

Neither Free Trade Nor Protection

A Critical Political Economy of Trade Theory and Practice

Bill Dunn

Department of Political Economy, University of Sydney, Australia

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3. Free trade theory and its critics

INTRODUCTION

This chapter concentrates on pro-free trade arguments, particularly the theory of comparative advantage. The theory shows that countries can potentially gain from trade. In the simplest examples it demonstrates that both of two parties can benefit from trade even when one of them is absolutely more efficient at producing both of two goods. Much, much more is often claimed of the theory. A leading textbook informs its readers boldly: 'Free trade brings benefits to all nations. This theme forms the foundation for any basic discussion of international trade' (Caves et al. 1993: 199). However, as the chapter shows, the theory of comparative advantage is insufficient to support the weight it is asked to bear as either a description or a justification of real-world trade practices.

This chapter has six substantive sections. It first discusses Smith, who is usually seen as providing the basis of modern trade theory. It argues that Smith's work hardly justifies his appropriation by the modern pro-trade enthusiasts. As the section following on from it articulates, Ricardo is more clearly a proponent of free trade and the elegance of the theory of comparative advantage bears repetition. The subsequent four sections then critically evaluate the Ricardian foundations of pro-free trade theory. It is argued, respectively, that the theory ignores market imperfections, time, space and the role of money and credit. Each of these areas produces potentially fatal problems for the basic theory.

More intelligent economists recognize some of the problems and 'relax' the assumptions made in the most basic models. They would no doubt feel the objections in the second half of the chapter to be misplaced. However, the more sophisticated models are still typically presented as modifications of the original. It is hard to avoid thinking of Ptolemaic astronomy and epicycles, introducing an ever more convoluted intellectual architecture to avoid critical reflection on the underlying principles.

As the title and overall rationale of this book should make clear, the criticisms of pro-free trade arguments do not imply an embrace of protectionism, as is all too often implied. To suggest these are the only

alternatives is an intellectual sleight of hand, which, diverting attention to the follies of a largely imaginary opposition, prevents proper critical scrutiny of important but problematic ideas.

ADAM SMITH: THE MISUNDERSTOOD MERCANTILIST?

Smith is typically presented as the founder of 'modern' mainstream economics. Friedman proudly sported his Adam Smith Club tie. If people know one thing of Smith it is usually that he celebrated the 'invisible hand' of the free market. He was actually a much more complex thinker than this implies.

Smith was not primarily a trade theorist. This is evident from the ordering of the *Wealth of Nations* alone. Trade only makes its substantive appearance with the fourth of five 'books' (Smith 1999). However, it is reasonable to see what Smith says in support of trade as following from his starting point in the first book on labour as the source of value and the virtues of the division of labour (Smith 1997). Famously, Smith describes a pin factory and provides some (unlikely) numbers of the potential gains. He argues that splitting the process of making even such a simple commodity into its constituent parts greatly improves productivity. Each worker becomes a specialist in a particular trade, specialization involves saving time otherwise lost moving between different jobs, while machinery is more easily applied to more simple tasks. Smith acknowledges that such specialization could cause the workers intellectual damage but believes that in material terms the division of labour brings great benefits. The first chapter of the *Wealth of Nations* ends by celebrating the achievements of European civilization; so great that the wealth of a European prince might not exceed that of a frugal peasant by more than the same frugal peasant's income exceeded that of an African king.

When his writing turns to trade, Smith's position is qualified. He contrasts productive expenditure on 'additional stock of materials, tools, and provisions' with unproductive expenditure on 'foreign wines, foreign silks, &c.' (1997: 391). This brings him close to the ideas of industrial promotion of his mercantilist opponents. His criticisms of monopolies and the guild system and of the relation between town and country even anticipate elements of arguments of unequal exchange (Raffer 1987; Brolin 2006). Smith has been claimed as a supporter of extensive, not minimal, state intervention (Heilbroner 1997) and even characterized as a

'misunderstood mercantilist' (Reinert and Reinert 2005). It is at least clear that his support for trade was conditional.

Smith himself reserves a particular scorn for mercantilism but his reasons are revealing. He particularly mocks the association (which he finds in Locke and Mun) of wealth with gold and silver. He also opposes the mercantilist emphasis evidenced in the title of Mun's book *England's Treasure in Foreign Trade* (Smith 1999: 11):

The inland or home trade, the most important of all, the trade in which an equal capital affords the greatest revenue, and creates the greatest employment to the people of the country, was considered as subsidiary only to foreign trade. It neither brought money into the country, it was said, nor carried any out of it.

Smith regards the productive, commercial economies within countries, not trade between them, as the greatest source of the *Wealth of Nations*. Shortly after the above-quoted passage comes Smith's famous reference to the invisible hand. This too is worth quoting at length (Smith 1999: 32):

As every individual ... endeavours as much as he can both to employ his capital in the support of domestic industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention.

This famous defence of free markets and the gains attendant on selfish individualism expressly supposes a preference for domestic over foreign products. Only exceptionally do the gains from trade outweigh this natural prejudice.

