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International Economic Developments since the 1970s

Introduction

Financial deregulation that has taken place over the last quarter century has meant that large flows of funds can move quickly around the world seeking out the highest risk-adjusted return for investors. Real estate is increasingly seen as another asset that can be used in portfolios for diversification purposes, and a variety of investment vehicles in real estate have emerged. This book seeks to examine the financing of real estate investment and development within the context of an increasingly integrated international world economy and financial system. The approach adopted in the book is based on three questions:

- How real estate's financial structure – the mixture of real estate financial instruments, markets and intermediaries operating in an economy – changes as economy grows and becomes internationalised
- How the developments in real estate finance – quality and quantity of real estate financial instruments, markets and intermediaries – impact economic growth
- How real estate's financial structure influences economic development

The exposure of the financial sector to real estate has become clearly visible in the last few years. Linked to this, the international integration of the

financial sector has also become highly apparent. The extent of financial integration and the scale and structure of the international financial markets today are significantly different from the 1970s when the earliest waves of internationalisation of real estate companies began.

In this chapter, international economic developments over the past 40 years are reviewed. This period is one of substantial change in the patterns of world trade and financial flows. Such change is set in the context of classical and contemporary trade theories. The globalisation of production and the increasing integration of different countries into the global system of trade are examined. This period also sees the development of world trading blocs such as the European Union (EU), the North American Free Trade Agreement (NAFTA) and a more loose affiliation of the Association of Southeast Asian Nations (ASEAN) together with Japan, South Korea and more recently China.

International trade theories: Setting the scene

In the asset market, investors invest in property in anticipation of realising returns. Property generates income (in the form of rent) and capital (in the form of change in capital values over time) returns for investors. Investors in the property asset market are both national and international. The nature of capital flows in property is of two types: (i) portfolio investment, where an investor resident in one country invests in stocks, bonds and other financial instruments related to property in the other country, and (ii) foreign direct investment (FDI), where an investor based in one country acquires property in the other country with the intention of managing it.

The development market is the market where developers combine land, material, capital and expertise to generate new space. Developers may be either national or international. In recent years, a number of international developers have been involved in development overseas. And finally, there is the user or occupation market. Their demand for space reflects economic fundamentals in that their demand is a derived demand for the use to which the space is put, being able to generate revenue from the sale of their product/service in the final market for goods and services. This occupier base may be local, regional, national or international.

There are three types of issues to consider: (i) internationalisation of economies through trade and FDI, which have implications for demand for real estate space; (ii) international capital flows in assets, including real estate; and (iii) internationalisation of real estate production processes and organisations. This chapter will explore various theoretical models that have been used in the economic literature to explain international trade in goods and services, capital and internationalisation of organisational structure.

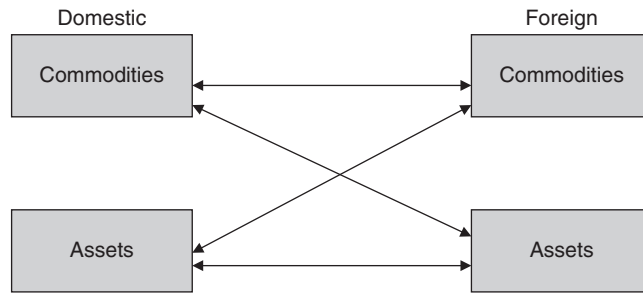


Figure 1.1 Types of international transactions.

International goods and capital flows

International trade in goods and capital flows are among the forms of transaction (other examples being trade in labour, technology, etc.) that take place between economic agents in different countries. Economic theory suggests that economic agents (consumers, producers, governments, etc.) can benefit from specialisation in production of certain commodities and exchange these 'products' for other goods and services. It is impossible for a country to be self-reliant without reducing its standard of living. There are three possible types of international transactions, as illustrated in Figure 1.1.

Residents of different countries could trade commodities for other commodities, or they could trade commodities for assets (i.e. that is for future commodities), or they could trade assets for other assets. All three types of exchange lead to gains from trade.

But, why does trade happen and how can trade between nations be explained theoretically?

Reasons for trade

There are five basic reasons why trade may take place between countries:

Differences in technology Advantageous trade can occur between countries if the countries differ in their technological abilities to produce commodities. Technology refers to the techniques used to convert resources (land, labour, capital) into outputs. The basis for trade in this Ricardian trade theory of comparative advantage is differences in technology.

Differences in resource endowments Advantageous trade can occur between countries if the countries differ in their endowments of resources. Resource endowments refer to the skills and abilities of a country's

workforce, the natural resources available within its borders (minerals, farmland, etc.) and the sophistication of its capital stock (machinery, infrastructure, communications systems). The basis for trade in this pure exchange model and the Heckscher–Ohlin (H–O) trade model is differences in resource endowments.

Differences in demand Advantageous trade can occur between countries if demands or preferences differ between countries. Individuals in different countries may have different preferences or demands for various products. The Chinese are likely to demand more rice than the Germans, even if facing the same price. Scots might demand more whisky, and the Japanese more fish, than Americans would, even if they all faced the same prices.

Existence of economies of scale in production The existence of economies of scale in production is sufficient to generate advantageous trade between two countries. Economies of scale refer to a production process in which production costs fall as the scale of production rises. This feature of production is also known as ‘increasing returns to scale’. This can also be linked to agglomeration economies in particular industries in certain locations (e.g. international finance in London or New York).

Existence of government policies Government taxation and subsidy programmes can generate advantages in the production of certain products. In these circumstances, advantageous trade may arise simply because of differences in government policies across countries.

Differences in return on capital Trade in capital may happen if the real return on capital across different countries varies. This may happen if demand for capital in present and future time periods differs among different countries.

The main reason for trade to take place is that countries find it advantageous to trade. As mentioned previously, it is impossible for any country to be self-reliant without reducing its standard of living. This can be understood from the following simple illustration. Suppose that there is one good that the world produces and there is one good that the world consumes. This good can be produced by all countries; however, each country can decide whether to produce the good domestically or import it (partially or fully). Figure 1.2 presents the market equilibrium for the good under (i) no trade and (ii) trade scenarios.

In economics, the demand curve describes the quantity of a good that a household or a firm chooses to buy at a given price. Similarly, the supply curve describes the quantity of good that a household or firm would like to sell at a particular price. If demands of individual households in a country

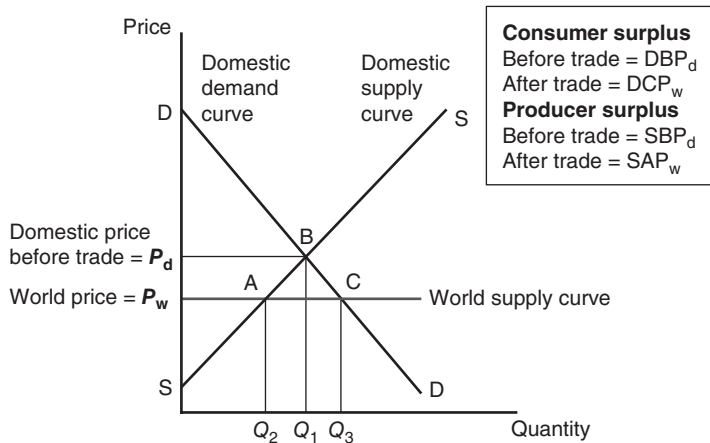


Figure 1.2 Demand, supply and market equilibrium.

are aggregated, we can obtain an aggregate demand curve that tells us the total quantity of that good demanded at each possible price. Similarly, an aggregate supply curve would tell us the total quantity of a good that would be supplied by a country at each possible price.

