains many more tables of data and is a useful source for many additional “box items” such as those that we have inserted throughout the text. Note that we have included a column of data on PPP estimates of real GNP per capita. The construction of these measures is aimed at providing better cross country comparisons of standards of living, and the differences between these levels and standard measures of GNP per capita are often quite large. Another excellent source of data is the *Handbook of International Trade and Development Statistics* published by the United Nations Conference on Trade and Development. This volume contains information on the export and import structure of your country by main product categories and selected commodity groups. This is an excellent way of teaching fundamental patterns of comparative advantage. In some cases it also provides an opportunity to illustrate the phenomenon of intraindustry trade. This concept is especially important if you intend to cover the material in the latter part of Chapter 5. Finally, tables are presented that calculate the degree of commodity concentration and diversification of exports by country over time. These numbers are useful when discussing how trade leads to specialization in the production of a few items. The *Direction of Trade Statistics Yearbook*, published by the International Monetary Fund, presents bilateral trade flows (exports and imports) for all the countries that belong to the IMF. The material here can be used to reinforce the idea that distance plays a very important role in determining trade patterns. These data can also be used to make the point that, even though we will later assume balanced international trade, bilateral trade flows need not be balanced; trade deficits in one direction are often countered by trade surpluses in another (e.g., compare Australia-Japan trade with Japan-U.S. trade).

## ■ Chapter Outline

Introduction

Characteristics of National Economies

Economic Growth

International Trade

The Direction of International Trade

What Goods Do Countries Trade?

Summary

Exercises

## ■ Suggested Answers for the End-of-Chapter Exercises

1. Explain why neighboring countries tend to trade extensively with each other.

The most obvious answer is transportation costs, both in money and in time. A firm will buy components from the closer supplier rather than one farther away (given the same quality of product) because transportation will likely be faster and less expensive. For example, U.S. automobile manufacturers buy more parts from Canada than from Germany. Also, individuals in countries that share borders are probably more familiar with each other's business practices and customs, resulting in lower transactions costs.

2. Use the information in text Tables 1.4 and 1.5 and your knowledge of the Mexican economy to summarize and explain the trade pattern of Mexico.

Mexico is a large, developing country, whose most important trading partner is the United States. Because NAFTA provides Mexico with preferential access to U.S. markets, we should expect Mexico to export products in high demand in the United States. In addition, because Mexico has significant oil reserves, petroleum should be an important export. From Table 1.4, we see that Mexico's exports are dominated by basic machinery, motor vehicles, miscellaneous manufactures and agricultural products (fresh fruits and vegetables), most destined for the U.S. market. Petroleum accounted for about 11% of exports, down from 36% in the early 1990s. This reliance on petroleum exports means Mexican income is critically dependent on oil prices—and illustrates why growth in Mexico was very high in the 1970s when oil prices were high, and also why income in the 1980s dropped (along with the price of oil).

Mexico's imports are also widely distributed. Machinery and transport equipment are the most important category of imports (49%), supplemented by large imports of basic manufactures (16%), chemicals (10%), and miscellaneous manufactures (12%). This pattern of imports is consistent with a developing country trying to establish a manufacturing and industrial base for its economy.

3. Find five interesting facts in Table 1.1.

Many answers are possible to this question. The following list represents an example of potential answers.

- a. Though the index of openness increased from 1980 to 2006 in each group of countries, it remained highest in the high-income countries.
- b. Economic growth tended to be the most stable in high-income countries with none of them averaging negative growth from 1994–2004.

- c. Three out of the nine fastest growing middle-income countries from 2000–2006 were former communist countries from eastern and central Europe. Four of those nine were countries from Southeast Asia. The country with the fastest growth in this period was China, with an impressive 9.2 average growth rate.
  - d. All of the countries that experienced negative economic growth in this period were low income economies.
4. Find five interesting facts in Tables 1.4 and 1.5.

Many answers are possible to this question. The following list represents an example of potential answers.