When the gains from trade are sufficient, they should be encouraged and Smith argues that 'if a foreign country can supply us 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' (1999: 33). He mocks the idea of making wine in his homeland (1999: 35):

By means of glasses, hotbeds, and hot walls, very good grapes can be raised in Scotland, and very good wine too can be made of them at about thirty

times the expense for which at least equally good can be brought from foreign countries. Would it be a reasonable law to prohibit the importation of all foreign wines merely to encourage the making of claret and burgundy in Scotland?

This is the essence of what has been called 'absolute advantage', in which trade is based on each party sticking to what it does best. It is a fairly obvious idea but a powerful one. There are many goods that it would be difficult or impossible to produce domestically and which a country needs to import. The limits of the Scottish weather or of fossil fuel reserves under particular territories remain very real. Such strictly natural factors are, of course, exceptional and the recurring presence of wine and grain in the examples justifying trade becomes suspiciously unrepresentative.

Smith (1999) also allowed exceptions, where trade should be restricted. These included industries needed for national defence. Smith supported the Navigation Acts, allowed for retaliation against foreign protectionist policy and thought that where domestic industry was taxed, foreign imports should be taxed equivalently (1999: 41–3). He also maintained that capital needed to adjust gradually to new competition so, in rather sharp contrast to some precipitous recent restructuring, 'changes of this kind should never be introduced suddenly, but slowly, gradually and after a very long warning' (1999: 49). Smith is also sensitive to internal differences within countries and believes that complete freedom of trade is a utopian fantasy because 'the prejudices of the public, but what is much more unconquerable, the private interests of many individuals, irresistibly oppose it' (1999: 48).

The fifth and final book of the *Wealth of Nations* moves back from trade to the 'Sovereign or Commonwealth', including a discussion of how the state should develop the economy through public works and public institutions. Smith's support for trade, and even for free markets more generally, is therefore again qualified. It is also clear that Smith, like his mercantilist opponents, is explicitly suggesting strategies to enrich 'the Commonwealth'. For Smith this means Britain. He is writing at the very start of the Industrial Revolution but Britain already had something of an economic lead. It is therefore Britain's manufactures that could find an absolute advantage in international markets, while the costs of raw materials and food, and therefore wages, could be reduced by foreign imports. Smith also believes that workers are free to move and that they will tend to migrate to more developed countries (Darity and Davis 2005), to their own and those countries' advantage. There are thus many aspects to Smith's optimistic vision. He supports a freeing of

international trade but does not give it a particularly prominent place in augmenting the nation's wealth.

RICARDO AND COMPARATIVE ADVANTAGE

Ricardo's overall worldview was more pessimistic. Like Smith, he begins with labour but believes that wages, or the natural price of labour, provides only enough for subsistence and to perpetuate the labours' race (Ricardo 1951: 93). It is in Ricardo, not Marx, that we find something close to an 'iron law of wages'. Ricardo agreed with Malthus, his friend but otherwise often intellectual opponent, on the relentless pressures of demography. More optimistically, Ricardo accepts 'Say's Law', which predicts that markets will work, or 'clear', efficiently. The usual formulation is that supply creates its own demand. Among other things, this predicts full employment and this is important to the discussion of foreign trade and the theory of comparative advantage, which come immediately after the chapters on wages and profits.

The theory is rightly famous. The World Trade Organization (WTO) tells us that it 'is arguably the single most powerful insight into economics' (WTO 2014). The WTO highlights Samuelson's response to the challenge 'to "name me one proposition in all of the social sciences which is both true and non-trivial"' (WTO 2014):

Samuelson's answer? Comparative advantage.

That it is logically true need not be argued before a mathematician; that it is not trivial is attested by the thousands of important and intelligent men who have never been able to grasp the doctrine for themselves or to believe it after it was explained to them.

The theory argues that it is in countries' interest to specialize even when they have only a relative or comparative advantage, not simply when they have an 'absolute advantage', as in Smith. Countries do not necessarily have to be more efficient than their trading partner in one line of business and less efficient in another. It also pays to specialize and trade where countries enjoy only relatively greater efficiency, where there are varied differences between lines of business across countries, even where one country is absolutely more efficient than the other. As Samuelson's comment suggests, this is much less obvious.

It is worth re-stating Ricardo's own example, which is couched in terms of respective quantities of work. Ricardo compares cloth and wine production in Portugal and England, making the assumption that Portugal

can produce both commodities with less work than can England. Ricardo articulates a labour theory of value, so prices simply reflect amounts of work. The example also ignores (or abstracts from) any capital expenditures. Therefore, if England produces a certain amount of wine with the labour of 120 people and a certain amount of cloth with the labour of 100, while Portugal can make the same quantities with the work of just 80 and 90 people, respectively, the relative difference is much greater in wine than in cloth. It will pay both countries to specialize accordingly (Ricardo 1951). Table 3.1 provides a summary.

Table 3.1 Ricardian comparative advantage

	Wine	Cloth	Total
Before trade and specialization, total work			
England	120	100	220
Portugal	80	90	170
With trade and specialization, total work			
England		2×100	200
Portugal	2×80		160

Each country saves on its total labour and, overall, less work produces the same total amount of wine and cloth. The assumption of full employment allows that this labour is freed to produce more wine or cloth or any other useful good. The argument simply requires two sets of relative differences, between countries and between the productivities of different industries.