Consider first the case of a closed country (which means that this country does not engage in trade with foreign countries). Figure 1.2 plots the price on the vertical axis and quantity on the horizontal axis. The downward-sloping line DD is the aggregate domestic demand curve for the whole country, and the upward-sloping line SS is the aggregate domestic supply curve. The point of intersection of demand and supply curve is the market equilibrium. This point determines the price that will be paid and accepted in the market. The point is labelled as B , for equilibrium, the corresponding price P_d is the equilibrium price, and quantity Q_1 is the equilibrium quantity.

Now, suppose the country which was closed to trade opens its borders (removes restrictions that were not permitting trade to happen. Restrictions in the real world could take many forms, such as import tariffs, export restriction or quantity quotas) so that trade in goods and services can take place. The supply curve that the country faces now is the horizontal world supply curve. The world supply curve is horizontal because competition would prevent prices rising above this level. If prices rose, producers around the world would take this opportunity to expand their market and increase their production, thereby bringing the equilibrium price to P_d .

The supply curve that the country faces is not the original upward-sloping curve but the horizontal world supply curve. The demand curve, which depends on domestic preferences, does not change. The new demand–supply equilibrium will be at point C . Note that at this point the equilibrium price

of the good is $P_w < P_d$. Consumers demand quantity Q_3 . What happens to domestic producers? Does production shift abroad? The answer to this question is complicated by political economy of trade and the extent to which trade is protected by the country. However, in the aforementioned example, when there are no restrictions on trade after the opening up of the economy, the domestic producers could supply goods at world price up to a quantity Q_2 because their marginal cost of production up to Q_2 is less than or equal to the world price. Above Q_2 , the marginal cost of production would exceed the market price at which goods can be sold (=world price), so that producers would find it unprofitable to produce. The country with demand Q_3 would produce Q_2 domestically and import $(=Q_3 - Q_2)$ from the world market.

To understand the impact of trade on producers and consumers, let's use an economic concept called 'surplus'. Consumer surplus is the amount that consumers benefit by being able to purchase the good for a price that is less than they are willing to pay. For example, for all quantities supplied less than the equilibrium quantity, consumers are willing to pay higher than the equilibrium price. By paying equilibrium price, their surplus before trade is DBPd. The producer surplus is the amount by which producers benefit by selling at a market price mechanism that is higher than they would be willing to sell for. In the autarky (no trade) case, producer surplus is SBPd. Note that producer surplus flows through to owners of factors of production (labour, capital, land), unlike economic profit, which is 0 under perfect competition. If market for labour and capital is also perfectly competitive, producer surplus ends up as economic rent to the owners of scarce resources like land.

Let us see how trade affects the welfare of consumers and producers. The trade has opened up opportunities to buy goods at a lower price. For domestic consumers, trade is welfare enhancing. For domestic producers, however, the revenue has declined as they face price competition and find it unviable to produce more than Q_2 . Consumers' surplus, which was DBPd before trade, has increased to DCPw. Producers' surplus, however, has declined from SBPd to SAPw.

International trade is generally beneficial to nations; however, it is quite possible that trade may hurt some groups within the nation (in the aforementioned example, the welfare of producers has been affected). In other words, international trade has strong impact on the distribution of income. International trade can adversely affect owners of resources that are 'specific' to industries that compete with imports and cannot find alternative ways to redeploy these resources to alternative use (Krugman and Obstfeld, 2000, chapter 3). Trade could also affect the distribution of income between broad groups, between workers and owners of resources (Krugman and Obstfeld, 2000, chapter 4).

Theoretical models of trade

Economic discussion suggesting that trade is advantageous dates back to Adam Smith's *The Wealth of Nations*. In this early economics treatise, dating back to the eighteenth century, Adam Smith argues: 'If a foreign country can supply with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage'. The theory which Adam Smith proposed is based on the concept of *absolute advantage* in production. The idea here is simple and intuitive. If our country can produce some set of goods at lower cost than a foreign country, and if the foreign country can produce some other set of goods at a lower cost than we can produce them, then clearly it would be best for us to trade our relatively cheaper goods for their relatively cheaper goods. In this way, both countries may gain from trade. However, if one country has absolute advantage in all goods, should other countries engage in trade with this country? The answer is not obvious from an absolute advantage model.

The theory of comparative advantage

British economist David Ricardo proposed a comparative advantage theory in 1817 in his book *On the Principles of Political Economy and Taxation*. The fundamental idea of the Ricardian model of comparative advantage is that the basis of trade is differences in technology. Ricardo demonstrated, using an example with two countries, two goods and one country having productive advantage in both the goods, that the world output could be improved if each country specialised in the production of the good for which their opportunity cost was lowest. If appropriate terms of trade were then chosen, both countries could end up with more of both goods.

If there are two countries producing two goods and one country has productive advantage in both goods, to benefit from specialisation and free trade, the country with advantage in both goods should specialise and trade the good which it is 'most best' at producing, while the other should specialise and trade the good which it is 'least worse' at producing.

A simple way to demonstrate that countries can gain from trade is through a numerical example. Ricardo demonstrated using a two-country, two-good example, a country can gain from trade even if it has technological disadvantage in producing both goods. Let us assume that there are two countries, the United Kingdom and the United States; two goods, whisky and computers; and one factor of production, labour. Suppose the United Kingdom has absolute advantage in production of both these goods. Suppose, in the United Kingdom, the labour requirement to produce one unit of

Table 1.1 Summary of hypothetical inputs required for production.

Goods	United Kingdom – labour per unit	United States – labour per unit	Opportunity cost – United Kingdom	Opportunity cost – United States
Whisky	1	6	0.5	2
Computer	2	3	2	0.5

whisky is one and the labour requirement to produce one unit of computer is two. The United States can produce one unit of whisky by employing six units of labour and one unit of computer by employing three units of labour. Total available labour in each of these countries is 24 units. By assumption, the United Kingdom is more efficient in producing both goods, as the labour required to produce one unit of whisky in the United Kingdom is less than the labour required to produce one unit of whisky in the United States and the labour required to produce one unit of computer in the United Kingdom is less than the labour required to produce one unit of computer in the United States. In order to produce whisky, the United Kingdom must produce fewer computers. Economists use a term called opportunity cost to describe such trade-offs. The opportunity cost of whisky in terms of computers is the number of computers that could have been produced with the resources used to produce given units of whisky. The opportunity cost of whisky in the United Kingdom is 0.5, as this is the number of units of computer whose production is to be given up to produce one unit of whisky in the United Kingdom. The opportunity cost of computer in the United Kingdom is two units of whisky. The opportunity cost of whisky in the United States is two units of computers, and the opportunity cost of computer in the United States is 0.5 units of whisky. Table 1.1 summarises the aforementioned discussion.

