

Chapter 13

International trade and development (with a portrait of Joan Robinson)

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OVERVIEW

- Orthodox theories of comparative advantage imply that free trade benefits all countries, but only on the unrealistic assumptions of balanced trade and full employment; even then, trade creates losers as well as winners and may increase inequality within countries.
- In the heterodox view, because balanced trade and full employment are rarely observed in reality, trade usually follows absolute rather than comparative advantages; as a result, countries that achieve more rapid export growth and/or trade surpluses often benefit at the expense of others.
- Changes in the terms of trade (international prices) redistribute the gains from trade between nations. Commodity price booms may benefit countries that are specialized in primary commodities, but can also result in what is called the “Dutch disease” of currency appreciation leading to deindustrialization.
- Efforts to promote export-led economic growth are usually successful only in a limited number of countries at a time as a result of a “fallacy of composition”; the only way that all countries in the global economy can grow faster together is by the adoption of more

expansionary macroeconomic policies worldwide.

WHY THIS TOPIC IS IMPORTANT

International trade has been an important feature of the economic growth process since the dawn of modern capitalism. The colonial empires of the sixteenth through the early twentieth centuries were built on a very unequal form of trade, primarily involving the exchange of natural resources from the colonial areas for manufactured goods from the imperial powers. The countries that have grown most rapidly in recent decades, such as Japan, South Korea and China, have relied on exports of manufactures as a key part of their growth strategy. Supporters of the global trading system argue that unfettered trade leads countries to specialize in the products that they can produce most efficiently, resulting in higher productivity and increased consumption levels in all countries. Critics, however, charge that the global trading system often widens income gaps between more advanced and less developed nations, and can also exacerbate inequality in the distribution of income within countries.

The share of internationally-traded goods and services in global GDP has increased dramatically over the past half century, as shown in Figure 13.1.

[INSERT FIGURE 13.1 HERE]

This tremendous expansion of trade has been driven by several factors, including deliberate

efforts by governments to open up markets by negotiating reductions in trade barriers – a process known as *trade liberalization* – as well as changes in technology that have revolutionized how products are made, how cheaply goods can be shipped, and how easily firms can communicate with production facilities around the world. This chapter is concerned with theories that try to identify the relationship of international trade to long-run growth objectives and other core macroeconomic issues such as unemployment.

THE ORTHODOX APPROACH: THE THEORY OF COMPARATIVE ADVANTAGE

The orthodox approach to international trade is known as the theory of *comparative advantage*. This section will explain this theory and some of its limitations, while later sections in this chapter will explore heterodox alternatives. The essential idea of comparative advantage is that every country should specialize in (and export) the goods that it can produce with the relatively lowest cost compared to other countries, while importing those goods that can be produced at a relatively lower cost abroad. The key question, then, is how to define the meaning of goods being relatively cheaper or more expensive. Based on the classical statement of the theory of comparative advantage by David Ricardo (1821/1951), a simple and compelling way to define this concept is in terms of *relative labour cost*, that is by comparing the cost in labour-time of producing goods in each country, as in the following example.

An Example of Comparative Advantage

To illustrate this theory, consider a simplified world economy consisting of two countries, the United States (US) and East Asia (EA), which can produce two goods (televisions and rice) with the labour costs (person hours per unit of output) shown in Table 13.1.

[INSERT TABLE 13.1 HERE]

Given these (purely hypothetical) numbers, the relative cost of producing a television in the US is only $2/4 = 0.5$, which is the ratio of the hours of labour required to produce one television (2 hours) to the hours required to produce one ton of rice (4 hours). This ratio is very important, as it corresponds to the microeconomic concept of *opportunity cost*: the US has to give up 0.5 tons of rice in order to produce each additional television.

In EA, however, the relative (opportunity) cost of a television is $6/5 = 1.2$ tons of rice (because it takes 6 labour-hours to produce a television and 5 labour-hours to produce one ton of rice), so televisions are relatively more expensive to produce there (EA has to give up 1.2 tons of rice for each television it produces, compared with only 0.5 in the US).

Hence, we say that the US has the comparative advantage in televisions. Because this is a purely relative comparison, the same logic implies that EA has the comparative advantage in rice. To see this, note that the opportunity cost of producing rice in the US is $4/2 = 2.0$ (the reciprocal of the US opportunity cost for televisions), while the opportunity cost of rice in EA is $5/6 = 0.83$ (the reciprocal of the EA opportunity cost for televisions). Since 0.83 is less than 2.0, we can see that EA has the relatively lower opportunity cost for rice and hence will export it.

Note that, according to the theory of comparative advantage, a country does not need to have an *absolute productivity advantage* (that is, the lowest labour time per unit, or highest output per hour) in a good in order to export it. In our example, EA exports rice even though it has an absolute disadvantage in rice (it takes 5 hours of labour to grow a ton of rice in EA, compared with only 4 hours in the US). Indeed, in our example the US has the absolute advantage in both goods, but it only has a comparative advantage in televisions while EA has the comparative advantage in rice. Both countries can gain by trading according to their comparative advantages, provided that they exchange the goods in a proportion (called the *terms of trade*, or international relative price) that lies between their respective relative labour costs. Thus, in our present example, the terms of trade have to be greater than 0.5 and less than 1.2, measured in tons of rice per television.