The theory is sometimes usefully illustrated with homely or non-economic examples. Krugman and Obstfeld (2003) describe Babe Ruth's rational decision to concentrate on slugging rather than pitching a baseball, despite being one of the best pitchers in the league. Conversely, if, as John Lennon said, Ringo Starr was not even the best drummer in the Beatles, we are nevertheless invited to assume that the relative difference in their guitar playing was greater and that the band's familiar line-up made sense.

Modern trade theorists abandon the labour theory of value for a cost-of-production approach, with actual costs weighed against 'opportunity costs'. Also usually eschewing the wine for a more austere acceptable 'corn' or 'food', the argument can be couched in terms of 'production possibility frontiers', and represented graphically. So any

country can devote its resources to the production of 'corn' or 'cloth' or to some combination of the two, as in Figure 3.1(a). It is possible to produce combinations of corn and cloth inefficiently, to the 'left' or 'below' the curve of Figure 3.1(a) but it is impossible to produce more, to produce in combinations to the 'right' or 'above' the curve. The maths is simplified if the line, which in the jargon continues to be called a 'curve', is instead drawn straight as in Figure 3.1(b). Then all that is needed to make the argument is a second line with a different slope, representing the production possibility frontier of a second country, as in Figure 3.1(c). The first country is relatively more efficient at cloth production, the second at corn. The first can sell the newcomer some cloth to get more corn than it could have made, and vice versa. Some territory to the right of both countries' curves is filled, marked as 'A' and 'B' in Figure 3.1(c). For both countries, the production possibility frontier is extended.

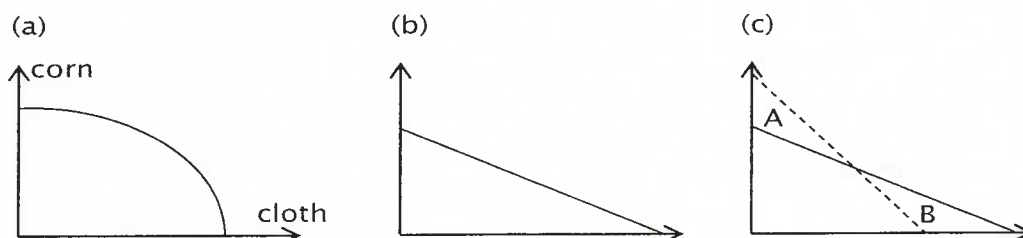


Figure 3.1 Comparative advantage, graphical representation of two countries – two commodities production possibility frontiers

This example assumes countries of similar total output (the area under the original curves is the same). However, the argument only relies on the slope of the lines. Clearly, a smaller country could supply only a part of the output of a larger one. Jamaica can supply only a part of the United States' agricultural demand, but it still makes sense both for the US to buy some food cheaper than it could grow it and for Jamaicans to buy some US-made cars rather than trying to establish their own industry.

The extension of the argument to a world with many countries and many commodities complicates the mathematics but the same principles apply, at least as long as there are as many commodities as countries.

An example with two countries but several multiple commodities allows a simple presentation in monetary terms. In the spirit of *comparative* rather than absolute advantage, Table 3.2 assumes that the home country is never absolutely more efficient but that the ratios of productivity in six industries vary from 1 through to 2 in regular, 0.2, increments. The implication of this is that the home country is poorer and workers are lower-paid (Krugman and Obstfeld 2003). If wages are

Table 3.2 *Comparative advantage with two countries and many commodities*

Commodity	Home			Abroad		
	Work	Quantity produced	Cost/Price per unit	Work	Quantity produced	Cost/Price per unit
Before specialization, work, production and price						
A	2.0	1	1.33	1.5	1.5	1.0
B	1.8	1	1.20	1.5	1.5	1.0
C	1.6	1	1.07	1.5	1.5	1.0
D	1.4	1	0.93	1.5	1.5	1.0
E	1.2	1	0.80	1.5	1.5	1.0
F	1.0	1	0.67	1.5	1.5	1.0
Total	9	6		9	9	
After specialization, work, production and price						
A				2.77	2.77	1.0
B				2.77	2.77	1.0
C				2.77	2.77	1.0
D	2.91	2.08	0.93	0.69	0.69	1.0
E	3.32	2.77	0.80			
F	2.77	2.77	0.67			
Total	9	7.62		9	9	

two-thirds the level in the foreign country, the prices of the goods can be expressed in relative money terms. By assumption, each country consumes an equal mix of products, so before trade and specialization they would also produce the quantities shown. This implies that the home country would devote unequal amounts of work to each activity. The numbers suggest that the home country, although still less efficient in terms of work required, has a comparative advantage in products D, E and F, the foreign country in A, B and C. Different scenarios are possible in terms of just how the work of producing goods at the margin might be distributed. The foreign country has the larger economy because of its greater efficiency so here it retains some production of good 'D' where it appears not to have a comparative advantage. The home country is not of sufficient size to produce everything in D, E and F for both countries, if

consumption is to continue in the same ratios. The price would presumably settle somewhere between 0.93 and 1.0. The example nevertheless again shows more of each commodity in the world than before specialization and that each country can gain from trade. In this (optimistic) scenario, the home country has increased its output by 27 per cent.