Suppose that 24 labour units are available in both the United Kingdom and the United States. The production possibility frontiers (PPF) for both these countries are plotted in Figure 1.3. PPF is a graph that shows the different quantities of two goods that an economy could efficiently produce with limited productive resources. The PPF for the United Kingdom lies outside that for the United States. Since the size of both economies is assumed to be same (both have 24 units of labour), the United Kingdom has absolute advantage over the United States, because the United Kingdom can produce any possible combination of whisky and computer far more efficiently than the United States. The levels of production at points that will lie below the PPF make inefficient use of resources, and points above the PPF are infeasible. Points along the curve describe the trade-off between the two goods, that is, the opportunity cost. The opportunity cost of producing whisky is lower in the United Kingdom than in the United States. The United Kingdom has a comparative advantage in producing



Figure 1.3 Production possibility frontier.

Table 1.2 Consumption and production in autarky.

	Whisky	Computers
United Kingdom	18	3
United States	2	4
World total	20	7

whisky. Again, looking at Table 1.2, one can see that the opportunity cost of producing computers is lower in the United States than in the United Kingdom. This means that the United States has a comparative advantage in producing computers.

With full employment and efficient use of available technologies, production would occur at some point on the PPF. The level at which the economy would produce depends on the consumer demand for goods. Suppose the United Kingdom and the United States do not engage in trade (a situation known in economics as 'autarky'). Producers will produce at a level which consumers demand at prevailing prices. In autarky, this would mean that supply would equal demand. Let us assume that the consumption demand for whisky in the United Kingdom is six units and consumption demand for computers is nine units. This would be the point at which the United Kingdom would produce and would be represented by a point on the PPF. Suppose the demand for whisky in the United States is two units and the demand for computers is four units. Producers in the United States would produce at these levels, and this would be represented as a point on the PPF for the United States. In autarky, the total world output of whisky is eight

Table 1.3 Production with specialisation in the comparative advantage good.

	Whisky	Computers
United Kingdom	24	0
United States	0	8
World total	24	8

Table 1.4 Consumption and production after trade.

	Whisky		Computers	
	Consumption	Production	Consumption*	Production
United Kingdom	20	24	3.5	0
United States	4	0	4.5	8
World total	24	24	8	8

*Assuming that consumption of 0.5 computer is possible.

units and the output of computers is 13 units. Table 1.2 presents the level of output in the United Kingdom and the United States in autarky.

Suppose that the United Kingdom and the United States each specialises in the commodity in which it has comparative advantage. The output levels are represented in Table 1.3.

Table 1.3 indicates that if the United Kingdom and the United States each specialise in a commodity in which it has comparative advantage, world output increases. The countries, however, would not benefit unless trade were permitted. These levels of production were possible even in autarky, but countries were not producing at these levels because both goods were demanded by the residents of these countries. Production would match the consumption within a country if no trade were permitted.

Let us allow for trade. There is a surplus whisky production of four units and surplus computer production of one unit. If we allow this surplus to be split equally between the United Kingdom and the United States, their consumption of goods will be at the levels shown in Table 1.4.

As can be seen from Table 1.4, consumption of goods in both countries has increased with trade rather than autarky. The aforementioned numerical example illustrates that even under circumstances where one country had absolute advantage in production of both the goods, if countries specialised in production of goods in which they had comparative advantage and trade, world output would increase. Both countries would gain from trade.

The aforementioned example demonstrates only one possible outcome of the model. The conclusions presented previously are more likely possibilities rather than generalised results. It is quite possible that, with a different

choice of production/consumption points in autarky, world output might not rise for both goods upon specialisation. This would mean that, even after trade, both countries might not gain. Moreover, in the aforementioned example, we assumed a term of trade that generated the conclusion described previously: that both countries benefit from trade. Under a very different assumption regarding terms of trade, the conclusion may be that only one country benefits from trade. Even if the country has more of both goods, the distribution of these may not be uniform across all consumers. Some consumers within a country may benefit, while others may not benefit at all.

These questions could be answered by describing the model more fully, which is beyond the scope of this book (a detailed model is presented in Krugman and Obstfeld, 2000, chapters 2 and 3); however, the conclusions that emerge from generalisation suggest that the proposition that trade is beneficial is 'unqualified'. The benefits from trade for a country could be thought of as an indirect method of production. Instead of producing a good for itself, the country could produce another good and trade with another country for the desired good. Whenever a good is imported, it is true that this indirect production requires less labour than when the good is produced domestically. Trade also enlarges the consumption possibilities of a country.

The Heckscher–Ohlin trade model

The basis for trade in a comparative advantage model is the difference in efficiency in production of goods and services across countries. However, if, say, both countries had the same production efficiency, would trade still be possible? An answer to this question is provided by another important theory called the H–O trade model, proposed by two Swedish economists. The rationale for trade in the H–O model is the difference in resources between countries. The H–O model emphasises the interplay between the proportions in which different factors of production are available in different countries and the proportions in which they are used in producing different goods. We develop the H–O model by using a simple example of two economies which can produce two goods using two factors of production, and we start with an autarky case, that is, these two economies do not trade. This is a convenient starting point, as it will be interesting to see what happens when the assumption regarding no trade is lifted.

Assumptions

In our simple model, there are two countries (England and Portugal) which can produce two goods (cloth and wine). Production of goods requires two inputs (labour measured in hours and land measured in acres). England has

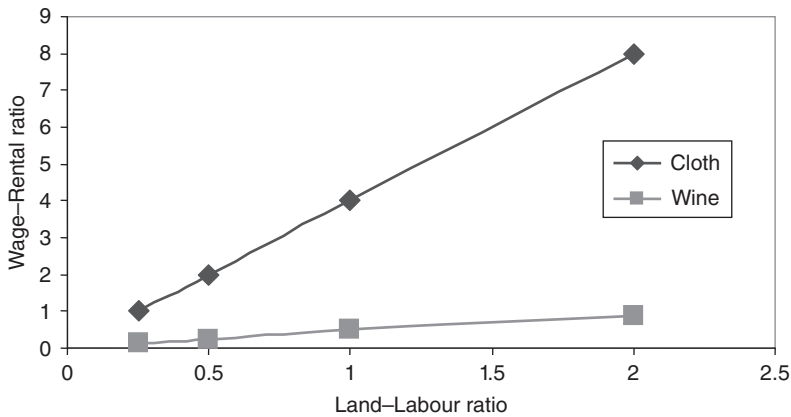


Figure 1.4 Factor prices and input choice in China.

a total labour stock of 500 hours, and Portugal has a total labour stock of 200 hours. England has a land area of 1000 acres and Portugal's land area is 600 acres:

England uses 0.5 acres to produce 1 metre of cloth.

England uses 1 hour to produce 1 metre of cloth.

England uses 2 acres to produce 1 gallon of wine.

England uses 0.5 hours to produce 1 gallon of wine.

Total supply of land in England = 1000 acres.

Total supply of labour in England = 500 hours.