In the highly simplified world of the comparative advantage model, free trade generally makes all workers better off compared to a situation in which each country tries to make both goods for itself (such self-reliance is referred to as *autarky*). For example, if the international terms of trade are $3/4 = 0.75$ tons of rice per television, then a US worker can obtain more rice by spending 2 hours producing a television and selling it for 0.75 tons of rice, than by growing rice directly (given that the US worker would need 4 hours of labour to produce one ton of rice, she could only produce 0.5 tons of rice in 2 hours). Similarly, an EA worker can obtain more televisions by producing and exporting rice than by attempting to produce televisions at home. The increased quantities of the goods that consumers can afford when the goods are produced in the countries where they are relatively cheaper

constitute what are called the “gains from trade.” Of course, it may seem unrealistic that EA exports rice and imports televisions (and the US does the opposite), and indeed it is; in a later section of this chapter, we will explain how and why EA will want to develop its television industry and reverse this pattern of trade (that is, export televisions and import rice).

Changes in the Terms of Trade

Even in the orthodox approach to international trade, there are some important caveats regarding the gains that countries receive if trade follows comparative advantage. One important qualification is that the gains from trade can be redistributed *between countries* if the terms of trade shift in favour of one country’s exports and against the other’s. In our example, if the terms of trade increase from 0.75 to 1 ton of rice per television, then – although both countries are still better off with trade compared with autarky – the television-exporting country (US) gains relatively more and the television-importing country (EA) gains relatively less from the trade. Using our previous example, if a US worker who spends 2 hours producing a television can sell it for 1 ton of rice instead of 0.75 tons of rice, then clearly that worker will be able to consume more rice. However, an EA worker who spends 5 hours growing a ton of rice will be able to purchase less televisions if she only gets 1 television per ton of rice instead of $1.33 = 1/0.75$ (note that the terms of trade for rice are always the reciprocal of the terms of trade for televisions).

Going beyond this simple example, changes in the terms of trade can have a powerful

impact on the income of countries that export various types of goods in the real world. One important case is the terms of trade for exports of “primary commodities,” that is the agricultural and mineral products (including petroleum) that are the main exports of many countries in various regions of the world (for example, Australia, Brazil, Nigeria, and Russia). Figure 13.2 shows two key indexes of these international terms of trade, one for crude oil and one for non-energy primary commodities (agricultural and mineral goods). Both indexes were constructed by deflating the nominal price indexes (current price levels) for each type of commodity by a US producer price index, on the assumption that exporters of these goods spend their export revenue largely on imports of industrial products that are priced in US dollars in global markets. The data in this figure illustrate how sharply the purchasing power of the exporters of oil or other commodities over industrial goods has varied over the past several decades. When the terms of trade for the primary commodity exporters rise (as in the 1970s or 2000s), the real income of the exporting countries (for example, Mongolia or Saudi Arabia) rises, but there is a corresponding decrease in the ability of the countries that import these goods (for example, the US or EU) to purchase them and hence a decline in their real income.

[INSERT FIGURE 13.2 HERE]

At various points in the twentieth century, many economists in developing countries feared that there would be a long-term decline in the terms of trade for primary commodity exports, which would reduce those countries’ ability to import manufactured goods from the industrialized countries. As Figure 13.2 shows, although these terms of trade did

decline in the 1980s and 1990s, they were generally on a rising trend between 2000 and 2013, owing to a combination of strong global demand (especially from China) and speculative pressures in global commodity markets. However, at the time of this writing (early 2016) the prices of many primary commodities (including oil) were falling rapidly as a result of weakening demand from producers of industrial goods (for example, the EU and China), so the future prospects for the commodity terms of trade are uncertain.

Although it may seem that it is always better for any country to have high terms of trade for its exports (whatever its exports may be), high terms of trade for primary commodity exports can be a mixed blessing. In fact, some have claimed that they can become a “curse”. The reason is that high export prices for primary commodities give countries incentives to invest less in industry and manufacturing, which generally offer greater opportunities for improving technology and raising productivity and living standards in the long run than agriculture or mining. Thus, even if a country enjoys high per capita income as a result of high prices of primary commodity exports for some period of time, the resulting *deindustrialization* may inhibit the country’s long-run development prospects.

This problem can be worsened if the increased export revenue leads to the appreciation of the country’s currency, which makes its manufacturing industries less competitive in global markets. This phenomenon is often called *Dutch disease* because it was observed in the Netherlands after the 1959 discovery of natural gas reserves there. Moreover, fluctuations in commodity prices and currency values are often driven by financial speculation, which can be destabilizing for commodity exporters and importers alike. A good example of this

problem is found in the Canadian economy, where the boom in exports of oil from tar sand deposits and other primary commodities has led to an appreciation of the Canadian dollar that has hurt manufacturing industries in industrial provinces like Ontario and Québec.

Distributional Consequences of Trade (Winners and Losers)

A second, very important set of qualifications within the orthodox approach concerns the fact that international trade can redistribute income *among different groups within a country*, that is, some people gain but others may lose as a result of an opening to trade. In reality, the citizens of a country are not all generic “workers” as in the simple Ricardian model of comparative advantage discussed earlier,¹ and there are several dimensions along which the gains and losses from trade may be felt.

At the most basic level, we may distinguish between producers and consumers of any good. In general, consumers benefit if the goods they consume fall in price owing to greater competition from imports (think of cheap imported clothing from South Asia or Central America in the US or EU), but domestic producers of these same goods in the importing countries lose (they get lower prices for what they sell, and workers in these industries may lose jobs). By the same logic, producers gain but domestic consumers lose when prices of exported goods rise because of high foreign demand for those goods.

¹ Ricardo’s original model of international trade had three classes of economic agents: workers, capitalists and landowners (see Maneschi, 1992); what was presented here is the so-called “Ricardian” trade model as presented in standard textbooks. Recall the discussion in Chapter 2.