The elegant simplicity of comparative advantage has surely contributed to its enduring appeal. It is, of course, a highly abstract model. This is not necessarily a problem. Theory requires abstraction and is always imperfect. However, there are many reasons to believe things may not work so neatly in practice. Frank claims to have 'identified over thirty underlying assumptions each of which is historically and empirically unfounded and several of which are mutually contradictory' (1978: 94). He does not condescend to detail these. However, Dunkley (2004) provides a 15-point list and Sheppard (2005) one of seven 'hard core' assumptions. These points are telling enough and are incorporated into the first three thematic discussions that follow, on market imperfections, time and space. The fourth section discusses money and credit. For all its elegant simplicity, there are serious limitations to comparative advantage, requiring careful thought about the assumptions being made and the purposes to which it is put.

MARKET IMPERFECTIONS AND REAL COMPETITION

The idea of market imperfections is very general and encompasses the themes of time, space and money discussed below. This section identifies several specific areas where markets are imperfect. The absence of small-country terms of trade, full employment, utility maximizing consumers with uniform preferences and market efficiency all potentially undermine the optimistic picture of mutual gains.

The theory of comparative advantage is perhaps the most important insight of what is usually termed 'classical political economy' incorporated into the 'neo-classical' tradition that developed from the 1870s and became modern mainstream economics. Keynes (1973) dubs both Ricardo and the later writers 'classical' precisely for their shared assumptions of market efficiency. It becomes particularly important for the neo-classical models to assume perfect competition. The relevant agents are all rational, self-interested individuals, they are fully informed and none of them has an influence over the total market, which is assumed to operate independently of state or societal influences (Sheppard 2005). Firms are assumed to freely enter markets. There are no profits. There is no power and no possibility of losers in a free market. With more or less

reflection, this is carried over into trade theory. Friedman (1962) points out that competition, as the word is understood in plain English, means almost the opposite of what economists take it to mean in terms of a bloodless adjustment of prices. The plain language is often closer to the political economic reality, which can be an inelegant affair involving state and corporate power where there is no guarantee that the most 'efficient' in terms of work or price will prevail. There is no guarantee that saving labour and reducing costs will not translate, among other things, into higher unemployment and reduced levels of economic activity. Moreover, there are many reasons to assume that the smaller and weaker will be disadvantaged.

The heroic leap from individuals to countries as the unit of analysis requires, among other things, 'small-country terms of trade'. Just as any individual is assumed to lack market power, the output or purchases of any one country should not influence the overall price. In the jargon, each producer is a price 'taker'. In practice, the exports and imports of large countries often represent a huge proportion of global trade for particular commodities. In recent years, China's exports have clearly affected world prices and undercut those of many competitors. Large countries are typically better able to support 'their' firms, while smaller countries are more likely not only to be price takers but to become completely specialized and thence more vulnerable to market distortions or simply to market volatility. Countries cooperate and international cartels can fix prices. The oil-exporting countries' organization, OPEC, is the most well known of these cartels. Large corporations can also have a considerable degree of monopoly or monopsony power. New technology firms like Microsoft and Apple, but also industrial giants like Boeing and Airbus and retailers like Walmart, stand out. Their power to manipulate markets is sometimes exaggerated but few people would imagine that commodities like oil, aircraft or computer software are bought or sold in perfectly competitive markets. Even if we ignore overt forms of power and coercion and assume that countries do freely choose to trade and expect some benefit, all this means that any gains might be shared very unevenly.

Unequal class relations involve particularly egregious market imperfections and (perhaps for that reason) seem to remain off-limits for respectable trade theory. International competitiveness might be established precisely by cutting wages or driving workers harder through extra economic coercion rather than by efficiency. But there is a more general sense in which economic relations are inherently coercive. In a society in which workers need employment to provide for their most basic needs, the idea of 'free' labour markets is always misleading. A key aspect of

this, which strikes most modern readers of Ricardo, is the reality of unemployment, not as an aberration or temporary fluctuation, but as an ongoing structural feature of almost all national economies. Ricardo's original formulation of comparative advantage envisaged equal levels of production being achieved by a reduction of work. The potential for any such efficiency gains to simply allow firms to reduce employment is all too real. This might be dysfunctional from the perspective not only of the workers themselves but also of national economies whose output suffers. It can, however, be very useful to firms as a means of maintaining labour discipline and keeping wages low. As Bowles and Boyer (1990) argue, in labour markets, quite contrary to orthodox economists' assumptions, capitalism works only when markets fail to clear. Were there no threat of unemployment, workers could bid up wages, would feel less constrained to work hard and profits would evaporate. The implications for labour of trade are complex, as will be discussed in Chapter 8, but there is already a sense in which efficiency is accrued at workers' expense.