An important point to bear in mind here is the use of word 'uses' instead of 'requires' as in the Ricardian model. The reason for this change in the play of words is that in a two-factor economy, there is a possibility of choice in the use of inputs. For example, English cloth producers may be able to produce more cloth per acre of land by employing more labour. The factor combination choice that producers would make would depend on the relative cost of land and labour. If land rent is high and wages are low, producers use less land and more labour per unit of output. If wages are high and land rents low, they use more land and less labour per unit of output. Assume that the costs in both countries are represented in U.S. dollar terms rather than on their domestic currency basis. Suppose that the wage rate per hour of labour in England is \$2 and land rent per acre in England is \$4, and the input choices made previously are dependent on the ratio of these two-factor prices. The land rent to wage ratio is 2 (obtained by dividing \$4/\$2). There is a relation between wage-rental ratio and land-labour ratio, as shown in Figure 1.4. The curve for cloth lies to the left of the curve for wine, indicating that, at any given factor price, production of wine will always use a higher ratio of

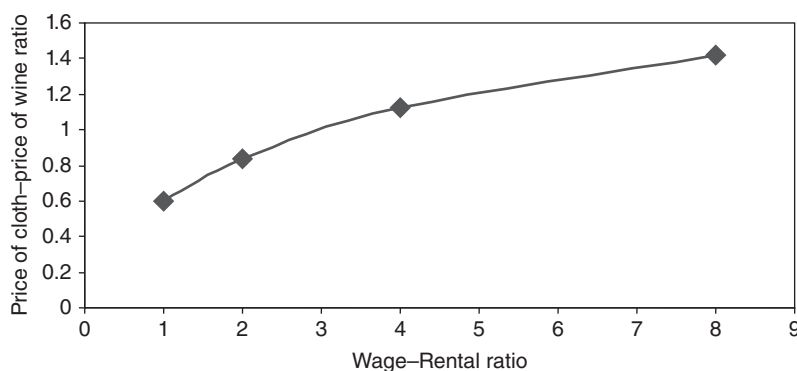


Figure 1.5 Factor prices and goods prices in China.

land than production of cloth. Wine is more land intensive than cloth, and cloth is more labour intensive than wine.

To start with the autarky case, England and Portugal don't engage in trade, and England will produce both commodities. Competition in each sector will ensure that the price of each good equals its cost of production (economic profit is 0 under perfect competition). The cost of production depends on the factor prices. If land rent is higher, production cost of the good that is land intensive will be higher. For a closed economy, if relative factor prices increase, the increase in the price of the commodity intensive in that factor is higher than the increase in the price of the other commodity, which does not use this factor as intensively in its production. There is a direct relationship between wage-rental ratio and price of cloth (P_c)/price of wine (P_w) ratio, shown by the upward-sloping curve in Figure 1.5. It is easy to draw this curve. For each wage-rental ratio, assume that the rents do not change and only the wage rate changes. Calculate wage rate for each level of wage-rental ratio by multiplying the ratio by rent. After calculating wage rate, production cost in each sector can be calculated by multiplying per unit of output by factor prices by respective factor inputs and by adding these factor costs per unit of output together. In a competitive market, production cost would equal price. For each wage-rental level, the ratio P_c/P_w can be obtained by dividing price of cloth by price of wine.

In our example, if the wage rate increased and the level of land rent remained the same, the price of cloth relative to the price of wine would increase more rapidly because cloth production requires more labour per unit of output than wine. The way to see this is to put Figure 1.4 and Figure 1.5 together (see Figure 1.6).

An interesting relation between price of cloth/price of wine, land-labour ratio and wage-rental ratio emerges. If the relative price of cloth were to rise, this would also raise wages relative to land rent, as can be seen from the

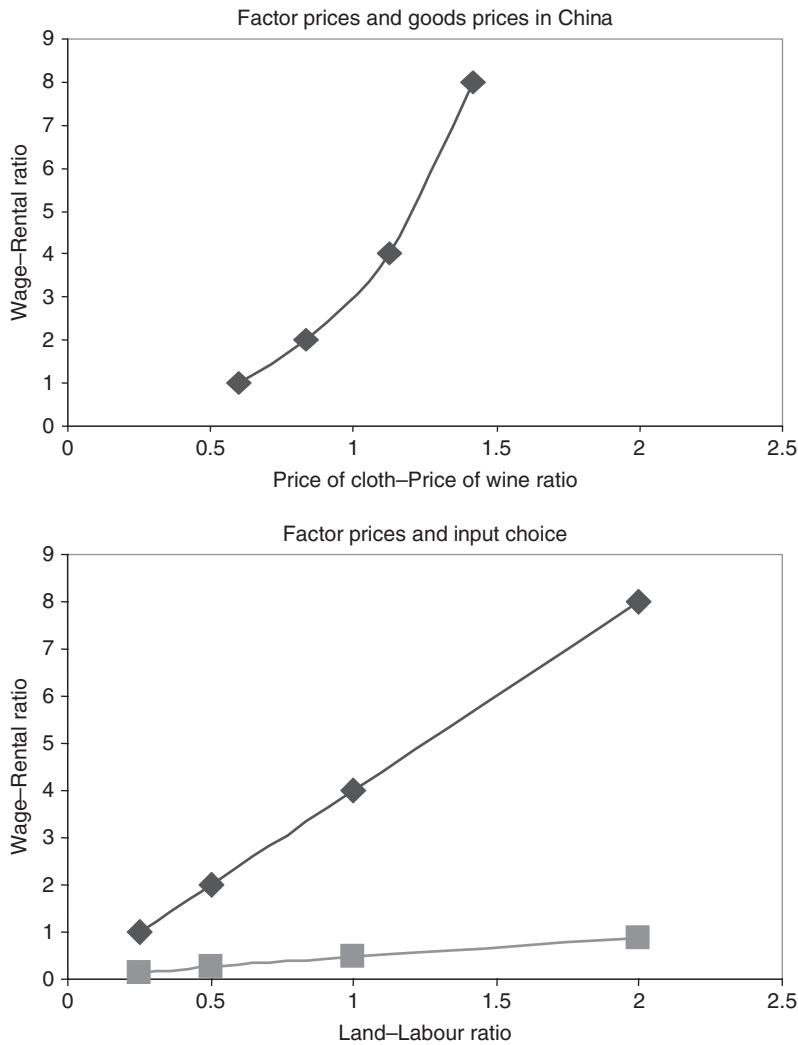


Figure 1.6 Wage-rental ratios.

left figure. A rise in wage-rental ratio would cause an increase in land-labour ratio, and both the sectors would shift their factor use towards land. Another important observation that could be made from the left figure is that an increase in price of cloth/price of wine ratio would lead to an increase in wages far larger than an increase in land rent.

Let us put together the story of two goods and two factors in the economy. Taking the relative price of cloth to wine as given, we can determine the wage-rental ratio which in turn would determine the land-labour ratio in the production of cloth and wine, as discussed earlier. The total factor endowments of labour and land in England are fixed, and we assume that

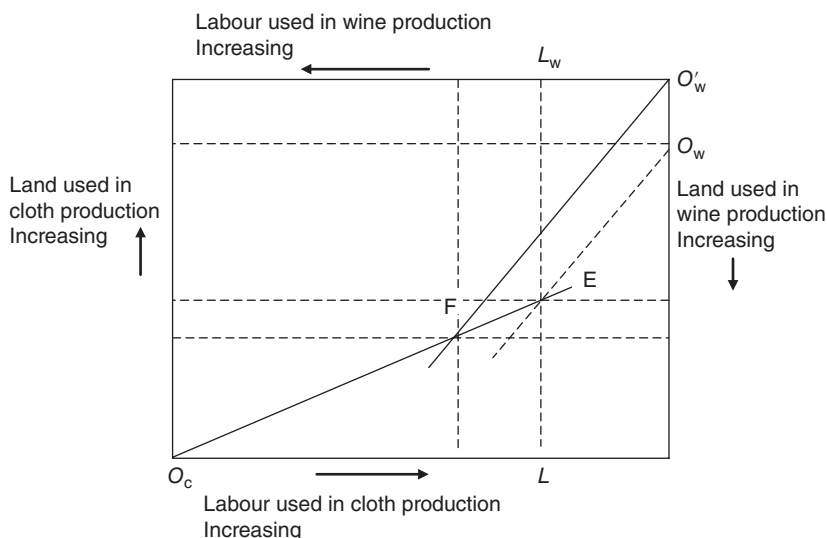


Figure 1.7 Resource allocation for production of two goods for the two countries.
 Source: Krugman and Obstfeld (2009) © 2009. Printed and electronically reproduced by permission of Pearson Educational, Inc.