However, we can also think of “producers” as being divided into groups that own different productive inputs, like labour, land (natural resources) or capital. In this case, according to the neoclassical *Heckscher–Ohlin model* of trade, each country will have a comparative advantage in the goods that are relatively intensive in the use of the “factors of production” (inputs) that are relatively “abundant” in that country. For example, land-abundant countries like Australia, Brazil and Canada will export resource-intensive primary commodities, while labour-abundant countries like Bangladesh and China will export labour-intensive manufactures (or services, as in the case of India). An extension of this model called the *Stolper–Samuelson theorem* then tells us that owners of the inputs (“factors of production”) that are relatively abundant in the country gain from free trade while owners of relatively scarce inputs lose, basically because the demand for the abundant factor rises when production of the exported good increases while the demand for scarce factor falls as the country shifts resources out of the industry producing the imported good and into the export industry.² For example, low-skilled US workers would be expected to lose across-the-board from imports of labour-intensive goods like apparel or

² The Heckscher–Ohlin model is named for early twentieth century Swedish economists Eli Heckscher and Bertil Ohlin, while the Stolper–Samuelson theorem is named for American economists Wolfgang Stolper and Paul Samuelson, who published it in 1941. Both the Heckscher–Ohlin model and the Stolper–Samuelson theorem assume that the factors of production are “mobile” between industries, in the sense that any given unit of labour, land or capital could possibly be employed in producing any of the traded goods. See Bivens (2008) for an in-depth discussion of this theorem and relevant empirical evidence. Reinert (2012) offers an introductory textbook-level presentation.

electronics, which would reduce demand for low-skilled labour in the US, while high-skilled workers (scientists and engineers) would benefit from exports of high-technology goods like airplanes and computer software that increase demand for the services of such workers.

The Stolper–Samuelson theorem thus leads us to expect that trade would foster greater inequality between high- and low-skilled workers in advanced countries like the US, but would reduce such inequality in developing countries like Mexico that export goods that are intensive in low-skilled labour. In reality, however, many studies have found that inequality between different groups of workers has increased as a result of trade not only in advanced countries like the US, but also in developing countries like Mexico. This finding has led to the development of new theories that can explain how trade can foster greater inequality in all countries, not just in the more advanced ones where low-skilled labour is scarce.

One such new theory is the model of *offshoring* developed by Robert Feenstra and Gordon Hanson (1997). This model assumes that when jobs are outsourced from a rich country to a poorer country, the jobs that move (for example, jobs in automobile plants or auto parts factories that move from the US to Mexico) are relatively low-skilled in the richer country but relatively high-skilled in the poorer country. As a result, the average composition of employment shifts toward relatively higher-skilled labour in both countries, so wages rise more for the high-skilled workers and wage inequality (the gap between the better-paid

high-skill workers and the lower-paid low-skill workers) worsens in both countries.³

Nevertheless, it is important to recognize that trade does not always worsen inequality. In the countries that have been most successful at export-led growth, such as South Korea and China, real wages of workers eventually rise as the demand for labour begins to outstrip the supply, so the gains from trade become more widely shared. The reasons why this phenomenon is usually restricted to a relatively small number of countries will be discussed later in this chapter when we come to the “fallacy of composition”.

THE HETERODOX ALTERNATIVE: IMBALANCED TRADE, UNEMPLOYMENT, AND ABSOLUTE COMPETITIVE ADVANTAGES⁴

The traditional theory of comparative advantage rests on the twin assumptions of *balanced trade* (the value of exports equals the value of imports) and *full employment* (which implies that everyone who loses a job as a result of imports gets a job in export production or

³ Another type of new theory that can explain why trade tends to worsen inequality in many different countries is found in models of trade with “heterogeneous firms”, that is, where some firms are more efficient or productive than others. In such models, only the most productive firms can be successful in exporting while less productive firms may be driven out of the market by trade, with the result that average profit margins of the remaining firms may rise and (because the more productive firms tend to use relatively more high-skilled labor) high-skilled workers may benefit more than low-skilled workers when trade opens up. See, for example, Amiti and Davis (2012), De Loecker and Warzynski (2012) and Egger and Kreickemeier (2012).

⁴ See also Chapter 10 on the role of exports in long-run growth and Chapter 14 on the concept of a balance-of-payments constraint on growth.

another domestic industry). These assumptions are essential for the validity of the theory: together they ensure that trade only promotes efficiency in the allocation of resources and has no effect on the level of employment of those resources. In reality, however, most countries have *imbalanced trade*: either a *surplus*, meaning that the value of exports exceeds the value of imports, or a *deficit*, which indicates the opposite. In addition, there is typically some unemployment in most economies most of the time, and even if there is temporarily something close to full employment, this cannot be guaranteed to continue. Therefore, the heterodox approach examines the impact of trade in the real world where both imbalanced trade and unemployment are usually found.

If full employment is not guaranteed, then workers who lose jobs because of imports may not find jobs in the export sector or any other domestic activity, as is assumed (quite unrealistically) in the theory of comparative advantage. In the absence of full employment, workers who lose jobs because of imports and do not find employment elsewhere (or who get other jobs only at lower wages) will not share in the consumer gains from cheaper imports.⁵ By the same token, if a country that has unemployed workers is successful in boosting its exports, it can create more jobs and need not sacrifice output of any other

⁵ Workers who do not find jobs may remain unemployed in advanced countries like the US or the UK, where there are social insurance mechanisms to sustain them at least temporarily. In less developed countries, however, such welfare mechanisms often do not exist, and workers who do not find jobs in the modern sector cannot survive long without some sort of work. Thus, such workers tend to end up in the *informal sector*, for example by becoming street vendors or working in small shops where they have very low productivity and incomes. In these cases, we say that the workers are “underemployed” instead of unemployed.

goods in order to produce more exports – so the issue of “opportunity cost” becomes moot. Such a country can also reduce unemployment by protecting domestic industries from imports, for example through a *tariff* (tax on imports) or *quota* (quantitative restriction on imports).