If we do assume full employment and that specialization creates more output rather than less work, another, equally dubious, assumption is required to ensure that all the extra goods produced will be consumed. What Dunkley (2004) calls the assumption of the 'good consumer' requires that, just as much as firms strive to maximize their output, people simply want to maximize their input. At the very least, this consumption maximization requires an implausibly neat symmetry between the increases in wealth of the importing countries and the increasing supply of producers. It seems quite possible to imagine, for example, the Portuguese still finding uses for English cloth long after the English were thoroughly satiated on Portuguese wine. Even orthodox assumptions of a declining marginal propensity to consume identify different slopes to the demand curves for different goods (Jevons 1965), which then come into tension with assumptions of smooth adjustments to equilibrium if countries are also specialized in particular lines of industry.

The theory of comparative advantage requires that consumer preferences are the same across countries. If tastes differ, different demand structures produce higher relative prices for particular commodities in one country than another. This in turn implies that the country that is the more efficient producer might still end up importing (Caves et al. 1993). Tastes do vary, for all sorts of social and psychological reasons, but – most fundamentally for a narrowly economic analysis – they vary because consumption patterns change with income. Changes in wealth alter the demand structure, the relative consumption of wine and cloth

and machinery. This eats away the foundations of the theory of comparative advantage, which precisely assumes that countries will have different income levels.

Finally in this section, it is pertinent to note that the existence of externalities makes assumptions of market efficiency unsustainable. Mainstream economics acknowledges that 'externalities' exist whenever goods and bads are hard to keep within private enterprise. Some externalities might be positive, involving industry innovation. In that case, one firm's activities generate unpaid-for benefits for other firms. This again produces reasons why large countries, which remain diversified, might do better than smaller ones that become completely specialized. There are also important negative externalities worth mentioning in this context, particularly those concerned with environmental degradation (Dunkley 2004). In this case, the production or consumption of any one economic player has negative 'spillovers' adversely affecting the well-being of others. In practice, trade often involves situations, in which countries, or the firms within them, specialize not because they are more efficient but because of essentially political decisions, different legislations, such as laws rejecting certain technologies, perhaps because they damage the environment or the workforce. For example, US semiconductor firms moved offshore at least in part because of lower environmental standards. Countries might find their comparative advantage in exhaustible resources, in draining their oil or logging their rainforests. In the words of US Treasury Secretary Summers, 'the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable' (cited in Kovel 2002: 76).

There are many other possible market imperfections. It is also worth noting that the focus on efficiency excludes all sorts of 'non-economic' but important social processes from the theory. The market is itself an imperfect mechanism for realizing all sorts of social objectives. For example, more rewarding but less efficient work, achieved through a less thorough division of labour, or because of a preference for locally made products are simply not entertained.

STATIC AND DYNAMIC GAINS (OR LOSSES) FROM TRADE

The theory of comparative advantage is essentially static, depending on one-off gains from specialization. Dynamic changes, some of which can themselves be fostered by trade, can have much greater effects in practice. These too might bring substantial benefits and enhance the case

for trade openness. However, some of the dynamic effects potentially undermine any static gains and therefore render the argument for comparative advantage more fraught.

Most estimates reckon the likely gains from comparative advantage as small. For example, the estimated 'dead weight' losses from having trade restricting tariffs 'rarely exceed 2 or 3 percentage points' (Deraniyagala and Fine 2001: 810). Gains of such magnitude are worth having, no doubt, but might temper some of the bolder enthusiasm noted above of this being the most powerful insight economics has to offer. It is also worth emphasizing that because it is the one-off act of specialization that produces the gains, the theory of comparative advantage cannot support a presumption that open economies (countries that retain a given level of trade) should then grow more quickly than closed economies. To justify such bolder prognoses, free trade supporters would have to look elsewhere.

Claims of even one-off gains become potentially complicated if there is the possibility of economies (or diseconomies) of scale. In the jargon, the theory relies on constant technology and unchanging production functions. Ricardo's examples assume that output is doubled by doubling the amount of work. This, of course, is unrealistic. Darity and Davis (2005) suggest that already in Smith's analysis, it was recognized that the differences between agriculture and industry meant that an increased international division of labour implied widening inequality (see also Ros 1987). There will often be economies of scale, so that doubling the inputs into production would result in more than twice as much being produced. More likely, the same English cloth factory might run a second shift, for example, rather than needing to double in size. There might also be 'external' economies of scale, with spillover effects between firms, perhaps through the development of a larger pool of skilled workers, supplier industries or the use of common infrastructure. In Portuguese viticulture, as in agriculture more generally, there seems more likely to be diseconomies of scale. This was important in Ricardo's (1951) descriptions of declining marginal utility, although it does not feature in his account of trade. The best grape-growing slopes are already cultivated and more production will push the winemakers onto poorer land, probably also further from their vats. Who gains from these changes is not clear. It is the English who economize most on work, while the Portuguese savings now look less secure. But (with a Ricardian labour theory of value) this might alternatively mean that the relative price of English products comes down, to the advantage of the Portuguese. We would need to know something more about money and exchange rates to

know who benefits most, and even to be sure that both parties will actually gain.