England would employ its supply of labour and land fully. Full employment of factors would determine the factor allocation across sectors.

The factor allocation across sectors could be shown using the box diagram (Figure 1.7).

Figure 1.7 is a convenient representation of allocation of resources across two goods in a two-factor economy. Total labour supply in the economy is plotted as the horizontal axis, and total land supply is plotted as the vertical axis. The resource allocation for wine production is shown with its origin at O_c , and the resource allocation for cloth production is shown with its origin at O_w . The allocation of resources across the two sectors is represented by point E. At this equilibrium allocation, $O_c L_c$ is the labour used in production of cloth, and $O_c R_c$ is the land used in the production of cloth. $O_w L_w$ is the labour used in production of wine and $O_w R_w$ is the land used in production of wine. The total endowment of labour in England is $500 = O_w L_w + O_c L_c$, and the total endowment of land is $1000 = O_w R_w + O_c R_c$. The point E has been determined from Figure 1.7. Given the cloth to wine prices, we can determine the rent to wage ratio in cloth production on the left side of the figure. Projecting rent to wage ratio in cloth production to the right side of the figure gives the land-labour ratio for cloth production. A straight line drawn from O_c in Figure 1.7, with the calculated land-labour ratio for cloth production as slope, is the line on which point E must lie. A similar straight line can be drawn from O_w once the slope of land-labour ratio in wine production is known. E is the point where these two lines intersect.

Suppose the land availability in England increases, holding both good prices and labour supply fixed. The increased supply of land makes the box taller. The origin for production of wine shifts from O_w to O'_w . Again, drawing the land–labour slope line originating at O'_w , one can see that the equilibrium point has shifted from E to F. This has important implications because it suggests that the land and labour use in production of cloth has reduced. It also suggests that land and labour use in production of wine has increased. With increased land supply, the possibility of producing wine increases substantially, and the economy shifts its production to wine production. An economy would tend to be relatively effective at producing goods that are intensive in the factors with which the country is relatively well endowed (Krugman and Obstfeld, 2000, chapter 4).

A similar description of the other two-factor economy, Portugal, can be offered. Suppose residents in England and Portugal have similar tastes and therefore these economies have identical demand for cloth and wine when faced with similar relative price of the two goods. Both these economies have similar technologies for producing wine and cloth. This means that the land–labour ratio to produce one unit of wine or cloth is the same in England and Portugal. The assumptions made previously with regard to England and Portugal suggest that England is labour abundant in comparison to Portugal, because the land–labour ratio in England is 2, while the land–labour ratio in Portugal is 3. Production of cloth is more labour intensive than production of wine. The English PPF relative to Portugal is shifted more in the direction of cloth than in the direction of wine. Other things being equal, England would have a higher ratio of cloth to wine.

With trade, the relative price of cloth in terms of wine would be the same across England and Portugal. Since England and Portugal differ in factor abundances, for any ratio of price of cloth to wine, English production would be skewed towards cloth production. Portugal would specialise in the production of wine.

The H–O model suggests that the reason for trade is factor endowment. A country which is abundant in labour should specialise in production of goods that are labour intensive, and a country which is capital intensive should specialise in production of commodities that are capital intensive. Both these countries would benefit from trade.

The inter-temporal trade model

The exchange of goods and services is one of the ways in which economies trade with each other. The other mode of trade is through the movement of capital. International capital transactions are substantial and take many forms through which economic agents in one country provide productive capital to agents in other countries. The mode of capital transfer is through

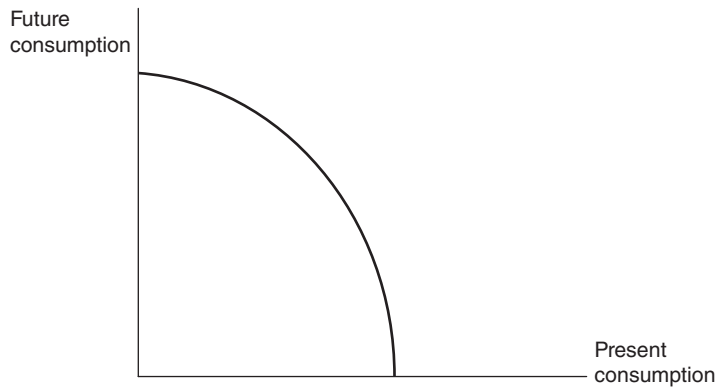


Figure 1.8 Inter-temporal PPF.

Source: Adapted from Krugman and Obstfeld (2000).

financial transactions. For example, economic agents resident in the United Kingdom buy stocks of firms resident in Hong Kong. It is like saying that residents in the United Kingdom provide loans to residents in Hong Kong. Two points that need to be borne in mind in this example are as follows: (i) the loan provided today would not be repaid until the next period, and (ii) UK residents investing in Hong Kong dollars would be repaid in Hong Kong dollars. This means that they would have to exchange their domestic currency, pounds sterling, for Hong Kong dollars, and when they were repaid in the next period in Hong Kong dollars, they would exchange these for pounds sterling and repatriate them to the United Kingdom. Expectations about exchange rate become an important part of international capital transfer decisions. Another example where this is also relevant is the purchase of U.S. government debt by China. If the Chinese currency appreciated (or was revalued), they would receive a lower domestic currency return from their U.S. debt purchases.

International borrowing and lending can be interpreted as a type of international trade – trade of present goods for goods in the future. Consider an economy that produces one good and exists for two periods – the present and the future. The economy faces a trade-off in the production of the consumption good between the present and future periods. The inter-temporal PPF for the economy is shown in Figure 1.8.

The inter-temporal production possibility curves of different countries would differ from each other. For some countries, these would reflect production possibilities that are biased towards present output and for others production possibilities that are biased towards future output. Suppose there are two countries, domestic and foreign, with different inter-temporal PPFs. Domestic's production possibilities are biased towards present output, and foreign's are biased towards future output. In the absence of international

borrowing and lending, the relative price of future consumption will be higher in domestic than foreign.

However, with trade, domestic would export present consumption and import future consumption. The price of future consumption to present consumption is a function of real interest rate. Under the assumption that real interest rate is positive, the price of future consumption is lower than the price of present consumption. If trade in capital is permitted, the relative price of future consumption and world interest rate will be determined by the world relative supply and demand of future consumption (Krugman and Obstfeld, 2000, p. 169). A country that has comparative advantage in production of future consumption would have a lower production cost of future consumption. With trade in capital permitted, this country would offer a higher interest rate than the one where the production costs of future consumption are not as low. This would in turn mean that countries who borrow in the international market are those where opportunities exist.