As explained in Chapter 3, modern economies are best described as “monetary economies of production”, which means fundamentally that goods are exchanged for money and not bartered for other goods. The model of comparative advantage, in contrast, rests upon a barter vision of trade: one good (televisions) is exchanged directly for another good (rice), without any role for money. In the real world, however, goods are usually exchanged internationally for major or “hard” currencies (for example, dollars, pounds or euros), which in turn can be converted into other financial assets (such as treasury bills). As a result, some countries can build up trade surpluses by selling more in exports than they buy in imports, thereby acquiring net financial assets from other countries in exchange for their excess exports, while other countries have trade deficits, in which case they must be selling financial assets (or acquiring international debts) to cover the excess of their imports over their exports. For example, when China sells more goods to US than it imports from US, China uses the excess dollar earnings to increase its holdings of US financial assets such as stocks, bonds and treasury bills; this in turn increases the US net international debt to China.

Global Trade Imbalances

Figure 13.3 shows the countries that had the largest trade imbalances (surpluses or deficits in excess of 30 billion US dollars) as of 2013. As this figure shows, the US has by far the world's largest deficit, while the largest surpluses are found in manufacturing exporters like China and Germany and also in resource exporters such as Saudi Arabia.

[INSERT FIGURE 13.3 HERE]

One of the factors that affects trade balances, especially for countries that export manufactured goods, is a country's unit labour costs (wage costs per unit of output) compared to other countries' unit labour costs, measured at the prevailing exchange rate (price of one currency in terms of another).⁶ A country with lower unit labour costs, converted to a foreign currency (like the US dollar), will be likely to export more and import less, thereby tending to give it a bigger trade surplus. For example, countries like China and Mexico have taken advantage of relatively low wages combined with rising productivity in their export industries to achieve competitive advantages in many manufactured products, such as electronics and auto parts. In addition, in the late 1990s and

⁶ Note that, by definition, unit labour cost equals WL/PY , where W is wage rate (per hour), L is hours of labour, P is the price of the goods, and Y is the quantity of output. Since this ratio can also be written as $(W/P)/(Y/L)$, we can see that unit labour cost also equals the ratio of the real wage to the productivity of labour (quantity of output per hour). Thus, unit labour costs can be reduced either by suppressing wages or, alternatively, by increasing productivity. All this is in domestic currency; unit labour costs then get translated into a foreign currency by multiplying by the exchange rate measured as the foreign currency value of the home currency (for example, dollars per pound in the UK).

early 2000s, China also maintained an artificially low value of its currency, the renminbi (also called the yuan), thereby making its exports even cheaper in dollar terms than they would have been otherwise. Indeed, as the renminbi has appreciated (risen in value) and Chinese wages have increased since around 2005, China's trade surplus has decreased and some industries have left China for other, more competitive locations. In the euro area, where there is no internal exchange rate (because all countries use the same currency), a country like Germany can still obtain competitive advantages over other users of the same currency (for example, Italy or France) by keeping its wages low relative to the productivity of its workers (or, equivalently, having productivity grow faster than wages).

Whenever some countries have large trade surpluses and others have large deficits, much of global trade is following *absolute competitive advantages* (that is, the lowest monetary cost of production at prevailing exchange rates) rather than comparative advantages.⁷ In this situation, international trade is not generally fulfilling its supposed mission of making sure that goods are always exported by the countries that can produce them most efficiently; some countries are exporting goods that they would not export if trade were balanced, and other countries are importing those goods instead of producing them for themselves.

Trade and Unemployment

⁷ Note that absolute *competitive* advantage, in the sense of lowest monetary cost, is not the same as absolute *productivity* advantage, in the sense of lowest labour time or highest labour productivity. The heterodox theory emphasizes the former, not the latter.

The issue of imbalanced trade is also linked to the problem of unemployment. In Europe, for example, surplus countries like Germany and the Netherlands have maintained lower rates of unemployment than deficit countries like Spain and Greece. Similarly, China has taken jobs away from the US: estimates of US job losses caused by trade with China range from 1.5 million (Autor et al., 2013) to 2.7 million (Scott, 2012).

Deficit countries do not, however, always have high rates of unemployment. Sometimes, a country can have both a trade deficit and low unemployment rates, but this usually occurs when the country is borrowing to sustain aggregate demand at home. In this case, a country's consumers can buy goods and services in excess of what their current income would otherwise permit, thereby boosting the country's demand for imports and lowering its trade balance (as in the US or Spain in the early 2000s, when both countries were experiencing debt-driven real estate booms). In such situations, the borrowing country can temporarily sustain low unemployment along with a trade deficit, but such a debt-led boom usually ends in a financial crisis and recession as occurred in the US in 2008–9 and in Greece, Spain and other euro area deficit countries starting in 2009–10. After a financial crisis, deficit countries that had enjoyed temporary booms based on borrowing are usually compelled to make painful adjustments through higher unemployment and reduced incomes that in turn depress their purchases of imports, thereby improving their trade balances. Hence, the deficit shown for the US in Figure 13.3 for 2013 was about half of the US deficit at its peak in 2006 (approximately 400 versus 800 billion US dollars). Greece and Spain do not appear in Figure 13.3 because by 2013 they had eliminated their previously large trade deficits from before the euro area crisis, but in the process their unemployment

rates have soared to around 20–25 percent.

LONG-RUN DEVELOPMENT AND INFANT-INDUSTRY PROTECTION

Even if we abstract from the difficulties of unemployment and imbalanced trade, the traditional theory of comparative advantage suffers from another defect. The traditional theory is *static*, which means that it only investigates what is the best option for a country given its *current* resources and technology. However, in the long run countries must improve their technology in order to grow and raise their living standards, and in the process they may need to develop the capability to produce goods in which they do not have a pre-existing comparative advantage.