This can be seen in 'Graham's paradox', established for over 90 years but usually hidden from students of economics. Graham (1923) and Viner (1965) use a simple example of wheat and watch production but the point can be made by sticking with the familiar wine and cloth. For the sake of a simple numerical example, a 'unit' of each commodity is taken to be produced in the specified number of day's work and each country to have a supply of one million days labour: see Table 3.3. Therefore, before trade, we have Ricardo's case, with Portugal producing considerably more than England. If the respective price of the goods lies somewhere between 120/100 and 80/90, both countries will gain from trade. For simplicity, assume the prices are equal: one unit of wine is traded for one unit of cloth. At such a price it would pay both countries to trade. They therefore begin to specialize. If there are even modest diseconomies of scale in wine production, the English, by producing less wine, produce it more efficiently in terms of cost per unit produced. The Portuguese, producing more, do so less efficiently on average. Conversely, economies of scale in cloth production mean more production in England and less in Portugal. A situation of partial specialization with such changes is shown in Case II (Table 3.3). The pattern of comparative advantage is as before. The range of prices at which it would pay both parties to trade has narrowed somewhat but 1:1 still pays. Therefore, trade is still likely. Now assume England exports 2500 units of cloth and imports 2500 units of wine. England can now consume 4773 units of wine and 5394 of cloth, Portugal 5833 and 5133, respectively. In these examples England's 'GDP' has grown from 9167 to 10,168 and Portugal's contracted from 11,806 to 10,965.

Viner (1965) takes the case to near-complete specialization and the situation then becomes starker. (As below, once specialization is complete it becomes impossible to make assumptions about relative prices, which creates problems of its own for comparative advantage.) The point is nevertheless already clear at this situation of partial specialization at which Graham (1923) leaves it. Dismissing the likelihood of economies of scale, Viner goes on to reject the thesis as 'little more than a theoretical curiosity' (1965: 481). Here it has largely remained as a 'paradox', apparently absurd in confounding the expectation of mutual gains. Of the few subsequent references to Graham, a large proportion have come from proponents of New Trade Theory, discussed in the next chapter, who, since the 1980s have recognized the importance of scale economies. But the story of mutual gains has long been undermined.

Table 3.3 *Graham's paradox*

	England			Portugal		
	Days' work	Output per day	Output	Days' work	Output per day	Output
Case I: before specialization						
Wine	500000	1/120	4167	500000	1/80	6250
Cloth	500000	1/100	<u>5000</u>	500000	1/90	<u>5556</u>
Consumption			9167			11806
Case II; with partial specialization						
Wine	250000	1/110	2273	750000	1/90	8333
Cloth	750000	1/95	7895	250000	1/95	2632
Consumption after trade						
Wine		$2273 + 2500 =$	4773		$8333 - 2500 =$	5833
Cloth		$7895 - 2500 =$	<u>5395</u>		$2632 + 2500 =$	<u>5132</u>
			10168			10965

The static character of the theory of comparative advantage also discounts learning effects and technological innovation. That trade can foster such processes can be interpreted as a strong argument in its favour. For example, imports from more developed countries can provide a source of technological innovation in poorer ones (Yanikkaya 2003). The history discussed in the previous chapter identified how trade could be crucial to technological diffusion and growth. However, this immediately qualifies the story of advantages gained through specialization and introduces a series of potential problems for the theory.

First, it is quite plausible that the English winemakers will be forced to 'shape up' by their Portuguese counterparts and learn better ways of production from them. It is less obvious how, having followed the prescriptions and specialized, English cloth makers will learn from foreign winemakers. Competition drives specialization, but the process of specialization undermines competition. In the examples above, price competition between countries produces a more efficient overall division of labour but, once countries have specialized, there is little or no competition.

Second, if technological innovation becomes a key variable, there may be strong grounds for protection and state support for national systems of innovation. What is internationally inefficient at one time might be

improved upon (Dunkley 2004). Historically, England was not always a cloth maker and if it had just specialized in those activities it conducted at some earlier time it would never have become one. The US too, was an agricultural exporting country until late in the nineteenth century. The more general point is that static models cannot capture how differences at any one time, which determine a country's specialisms, might cease to be valid if specialization were delayed. At the very least, dynamic changes imply that countries overcome any momentary comparative disadvantage.

Third, changing productivity within countries (as in Graham's paradox but for whatever reason it occurs) will change the likely pattern of winners and losers. There is a range of possibilities depending, for example, on where the gains are achieved within national economies and what effect this has on exchange rates. Hicks (1953) suggests that uniform increases in productivity in country A mean that its greater wealth increases the demand for country B's products, so even as international inequality increases, some part of the improvement with 'slop over to B' (1953: 124). However, the picture is different if productivity improvements are uneven. Innovation in A's export sectors cheapen its products, to B's further advantage, while innovation in non-export sectors which compete with imports from B, work to B's disadvantage.

Recalling the market imperfections discussed above, one further relevant aspect of dynamic change is how comparative advantage assumes that capital moves costlessly and instantly from one activity to another. In practice, of course, there are inevitably adjustment costs associated with specialization: ripping up the vineyards, demolishing the unwanted factories and then establishing them elsewhere. Smith thought any changes should be implemented gradually, particularly because of the difficulties of changing business for 'the undertaker of a great manufacture' (1999: 49). Even orthodox economic accounts admit that the costs of reallocating resources should be subtracted from any gains from trade (Caves et al. 1993). Implicitly, at least, comparative advantage requires a constant re-switching. So, for example, Portugal's winemakers might face renewed competition from one sort of grape and one sort of wine to another, so their vineyards also now have to be uprooted. As productivity and wage rates elsewhere change, any country's 'correct' production and market niche alters. The banana plantations become uncompetitive, as many Caribbean Islands found to their cost. Theory tells us that there is something else to do with a country's resources, but it is seldom obvious just what.