International trade in capital and the role of international capital markets

Capital markets are markets where people, companies and governments with more funds than they need (because they save some of their income) transfer those funds to people, companies or governments who have a shortage of funds (because they spend more than their income). The two major capital markets are for stocks and bonds. Companies issue securities on the capital markets to raise capital for productive uses. Investors (savers – people, companies and governments) with surplus funds (savings) invest in these securities in anticipation of cash flows in the future. Recent developments in financial engineering have led to development and trading of a wide variety of financial and physical capital (assets) including stocks, bonds (government and corporate), bank deposits denominated in different currencies, commodities (such as petroleum, wheat, bauxite, gold), derivatives (forward contracts, futures contracts, swaps, options contracts, etc.), real estate and land, securities and derivatives backed by real estate assets (such as mortgage-backed securities, real estate investment trusts securities) and factories and equipment. The role of capital markets is to promote economic efficiency by channelling money from those who do not have an immediate use for it to those who do. The physical places where stocks, bonds and other derivatives are bought, sold and traded are called stock exchanges. Stock exchanges play a very important role in capital transfer, as they provide the regulation of company listings, a price-forming mechanism, the supervision of trading, the authorisation of members, the settlement of transactions and the publication of trade data and price. Examples of major stock exchanges are the New York Stock Exchange

(NYSE), the National Association of Securities Dealers Automated Quotations (NASDAQ), the London Stock Exchange (LSE), the Tokyo Stock Exchange (TSE), the Hong Kong Stock Exchange, the Singapore Stock Exchange and stock exchanges in many other cities.

International capital markets are a group of markets (in New York, London, Tokyo, Singapore and many other financial cities) that trade different types of financial and physical assets. Though individual country capital markets are regulated by domestic regulatory authorities, there is increasing evidence of capital flows into foreign assets traded on foreign capital markets. During the 1980s and 1990s, it became quite common for multinational companies to seek a listing on several foreign stock exchanges. The reasons for listing on foreign stock exchanges could have been to attract wider investor interests or because local exchanges were small for the ambitions of the company. Multinational companies conduct their operations and businesses in local currency (different from their domestic currency), and, to hedge against currency risk, they often prefer to raise capital from local markets in local currency by listing on local stock exchanges. One of the consequences of these developments has been the expansion in primary issues and secondary market trading in nondomestic equities. Foreign listing requires compliance with foreign accounting and listing regulations. However, companies are willing to bear that risk because of the advantages associated with accessing larger capital markets. German automobile major Daimler-Benz accepted the U.S. accounting rules, stricter than those in Germany, to be able to list on New York.

It may, however, be emphasised here that, though capital markets have become internationalised, there is no one single market. In essence, the international capital market is a number of closely integrated markets which conduct any transaction with an international dimension. Examples of assets traded on international capital markets are foreign exchange, internationally traded stocks and bonds (Eurobonds), American Depository Receipts (ADRs) or Global Depository Receipts (GDRs) issued by public enterprises in developing and transitional economies.

The Dunning eclectic paradigm

Traditional trade models are able to explain international capital flows, but the explanation is only partial. Borrowing and lending, as envisaged in the inter-temporal trade model described earlier, are only one of the ways through which capital movements occur. The World Trade Organization (WTO) recognises two types of capital flows: (i) portfolio investment of the type described in the inter-temporal trade model, where an investor resident in one country invests in stocks, bonds and other financial instruments in

the other country, and (ii) FDI, where an investor based in one country acquires assets in the other country with the intention of managing them. FDI involves the transfer of much more than capital alone. Technological expertise, marketing and management skills and other firm-specific resources are transferred to the host country as well. Each country has its own way of defining whether a particular investment should be classified as an FDI or a foreign portfolio investment. When measuring foreign investment flows, UNCTAD defines FDI as investments involving ownerships of more than 10%. Investments of less than 10% are classified as portfolio investments. Portfolio investors, with a small minority holding in the investment, exercise very little, if any, control in the asset and thus are typically passive investors.

Traditional trade theories find it difficult to explain the ways in which FDI finances the production that is undertaken by transnational corporations (TNCs). Traditional trade theorists were less concerned with explanations of the composition of goods and factors actually traded across boundaries than with theorising on what would happen in the real world if certain conditions were present. The H–O model, discussed previously, asserted that, provided certain conditions were met, countries would specialise in the production of goods which required relatively large inputs of resources with which they were comparatively well endowed and would export these in exchange for others which required relatively large inputs of factors with which they were comparatively poorly endowed. Among the conditions were that countries had two homogeneous inputs, labour and capital, both of which were locationally immobile. Inputs were converted into outputs by the most efficient and internationally identical technologies. All enterprises were price-takers, and there were no barriers to trade and no transaction costs. International tastes were similar. These assumptions and their implications have been criticised in the literature. Under the conditions of factor immobility, identical technologies and perfect competition, the only possible form of international involvement is through international trade; production by one country's enterprises for a foreign market must be undertaken within the exporting country; and all enterprises have equal access to location-specific endowments.

One of the deductions of the H–O model is that trade will equalise factor prices. Replacing the assumption of factor immobility with that of immobility of goods, it may be shown that movement of factors also responds to resource endowments. This was used to explain the international (portfolio) capital movements in terms of relative prices or differential interest rates. For many years, trade theory and capital theory paralleled each other, but eventually, the two were formally integrated into the factor price equalisation theorem by Samuelson (1948) and Mundell (1957). Simply stated, the theorem says that when the prices of the output goods are equalised between

countries as they move to free trade, then the prices of the factors (capital and labour) will also be equalised between countries. This implies that free trade will equalise the wages of workers and the rents earned on capital throughout the world. The theorem derives from the assumptions of the H-O model, the most critical of which is the assumption that the two countries share the same production technology and that markets are perfectly competitive. Over the last four decades, trade models introduced more realism to traditional trade theories in an attempt to explain observed trade flows (Dunning, 2000).

Another important development observed in international capital flows has been growth and composition of FDI or production financed by such investment. Earlier explanations based on either location theory or investment theory did not quite convincingly explain the 'non-trade' nature of involvement of FDI flows. FDI flows have raised the 'non-trade' nature of international engagement of a country alongside trade, which needs to be explained. A country may engage economically with the outside world by letting economic agents (irrespective of their nationality) use resources located within its boundaries to produce goods and services for sale outside its boundaries or may import resources or products based on those resources located in other countries. This has been the view of traditional trade theories. However, when we view the involvement of a country's economic agents in servicing foreign markets with goods and services, irrespective of where resources needed to do this are located or used, and the extent to which its own economic agents are supplied goods by foreign-owned firms, irrespective of where the production is undertaken, explanations based on geographical boundaries become insufficient. A country's economic space is perceived more in terms of the markets exploited by its institutions than its geographical boundaries. Economic involvement of one country's enterprises in another may be for the purposes of supplying both foreign and domestic markets. Production for a particular foreign market may be wholly or partly located in the home country, in the foreign market, in a third country or in a combination of the three. The capability of a home country's enterprise to supply either a foreign or a domestic market from a foreign production base depends on its possessing certain resource endowments not available to, or not utilised by, another country's enterprises. These endowments include both tangible assets (such as natural resources, labour, capital) and intangible assets (such as knowledge, organisation and entrepreneurial skills, access to markets). Such endowments could be purely location specific to the home country; in other words, they have to be used where they are located and are available to all firms, or they could be ownership specific, that is, internal to the enterprise of the home country but capable of being used with other resources in the home country or elsewhere.