In the example shown in Table 13.1, adopting free trade and specializing in rice production for export was the best option for EA only because EA's technology for producing televisions was so poor. If EA could improve its technology, it could potentially become a manufacturing region that would export goods like televisions to the US, instead of the other way around. To see this possibility, consider the example shown in Table 13.2, where EA has lowered its labour cost to 2 hours per television, the same as in the US – presumably, by importing or imitating US television technology. Now, the relative labour cost of a television is lower in EA than in the US ($2/5 = 0.4$ versus $2/4 = 0.5$), so EA switches to having a comparative advantage in televisions. Henceforth, EA will export televisions in exchange for rice imported from the US. This can be called *dynamic comparative advantage*, because over time the less developed country acquires the

technical know-how required to produce a more advanced product and changes the direction of its trade.

[INSERT TABLE 13.2 HERE]

But, how could the EA television industry ever get off the ground? If EA allows free trade under the conditions shown in Table 13.1, it would remain permanently specialized in rice and its manufacturing industries would remain underdeveloped; any potential television producers could not compete with relatively cheaper US imports. Therefore, EA may need to use tariffs or quotas to protect local producers of televisions from imports until those producers become efficient enough to compete on their own, a policy that is known as *infant-industry protection*. Such protection is designed to enable a domestic industry to acquire improved technology and lower its costs to the point at which, eventually, the industry can survive without protection (and may possibly start to export).

There are some important qualifications to the case for infant-industry protection. First, in addition to (or instead of) trade policies, a government may choose to utilize other types of *industrial policies*. For example, the government could subsidize an industry through various means, such as by offering low interest rates on loans or providing necessary infrastructure and training. Thus, the promotion of infant industries need not be done exclusively through trade protection. Second, if trade protection is used, the tariffs and quotas should not be too restrictive or permanent; otherwise, the protected industry might not have incentives to become more efficient and might never be able to export. There are

many cases of countries that have protected and subsidized “infant” industries that, in effect, never grow up to become efficient and competitive exporters. This is why many developing countries, including Mexico, South Korea and India, have at various points in time reduced formerly high levels of protection and sought to expose their producers to greater global competition. Protecting domestic industries via tariffs or quotas does raise the costs of the products for domestic consumers, so it is important that the long-term gains from increased efficiency and eventual exports should outweigh the short-term costs of the protection.

Third, governments seeking to promote new industries face a choice of welcoming foreign multinational corporations (MNCs) to produce the more advanced goods, or else favouring domestic companies that could potentially produce them instead. The former path is in many ways easier, because foreign MNCs already have the necessary technology and know-how, but the MNCs may not want to share the technology and know-how with the “host” country. Therefore, even though it is more difficult, it may be more beneficial in the long run to try to promote national firms in order to enhance domestic technological learning. But if the latter route is too difficult or is blocked by trade agreements (discussed below) that prohibit policies favouring national firms, then it may be possible to negotiate with foreign MNCs to ensure that they share their technology (for example, by encouraging them to train domestic workers in advanced technology or to form partnerships with local firms). Most major countries that have successfully developed (including, for example, the US, Germany and Japan) have used infant-industry protection and other industrial policies at critical points in their history, and the few countries that have made the leap from

developing to industrialized (most recently Korea) have done so by enabling their own national companies to become global innovators and technological leaders (the Korean multinational Samsung is a good example) (see Chang, 2002; Lee, 2013).

TRADE LIBERALIZATION AND TRADE AGREEMENTS

As noted above, it is sometimes necessary or helpful for countries to use restrictive trade policies strategically to help develop their economies. In addition, many countries adopt protectionist policies with the intention of boosting domestic employment, or simply to help domestic interest groups that would be unfavourably affected if trade were liberalized. Nevertheless, all of these policies – regardless of the motivation – are likely to have adverse consequences for other nations. The protection of an industry in one country can mean a loss of exports and jobs for another country. Similarly, a subsidy used to promote exports in one country can result in artificially cheap imports that displace domestic producers and reduce employment in another. To use our previous example, if EA protects or subsidizes its television industry, this will cause job losses for US television workers – who are unlikely to become rice farmers, and at best are likely to be reemployed at lower wages in the service sector.

For these reasons, a long line of economists going back to Adam Smith has referred to protectionism as a *beggar-my-neighbour* policy: even if it enriches the protecting nation, it may impoverish others. Moreover, the fact that one country's trade and industrial policies can adversely affect other countries' industries and employment may lead to *retaliation*: a

country may impose tariffs or other protectionist measures in response to a foreign country's interventions. If a large number of countries adopt retaliatory trade barriers at the same time, the effect is to shrink global trade and lessen the gains that any country can derive from participation in the world market.

This problem became most acute during the Great Depression in the 1930s. Although high tariffs and frequent retaliation did not cause the depression, as some have claimed, they did not help the global economy to recover. Therefore, after World War II the victorious allies began a process of *multilateral trade liberalization* by engaging in broad-ranging negotiations over reciprocal reductions in tariffs and other trade barriers. This process began with the General Agreement on Tariffs and Trade (GATT), originally launched at a Geneva conference in 1947, and continued through the formation of the World Trade Organization (WTO) in 1995. As of November 2014, the WTO had 160 member countries.