- a. The number one category of exports of almost every country listed is machines and transport equipment.
  - b. The number one category of imports of almost every country listed is also machines and transport equipment.
  - c. With the exception of Singapore, each of the developed countries imports a higher percent of clothing than they import while the opposite is true of developing countries.
  - d. With the exception of Canada, each of the high-income nations export a higher percent of chemicals than they import while the opposite tends to be true of the developing nations.
  - e. Motor vehicles form a higher percent of exports than in imports in not just Germany and Japan, but also in Mexico and Brazil.
5. Compare the export rankings of the top ten leading exports of 1994 to the rankings of the top ten leading exports in 2006 (see Table 1.3). Discuss some of the reasons why these rankings have changed so dramatically.

Crude petroleum was the third most important export in 1994 but has climbed back to the first position by 2006. This return of crude petroleum to the number one position was probably due to the increase in prices experienced in the last few years. Some of the most important changes in this ranking are related to this pattern, including petroleum products (from 12th to 5th) and gas (from 36th to 12th).

Another important change happened in telecom equipment and parts, which went from 11th to 6th.

The decline of cereals from 20th to 30th may partially reflect sharp improvements in agricultural productivity. Apart from these categories, the composition of the top ten exports has remained fairly stable.

6. Use Table 1.1 to find the five most open economies in 2006. How does the growth performance of these countries compare with the growth of the average country in the table?

As of 2006, the five most open economies were Singapore (index = 206), Hong Kong (170), Malaysia (108), Belgium (95), and the Republic of Congo (92). For this particular period, there did not seem to be a correlation between openness and growth. Most commonly, however, economists find a tendency for economies that are open to international trade to also grow rapidly. One reason for this may be that countries that concentrate their resources in a few export industries may better achieve economies of scale and be more successful at innovating.

7. Use Table 1.4 to compare the structure of U.S. and Canadian exports. Comment on similarities and differences. Are there any obvious reasons for the patterns you observe?

Both countries are highly developed, so that manufacturing is well-represented in their exports. Machinery and transport equipment account for more than thirty percent of each country's exports. U.S. exports contain a greater proportion of high-technology products (computers, aircraft). Canada's manufactured exports are more traditional (autos and basic manufactures). These differences may reflect the greater availability of scientists and engineers in the United States. Another important difference between the countries is that Canada is richer in natural resources. Accordingly, crude materials figure more prominently in its exports.

8. According to Figure 1.2, intra-European Union trade accounts for a huge proportion of EU trade. What factor or factors might account for this fact?

Several factors are clearly involved. First, because of the close proximity of these countries, transport costs in moving goods are low. Second, by agreement, barriers to intra-EU trade are zero or at least quite low. Finally, standards of living across the countries of the EU are quite similar. Hence, goods produced in any one country should be in relatively high demand in any of the others.

9. According to Figure 1.2, the EU is a major customer of exports from Africa and the Middle East. What types of products do you think these areas produce for export, and why do you think the EU is their best customer?

Clearly, the leading export of the Middle East is petroleum. With the exception of the UK, all of the countries of the EU are significant oil importers. Since the Middle East is relatively close geographically to the EU it is not surprising that the EU is a major customer for Middle East exports. African exports are probably highly concentrated in agricultural products (e.g. cocoa, coffee, banana, etc.), petroleum (mostly from Nigeria), crude materials (including various minerals), and basic manufactures. Since many of the African countries are former colonies of one of several of the EU countries (e.g. Belgium, France, Germany, and the UK), there are long-standing trade relationships between these countries and the EU.

10. Use Table 1.5 to compare and contrast the import patterns of China and Germany.

For most categories, the import patterns of these two countries are significantly different. Some of the most stark differences include the following: China imports significantly more crude materials, but Germany imports more mineral fuels. Germany imports a larger share of chemicals, motor vehicles, miscellaneous and basic manufactures. China has a much larger share of other goods imported.