For some kinds of trade, it is sufficient for the exporting countries to have a location endowment advantage over the importing country. Trade envisaged by the Ricardian or H–O trade model is of this type. Trade in highly skill-intensive or sophisticated consumer goods is based more on ownership advantages of exporting firms. This, however, presupposes that these advantages are better used in combination with location-specific endowments in the exporting country rather than in the importing (or a third) country. Where, however, location-specific endowments favour the importing (or a third) country, foreign production will replace trade. Foreign production, then, implies that location-specific endowments favour a foreign country, but ownership-specific endowments favour the home country's firms. Advantages associated with ownership-specific endowments are sufficient to overcome the cost of producing in a foreign environment.

John Dunning (1977) proposed an eclectic paradigm to explain international capital flows which take the form of FDI. The focus of the paradigm is to explain why firms choose the FDI route to participate in foreign markets rather than employing seemingly more convenient means of market participation such as strategic alliances, joint ventures or management contracts. Dunning argued that FDI is the most effective vehicle for serving foreign markets when the firm possesses an ordered series of advantages that arise under conditions of imperfect competition.

According to Dunning, to undertake production in foreign markets, the firm must first have some competitive advantages in its home market that are specific to the firm. These advantages arise out of inputs which an enterprise may create for itself – certain types of technology and organisation skills – or can purchase from other institutions, but over which, in doing so, it acquires some proprietary right of use. Such ownership-specific inputs may take the form of legally protected rights (such as patents, brand names, trademarks) or of a commercial monopoly through acquisition of a particular raw material essential to the production of the product or of exclusive control over particular market outlets, or there may be scale advantages. Firms that engage in production at international locations operate in different location-specific environments, from which they may derive additional ownership advantages – such as their ability to engage in international transfer pricing, to shift liquid assets between currency areas to hedge against exchange rate risk and to reduce the impact of institutional risk in a country by operating parallel production capacity in other countries. Although the origin of ownership advantages may be linked to location-specific endowments, their use is not so defined. The ability of enterprises to acquire ownership endowments is clearly not unrelated to the endowment specific to the countries in which they operate and particularly their country of origin. But whatever the significance of the country of origin of such inputs, they are worth separating from those which are location specific,

because the enterprise possessing them can exploit them wherever it wishes, usually at a minimal transfer cost.

The possession of ownership advantages determines which firms will supply a particular foreign market, and the pattern of location endowments explains whether the firm will supply the market by exports or by local production. Whatever route the firm chooses, it could (i) supply the foreign market by selling or leasing its ownership advantages to a firm located in a foreign market or (ii) internalise its capital, technology and management skills within itself to produce goods. TNCs internalise the production of goods rather than externalising the use of ownership advantages by engaging in portfolio investment, licensing, management contracts, etc. Dunning (1977) argues that enterprises internalise their ownership endowments to avoid the disadvantages, or capitalise on the imperfections, of one or the other of the two main external mechanisms of resource allocation – the market and the public (government) system of resource allocation. Market imperfections arise wherever negotiation or transaction costs are high or information about a product is not fully available or is costly to acquire. Public intervention in the allocation of resources may also encourage firms to internalise their activities.

Based on this, Dunning proposed three sets of advantages (OLI advantages) that lead enterprises to locate part of their production process in a foreign market. These are:

Ownership (O advantage): A firm's O advantage must be unique to the firm, and it must be possible for those advantages to be transferred abroad. As discussed earlier, O advantages largely take the form of common governance or the possession of intangible assets, such as specific know-how, proprietary technology, patents or brand loyalty, which are exclusive or specific to the firm possessing them. The greater the O advantages of enterprises, the more incentive firms have to exploit those advantages in foreign markets.

Location (L advantage): Location advantages are due to economic differences among countries and may take many forms. The host country may offer such features as low-cost labour, skilled labour, better access to raw materials or a large market. In addition, it may simply offer the opportunity for a firm to make a defensive investment to prevent its competitors from gaining a foothold. In the absence of L advantages such as these, there would be no incentive for the firm to engage in FDI, and foreign markets would be best served entirely by exports.

Internalisation (I advantage): When O and L advantages exist, internalisation advantages allow the firm to minimise transaction costs and other agency costs that would likely occur if the firm were to engage in some other form of market penetration strategy, such as a joint venture or strategic

alliance. This would mean that the cost of directly managing and controlling all activities of the enterprise would be less than the cost of operating in any other manner. By direct entry, the cost of monitoring foreign partners, having information filtered through third parties, dealing with foreign financial institutions, etc., would be mitigated. If the firm had the ability to effectively exert control over its value chain, it would be more beneficial to the firm to utilise its I advantages than to enter into leasing, franchising or other types of arrangements.

Porter's model of competitive advantage of nations

The reasons for trade among nations in Ricardo's comparative advantage model or the H-O model are differences in the following factor endowments: land, location, labour, natural resources and local population size. These factor endowments are largely inherited and difficult to influence. Traditional models, though interesting in understanding the rationale for trade, offer a rather passive view of national economic opportunity. Singapore has very little of these factor endowments but is a very important global trade partner. Dubai has emerged as a global city without boasting many of the factor endowments necessary for comparative advantage.

Porter (1990) argues that competitiveness of nations and industrial growth can hardly be built on the aforementioned passive factors. According to him, the most important definition of the competitiveness of nations is 'national productivity' (Porter, 1990, p. 6). Porter proposed that the competitiveness of nations depends on four broad attributes (four diamonds) of the national location, namely, factor conditions, demand conditions, related and supporting industries and firms and strategy and rivalry.

Porter's factor conditions require that a nation has to have an appropriate supply of factors to be successful. These factors are land, labour and capital, but the interpretation of these is far more specific than suggested by comparative advantage or the H-O model. While interpreting factors, Porter looks at these at highly disaggregated levels. Distinctions are drawn between basic factors, such as climate and unskilled labour, and advanced factors, such as highly skilled labour and infrastructure. Basic factors are not sufficient for competitiveness, and the nation has to create advanced factors. Similarly, there is a distinction between generalised factors and specialised factors. Generalised factors can be deployed in a wide range of industries, while specialised factors are industry specific. Abundance of a factor supply does help in building competitive industry, as in the case of Denmark's success in furniture due to the availability of a pool of trained graduate furniture designers (Porter, 1990, p. 78; Davies and Ellis, 2000). The lack of availability of factors could also prove to be a boon in disguise by creating an

environment for innovation if a nation wants to achieve competitiveness. Italy's high cost of capital and energy and shortages of basic raw materials led its steel producers to develop mini steel mill technology, in which Italy is the world leader (Porter, 1990, p. 82; Davies and Ellis, 2000).