In addition, smaller groups of countries have formed what are variously known as bilateral, regional or preferential *trade agreements*, leading to *economic integration* of the member countries. Some prominent examples include the European Union (EU) and North American Free Trade Agreement (NAFTA). The simplest type of trade agreement is a *free trade area*, in which trade barriers among the member countries are reduced or eliminated. More ambitious efforts at economic integration include a *customs union* (in which the member countries also adopt common external tariffs), a *common market* (in which the members allow free flows of labour and capital as well as goods and services), and an *economic union* (in which, in addition to all of the above, the countries seek to harmonize

other aspects of their economic policies). However, one should be cautious in assessing actual trade agreements because they do not necessarily live up to their names. For example, Mercosur is supposed to be the “common market of the south”, but the member countries (Argentina, Brazil, Paraguay, Uruguay and most recently Venezuela) have never fully eliminated tariffs on each other’s goods or negotiated a common external tariff, so it is not even really a free trade area or customs union.

The traditional analysis of trade agreements emphasizes the issue of *trade creation* versus *trade diversion*: do the gains from increasing trade among the member countries outweigh the possible losses from trading less with outside nations, which might be able to supply imports at lower costs? However, trade agreements have often been formed for many reasons that go beyond standard calculations of net gains from trade creation and diversion. Other economic reasons for trade agreements include: wanting preferential access for goods exported to a major trading partner; taking advantage of scale economies by producing for a larger market area; and trying to attract MNCs to invest in a country because it is a member of a larger trading bloc. These have been major motivations for smaller or less developed countries that have joined integration schemes with larger or more advanced countries, such as Mexico in NAFTA and Ireland in the EU. Sometimes the motivation is political, as when the countries in a region or alliance want to foster greater integration of their societies and be more unified in response to perceived external threats; this was an important reason for the efforts at European integration that led to the formation of the EU in 1992 and its subsequent expansion.

Regional or preferential trade agreements have gained a new impetus as a result of the breakdown of multilateral trade negotiations since 2001. A new WTO “round” was launched at Doha in 2001, but as of 2016 there were no prospects of its successful conclusion. The major players such as the US, EU and leading emerging market nations (Brazil, China, India and so on) cannot agree on various outstanding issues, including US demands for strengthened intellectual property rights and many countries’ unwillingness to further liberalize their agricultural sectors.

As the multilateral process is stuck, many countries have gone ahead and formed more limited trade agreements with varying numbers of partners. Especially, the US has used its leverage over smaller countries that want access to its market to win provisions that it cannot get in the WTO process, such as strengthened intellectual property rights (patents, copyrights, etc.) and investor-state dispute resolution procedures that favour multinational corporations. As of 2016, two very broad trade initiatives were being proposed: a Trans-Pacific Partnership (TPP) that would include the US, Japan and ten other countries around the Pacific rim; and a Transatlantic Trade and Investment Partnership (TTIP) between the EU and the US. Ironically, these negotiations have been fraught with difficulties because they are confronting the same big issues that have hampered the Doha round of the WTO, and the US does not have the same leverage with Japan or the EU that it has with the smaller countries with which it has negotiated bilateral trade deals (for example, Morocco or Peru). At the time this book went to press (early 2016), a TPP agreement had been negotiated but not yet ratified by the prospective member countries, including the US where significant opposition had emerged; the prospects for TTIP also remained uncertain at that

time.

MANUFACTURED EXPORTS AND THE FALLACY OF COMPOSITION

In spite of the controversy over trade liberalization and trade policies, there can be no doubt that countries that have been successful at exporting manufactured goods have generally (with some exceptions, discussed below) had rapid economic growth that has significantly increased their income levels. Why are exports of manufactured goods usually so beneficial for promoting economic development? One key reason is economies of scale: by producing for a larger market, exporting firms can reduce their average costs by spreading out the fixed costs (for example, machinery and equipment or research and development) over a greater quantity of output – and this is more likely to occur in manufacturing than agriculture or services. A second reason is that manufacturing activities engender greater technological learning within firms and more spillovers of knowledge between different firms and industries.

Third, manufacturing industries have generally been the main locus of *technological innovation* – the development of new and improved products and production processes – which is a key factor in driving long-run increases in productivity and incomes. In the twenty-first century, technological innovation has also spread to some service sectors (for example, software development) and other industries (including energy, agriculture, and mining). Nevertheless, manufacturing remains key for one additional reason: it is the sector that produces the *capital goods* (machines and equipment) that are required to lower costs

of production and to make the newly-developed or improved products in any sector of the economy.

In spite of these attractions of a development strategy focused on manufactured exports, only a relatively small number of developing countries (mostly in East Asia) have succeeded in using manufactured exports to leverage rapid, sustained growth. For those countries that are abundant in natural resources (for example, many in the Middle East, South America and Africa), the strong pull of comparative advantage has led them to continue to be specialized in primary commodity exports. Sometimes countries fail to adopt policies that would be conducive to success in manufactured exports, for example by allowing their currencies to become overvalued, not promoting or protecting infant industries, or not investing in the education and infrastructure required for success in the more advanced industries.

But among those countries that have attempted to pursue manufacturing export-led growth, the number of success stories has been limited by the *fallacy of composition*, or adding-up constraint (Blecker and Razmi, 2010). That is, not all countries can simultaneously increase their exports of manufactured goods at the very high rates seen in the most successful cases (for example, Korea and Taiwan in the 1980s or China in the 2000s). The markets in the rich, industrialized countries are only so big and grow more slowly than world trade (recall that trade has grown much faster than GDP globally, as shown in Figure 13.1). Once the domestic producers in a given industry in an industrialized country (for example, local manufacturers of textiles and apparel) have been displaced, then the developing countries

that want to enter those markets must compete very intensively for those markets.