In short, trade takes place in a dynamic and changing world while the theory of comparative advantage is static. The conventional theory's

ability to capture the impact of changes or to guide policy becomes profoundly questionable.

SPACE, DISTANCE AND NATIONAL POLITICAL ECONOMY

Just as the theory of comparative advantage is atemporal, so it is also aspatial. 'Transport costs are either ignored, or treated as an exogenously given barrier to trade; space is Newtonian rather than a social construct' (Sheppard 2005: 155). In reality, geography impinges on trade relations in important ways. Even in the nineteenth century, the Atlantic voyages required to transport Ricardo's two commodities were hardly trivial. Despite much hyperbole over the 'death of distance' and deterritorialization in the recent literature on globalization, there is little evidence that the work or costs involved in moving most goods and services diminish to zero. This is essentially a practical, empirical matter, which supporters of trade would acknowledge needs to be weighed against the gains. However, it means that 'access to markets' will have semi-natural elements, which might disadvantage certain countries, such as inland Africa and Asia (Smith 1997; Darity and Davis 2005). Place matters, so that trade is likely to look different for different countries, for Austria and Vanuatu. Transport and communication efficiencies vary between activities and can often be changed by policy.

Once we enter the real world of international relations, as the perspectives discussed in the next chapter emphasize, there are many reasons to question ideas of voluntary, 'arm's-length' trade between nations. There are many cases of direct or indirect coercion. The restructuring of indebted countries in the 1980s is discussed in Chapter 10. As discussed above, economic competition itself coerces. Building a war chest of foreign currency reserves against potential free-market speculation can impose a similar logic to that of International Monetary Fund (IMF)-sponsored structural adjustment. It induces countries to trade, but to export more than they import, and as such defies ideas of trade as a voluntary, barter-like exchange.

National borders continue to matter but these are social constructions, not the neat containers of economic activity that much of economic theory takes them to be. Ricardo (1951) not only posits the ease of capital relocation within countries but also contrasts this with the difficulties of moving across national borders. There are necessary assumptions. Were capital (and land and labour) within a country not 'given' it would become impossible to talk of choices between different

uses, and the supersession of one line of business by another more in line with the country's comparative advantage. An open global economy makes these assumptions all the harder to sustain as workers migrate in their millions and capital flows accelerate, but they have always been problematic. Portugal did specialize, but the English bought the Portuguese vineyards (Frank 1978). Meanwhile, the textbooks can slide effortlessly from acknowledging capital movements to telling us that they too 'lead to gains from trade that can make consumers everywhere better off' (Krugman and Obstfeld 2003: 637). The claims of gains from trade are now extended to capital mobility even as that capital mobility pulls the conceptual rug from the claims of gains from trade. Frank's dependency views see capital export as part of a process through which the core exploits the periphery but they also imply that any gains might be sent away from rich countries.

There are epistemological problems in assuming that the logic of mutual gains achieved by self-interested individuals through acts of truck, barter and exchange apply equally to nation states in the global economy. It is reasonable to assume that, if it were a free decision, individuals would not trade unless they perceived some benefit in doing so. Unfortunately, nation states are not like individuals, neither having interests nor being capable of making rational decisions on the same bases. States simply do not possess utilities in the same sense that neo-classical economics maintains they are held by individuals; states do not experience pleasure and pain. A series of more or less plausible conceptual leaps are required to assume that additions of material or monetary wealth amount to the same thing and to justify extrapolating the presuppositions of an individualist economic orthodoxy. Of course, states are not unitary actors and it is seldom states themselves that engage in trade. Particular government bureaus or departments might perhaps do so but it is more likely to be firms that trade; firms whose attachment to the national interest is likely to be at best conditional.

The theory of comparative advantage assumes 'lump sum' compensation, an implausible national unity that depicts countries as homogeneous entities (Dunkley 2004). In a sense this is just another instance of market imperfections and is exemplified by the discussion of unemployment above. Firms and individuals may save rather than spend their income or send it overseas. Once we recognize that countries are internally divided, even if we posit net national gains, there is no reason to assume that everybody benefits. As will be discussed, particularly in Chapter 8, mainstream trade theorists since Stolper and Samuelson (1941) acknowledge this. It has, to say the least, interesting implications for the 'liberal' arguments. There are many possible scenarios in which

trade, even where it involves net national gains, might be against the interests of the majority of the people. Meanwhile, as above, within countries, capital is heterogeneous and there are many obstacles to its movement. There are costs and time lags associated with switching production from one industry to another. Conversely, there are likely to be spatial and thence national interdependencies between economic sectors (Sheppard 2005). Ripping out one sector because it does not fit the country's static comparative advantage might also have negative spillover effects.