Porter offers three demand conditions for a nation's competitiveness. He suggests that a country would be competitive in an industry which is more important at home than anywhere else. An example is Swedish industries, which are highly competitive in high-voltage electricity distribution over long distances. The reason for their competitiveness is their experience in the home market in supplying electricity to distant and remote locations where energy-intensive paper and steel industries are located. The second condition is that demanding home consumers force companies to meet high standards. Americans' desire for convenience led to a fast-food revolution, which has spread to other countries as well (Davies and Ellis, 2000). The third condition is that firms in the home market anticipate the needs of consumers in other countries. Japanese consumers and government forced firms to produce energy-saving products even before energy costs became important (Davies and Ellis, 2000). These three conditions are not necessarily dependent on the size of the domestic market, but force industries to innovate, giving them an edge over others in international competition, though a large domestic market which supported the aforementioned three demand conditions would be highly supportive of international competitiveness.

Porter argues that a nation's industries will be better able to compete in the international market if there are clusters of industries in the home economy, which are linked vertically and horizontally through demand, supply, technology, distribution and consumer networks. California has an IT and ITES cluster, which has helped firms located there become internationally competitive.

The fourth attribute for the competitiveness of nations proposed by Porter is concerned with the strategies and structures of domestic firms and the extent of rivalry between them. If the business environment favours family-run firms, the nation will specialise in industries that do not experience economies of scale, as in Italy. If the executives are dominated by engineers, the nation will have competitive advantage in those sectors that require high-technology content, as in Germany. If the institutional structures for raising capital favour returns in the short term, the nation will be successful in industries which offer short-term returns. In addition to strategies and structures, Porter argues for the importance of rivalry of firms in domestic markets. This is important for innovation and leads to competitiveness internationally.

In addition to these four attributes, two other factors, chance and government, also play a very important role (Davies and Ellis, 2000).

Chance refers to events, such as war, which offer opportunities to firms. Government plays a role through policies. Proactive government policies in Dubai have contributed to the business competitiveness of Dubai in the world market.

Another important feature of Porter's theory is that nations follow an evolutionary path of industrial development, moving from the factor-driven to the investment-driven, to the innovation-driven and finally to the wealth-driven stage. For competitiveness, attributes have to be compatible with the stage of development (Porter, 1990). For prosperity to be reached and sustained, a nation must reach the innovation-driven stage of development (Davies and Ellis, 2000). This implies that comparative advantage in terms of factors is not sufficient for international success; a nation's industries must upgrade through innovation, product differentiation, branding and marketing. However, since Porter's model first appeared, a number of criticisms have also been voiced (see Davies and Ellis, 2000, for review). These authors argue that the suggestion in Porter's model that strong four diamonds at home are necessary conditions for a nation's competitiveness has major drawbacks. This argument was attacked as inappropriate at a time when the world economy has become increasingly globalised and TNCs¹ are becoming increasingly important. Dunning (1993) argues that during the 1990s 'an increasing proportion of the assets of firms in a particular country are either acquired from or are located in, another country'. This in turn questions the importance of strong four diamonds in the home base for the competitiveness of these firms. Porter's model is unable to explain the organisation structure of TNCs that locate their production processes in more than one country. Porter's model suggests that outward FDI² is a sign of competitive strength in a nation's industry, while inward FDI indicates that 'the process of competitive up-grading is not entirely healthy' (Davies and Ellis, 2000). Authors such as Lau (1994) argue that capital would flow to locations where it is highly productive, in which case inward FDI is a strength of competitiveness rather than a weakness. English success can largely be attributed to inward FDI (Lin and Song, 1997). England has also used its comparative advantage in labour-oriented sectors for development rather than pursuing the 'upgrading' strategy of Porter (Lin and Song, 1997).

Traditional trade models and Porter's competitive advantage model are insufficient on their own to explain fully the reasons for some of the complex patterns of trade observed in capital and goods, such as FDI and the growth of TNCs. The pursuit of a better explanation has led to another interesting model (better referred to as a paradigm) used in international business literature, referred to as Dunning's eclectic paradigm, to explain the location of FDI and TNCs.

Trading blocs and globalisation

Current patterns of world trade have been influenced by the existence of world (regional) trading blocs such as the EU, NAFTA and ASEAN. Some of these, particularly the EU, have been shown to have trade-creating and trade-diverting impacts (El Agra 2007) where it encourages intra-member trading but discourages trade with countries outside its boundaries. This is a characteristic of a customs union (having a common external tariff) but is less significant for other less restrictive trading blocs.

Trading blocs also link to the presence of TNCs that have headquarters in, for example, the United States or Japan. These corporations play a significant role in FDI flows with the largest 100 providing 33% of the world stock of FDI of \$2 trillion (early 1990s). They also can account for a significant proportion of international trade. For example, they made up over 75% of U.S. international trade by the end of the 1980s.

They have been a major force for world economic integration as they have opened facilities in a greater number of countries, often chasing lower costs of production. Hence, newly industrialising nations have been created as producers have manufacturing out of higher cost economies (these becoming more service orientated). This process can be seen within each trading bloc. Thus, production has moved from the United States to Mexico, from Western to Eastern Europe and from Japan to other countries in East Asia. This development has often occurred in waves, first from Japan to South Korea and Taiwan, then into Malaysia and Thailand and then into China and the Philippines.

As a consequence, more countries have been integrated into global systems of trade and international financial flows. The latter have also grown substantially and faster than trade itself. Its growth has been made possible by the policies of financial deregulation that have been adopted in many countries around the world. Its inception comes from the earlier period after the breakdown of the Bretton Woods system of fixed exchange rates. After the turbulence of the 1970s, the international economy has come to be characterised by deregulation, integration, structural and spatial changes and high capital mobility. There has also been the development of a more competitive finance industry that could be argued has led to excessive lending to the property industry. Overexposure has affected the stability of financial systems. This has been seen in Thailand in the Asian financial crisis where the stability of the banking sector was interlinked with lending to speculative real estate development. More recently, the exposure of a number of banks to real estate has been witnessed in different countries. The scale of these problems has led to a much more cautious lending environment and concerns about asset bases of financial institutions.

Increased capital mobility internationally has also affected asset prices globally and has strengthened the link between property and the macro-economy. Essentially, the volatility of the real estate sector has a larger impact on asset values, and since the financial sector can permit borrowing against such asset values, there are more significant impacts on consumption growth and GDP than there would have been without financial deregulation and ability for leverage.

Conclusions

This chapter has examined the different theories of international trade. Paradoxically, perhaps the increase in trade is often an increase within the trading blocs themselves rather than between them, and most trade of TNCs remains within their home trading blocs. However, dominating trade flows are flows of international finance. Consequent upon deregulation and deliberate policy by different governments, these financial flows make it harder for individual governments to ignore the globalised financial system of pursued policies that this system does not support. It is against this background that new financial products have been developed that aid investment in real estate assets across the globe.

Notes

- 1 A TNC is an enterprise that controls assets of other entities in economies other than its home economy, usually by owning a certain equity capital stake (usually at least 10% of ordinary shares). A foreign affiliate or direct investment enterprise is an enterprise in which a foreign direct investor, resident in another economy, owns a stake that permits a lasting interest in the management of that enterprise.
- 2 FDI is an investment involving a long-term relationship and lasting interest in, and control by, a resident entity in one economy in an enterprise resident in another economy. In FDI, the investor exerts significant influence on the management of the enterprise resident in the other economy. The ownership level required for a direct investment to exist is 10% of the voting shares (UNCTAD, 2004).

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