Only the countries with the lowest monetary costs of production, the most competitive exchange rates and other favourable conditions can succeed, while the others are likely to fall behind and fail to achieve the desired export-led growth. Some countries may escape from this trap by moving “up the industrial ladder” to more high-technology products, and may even become technological innovators themselves – Korea is a case in point, and China is moving rapidly in this direction. But even the markets for more advanced products can become saturated, and while it is possible to develop certain industrial “clusters” or niches, there are limits to how many different niches the various exporting countries can find to exploit. The bottom line is that not all countries can succeed in enjoying rapid export-led growth at the same time. The very success of some countries creates challenges if not defeats for others. For example, Mexico displaced Japan, Korea and Taiwan in many segments of the US market after liberalizing its trade and joining NAFTA in the late 1980s and 1990s, but subsequently China displaced Mexico after the former joined the WTO in 2001 (Blecker and Esquivel, 2013).

The Mexican case suggests another cautionary note: although the total value of its exports of manufactures has grown enormously, a large portion of those exports consists of goods that are merely assembled in the country using imported parts and components. As a result, the *value added* (the difference between total value and input costs) is only a small portion of the total value of many Mexican exports, and as a result the gains in domestic job creation have been disappointing. Furthermore, Mexico’s manufactured exports are largely

produced by (or under contract with) foreign MNCs that generally keep their most innovative and high value-added operations elsewhere. These elements of Mexico's export strategy have limited the overall growth gains that the country has received from its exports (Blecker and Ibarra, 2013).

Indeed, production processes are now spread out over many different countries, with different stages of production taking place in (and inputs supplied from) numerous different countries. Thus, an increasing portion of global trade today consists in intermediate and semi-finished products, as opposed to the more traditional raw materials and finished goods. This new pattern of trade is sometimes referred to as *vertical specialization*, because countries specialize in different stages of production rather than particular final goods, and it is also related to the concept of *global supply (or value) chains*. Countries need to participate in global supply chains in order to be competitive in today's world economy, but emerging nations also need to be careful that they eventually move up into the more innovative and higher value-added links in these chains rather than remaining permanently limited to labour-intensive assembly operations.

CONCLUSIONS

Finding the most beneficial trade strategy for a country today is more complicated than the old (and increasingly sterile) debate about "free trade" versus "protectionism". The countries that have grown most successfully in the long run are those that have strategically deployed prudent means of promoting nascent domestic industries and encouraging

exports, especially of manufactures. But each country needs to find its own best strategy, given its economic structure and external constraints.

Paradoxically, the policies that may be most important for making the global trading system work more to the benefit of all nations may not be trade policies or trade agreements at all. Especially, reforming the international monetary system to prevent some countries from achieving trade surpluses based on undervalued currencies could help to restore more balanced and mutually beneficial trade. In addition, competition over global trade and investment opportunities is exacerbated by the chronic lack of aggregate demand throughout much of the world economy, a problem that has been aggravated by recent financial crises and the austerity policies adopted (rather misguidedly) in their wake. By adopting the types of macroeconomic policies recommended in other parts of this book – especially by targeting monetary and fiscal policies on the achievement of full employment – the global trading system could operate more to the benefit of all countries and with less conflict than it does at present.

KEYWORDS

- **Absolute competitive advantage:** a country having the lowest monetary cost of production of a good, as a result of some combination of low wages, a low currency value, or high productivity of labour; a key concept in the heterodox approach to trade.
- **Comparative advantage:** a country having the lowest relative (opportunity) cost of

producing a good, meaning that it has to give up less of other goods to produce it than other countries; the cornerstone of the orthodox approach to trade.

- **Infant industry protection:** using trade barriers such as tariffs (taxes on imports) and quotas (quantitative limits on imports) to promote the development of new industries that can eventually become internationally competitive.
- **Terms of trade:** the relative proportion in which goods are exchanged internationally (how much imports a country can buy with its exports); especially important for exporters of primary commodities (agricultural and mineral products).
- **Trade balance:** the difference between the value of a country's exports and its imports; a positive balance is called a "surplus" and a negative balance is a "deficit".
- **Trade liberalization:** reducing trade barriers such as tariffs and quotas, either through multilateral negotiations or via regional/preferential trade agreements.

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A PORTRAIT OF JOAN ROBINSON (1903–1983)

Joan Robinson was a colleague of John Maynard Keynes at the University of Cambridge and a key member of his intellectual circle in the 1930s, when he was writing the *General Theory*. She helped to bring the ideas of Karl Marx and Michał Kalecki into the somewhat insular world of Cambridge, and was also influenced by her discussions and debates with fellow Cantabrigians (especially Pierro Sraffa and Nicholas Kaldor). She made contributions to economics in a wide range of areas including imperfect competition, endogenous money, and economic development. However, she is best known for her work on economic growth and income distribution, especially in her *Accumulation of Capital* (1956) and *Essays in the Theory of Economic Growth* (1962). She was a major protagonist in the Cambridge controversies on capital theory from the 1950s through the 1970s.

Robinson's contributions to international economics began with her *Essays on the Theory of Employment* (1937), in which she criticized the use of “beggar-my-neighbour” remedies for unemployment including tariffs, subsidies, wage suppression, and competitive devaluations. She was also a trenchant critic of theories of automatic balance-of-payments adjustment and trade models that assumed balanced trade with full employment. In her later years, she denounced the “new mercantilism” in which the more advanced countries sought to maintain their advantages over less developed countries, often by advocating “free trade” for the latter while keeping their own markets closed. She was especially critical of the static nature of traditional models of comparative advantage, and called for a shift in economic theory generally from the use of equilibrium methods to analyses based on

irreversible processes occurring in “historical time”.

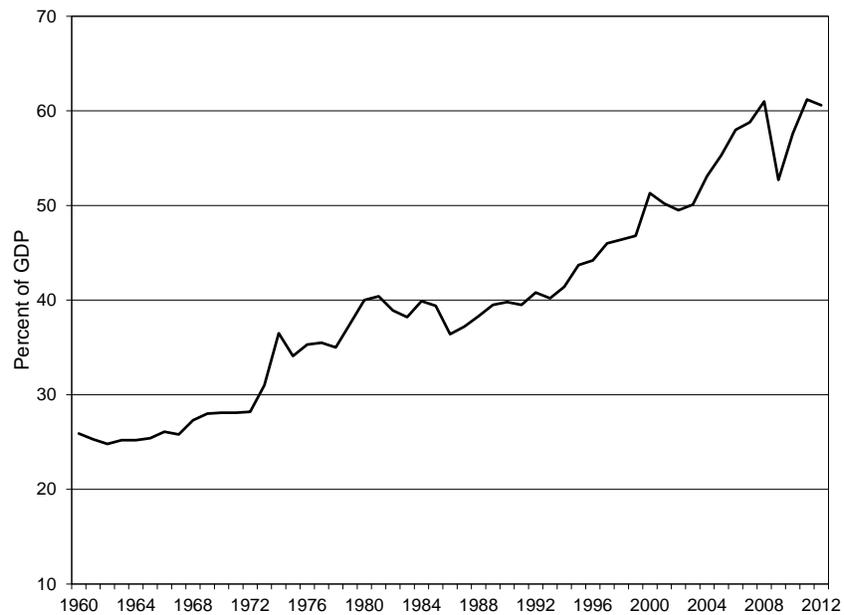
Table 13.1 Example of Ricardian comparative advantage

	Hours of labour required to produce:	
	Televisions (per unit)	Rice (per ton)
United States	2	4
East Asia	6	5

Table 13.2 Dynamic comparative advantage: technological improvement in East Asia

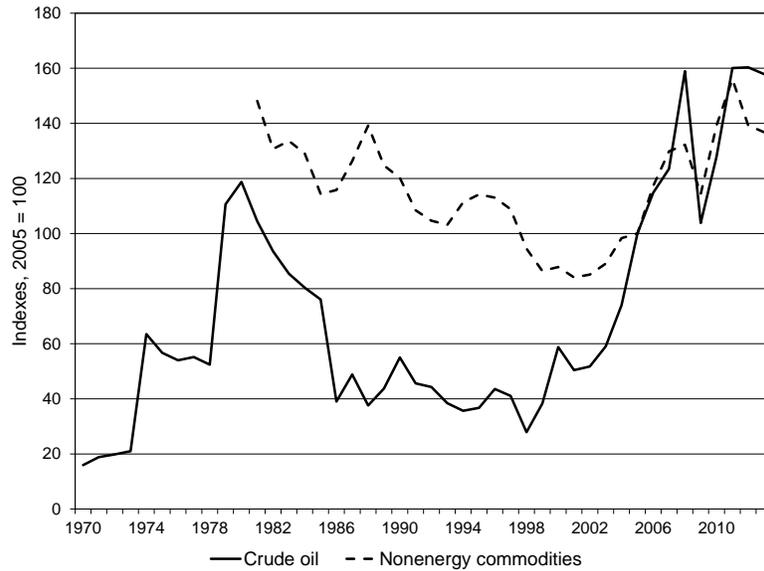
	Hours of labour required to produce:	
	Televisions (per unit)	Rice (per ton)
United States	2	4
East Asia	2	5

Figure 13.1 World trade in goods and services as a percentage of world GDP, 1960–2012



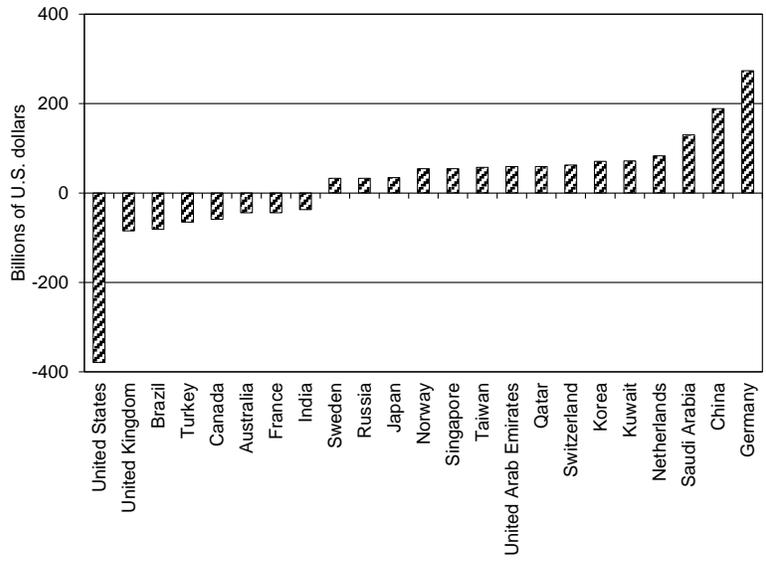
Source: World Bank, *World Development Indicators* (WDI Online), accessed June 4, 2014, <http://databank.worldbank.org/data/home.aspx>.

Figure 13.2 World terms of trade for crude oil and nonenergy primary commodities, 1970–2013



Sources: Price indexes from International Monetary Fund (IMF), *International Financial Statistics*, elibrary-data.imf.org, deflated by the US producer price index for industrial commodities less fuels from US Bureau of Labor Statistics (BLS), www.bls.gov. The non-energy index is not available before 1981.

Figure 13.3 Countries with current account surpluses and deficits in excess of 30 billion US dollars, 2013



Source: IMF, *World Economic Outlook Database*, April 2014, www.imf.org/external/pubs/ft/weo/2014/01/weodata/index.aspx. Data for several countries are IMF staff estimates.