THE ECONOMY IS INESCAPABLY MONETARY

Several aspects of a monetary economy undermine the assumptions of comparative advantage. The textbook models begin with trade as a barter-like process (see, for example, Caves et al. 1993). For the purported mutual benefits to be achieved in practice requires some big assumptions about money and finance in the international economy (Shaikh 1979). The possibilities of saving, or having a 'liquidity preference' rather than immediately reinvesting, or of sending money across national borders have been mentioned above. Baiman (2010: 433) argues that, with some plausible assumptions about consumer preferences, 'Ricardo's story is mathematically overdetermined' and the mutually beneficial free-trade equilibrium disappears. Two further points will be made here, both reiterating the importance of time.

First, Shaikh considers the role of debt and debt repayment, illustrating this in a situation where the international economy uses commodity money, as it did with the gold standard. It would be quite consistent with Ricardo's labour theory of value to posit an equal quantity of gold as the product of an equal quantity of work. Shaikh (1980) then adds to Ricardo's familiar pre-specialization depiction of England and Portugal some prices of their products. This now implies that Portugal's absolute advantage in both lines of business means that initially its products are cheaper and it outsells its English competitors and successfully exports both its products to England. Initially, England can sell nothing in Portugal and it runs a trade deficit, which is to say that money (gold) flows in the opposite direction.

For Ricardo, as for subsequent quantity theories of money, this brings about a fall in the prices in England until at some point the relatively cheaper cloth is sold into Portuguese markets and the happy patterns of specialization are established. It is likely that the flow of gold will change prices in the direction suggested. But this is not all that happens.

Shaikh (1980) suggests (following Marx) that the outflow of gold from England will also determine the supply of loanable capital within England, tending to raise interest rates. This will be partially offset by the diminished scale of cloth and wine production, which decreases the borrowing demand, but this will only be partial as long as there is some bias toward local production. The increased borrowing costs will constrain investment and production of other commodities. In net, 'the drain of bullion will lead to lower bank reserves, curtailed production, and a higher rate of interest' (Shaikh 1980: 38). Portugal experiences the opposite effect. The low rates of interest and excess of loanable capital boost local production. They also make lending to England attractive. In doing so, the balances seem to be restored but the money is lent, at interest, and so eventually returns, in greater quantity, to Portugal. The trade imbalance is maintained by the persistent flow of gold in the opposite direction.

If we have commodity money this cannot continue indefinitely. Even with fiat money there is likely to be a less well-defined limit determined by the confidence of currency and bondholders. There must eventually be a collapse in the value of the English currency. Again, conventional theory would see this restoring trade balances as currency depreciation restores English competitiveness. However, it also means England can afford less because it has become poorer and therefore there is also a fall in the level of trade (Shaikh 1980). Portugal gains while England loses. As a consequence, Shaikh insists (1979: 301): 'It is *absolute* advantage, not comparative, which rules trade.'

Incorporating money and foreign exchange rates with a sensitivity to time discussed above introduces a further series of complications. Falling foreign exchange values are expected to improve export competitiveness, limit imports and improve the trade balance. But this does not happen immediately. The textbooks acknowledge 'J-curve' effects, involving a mild dip before the improvement. In the short term, falling currency values mean that the terms of trade fall. Supply and demand do not adjust instantaneously, so exports earn less and imports become more expensive. The balance of trade deteriorates. Only after an indeterminate period are producers able to respond, to utilize their new competitiveness. Similarly, the downward pressure on demand and imports will vary, consumption of essential food supplies and industrial inputs falling only over time.

Three things stand out from this. First, the timing is uncertain. As seen in the early 2000s, the US dollar and the US trade balance could fall together for many years. Second, there is little theoretical reason to expect the total 'recovery' to be greater than the initial fall. Much will

hang on elasticities of supply and demand of the particular commodities. It may not be the case that there is a sufficient increase in demand, say for the now cheaper potatoes, to outweigh the lower price per sack. Nor might producers be able to increase supply to match any extra demand. Third, even if the recovery is rapid and export performance improves, this is based on falling terms of trade and at least some degree of national impoverishment. This, of course, has been one of the criticisms of IMF structural adjustment policies; that trade and trade surpluses allowed creditors to be repaid but did little for national development. A reciprocal set of observations might be made about currency revaluation and improving terms of trade. There seem likely to be winners and losers within countries but the net effects on national income are hard to anticipate.

CONCLUSION

Comparative advantage is a powerful theory, which has occupied a central place in economic thinking. It provides reasons to expect mutual gains from trade, even in situations where it might seem counter-intuitive. The less efficient can have something to offer to the more efficient and the more efficient something to gain by trading with the less efficient.

However, there are many problems with the theory. It assumes perfect competition based on the action of rational individuals and is ill-equipped to deal with the realities of national, corporate and class power. It is static, predicting one-off gains but saying nothing about dynamic effects, which for good or ill, might be more important. It is aspatial, ignoring the complexities of geography, national boundaries and national interests, while the picture of mutual gains can also be questioned once attention is given to the operation of the monetary economy.

Mainstream trade theorists acknowledge many of these points and the next chapter looks in more detail at several perspectives that incorporate the reality of imperfect markets. Some of the problems have been acknowledged more cursorily, or dismissed as minor quibbles and curios (Sheppard 2005). The problem, however, remains that even where there is a relatively thorough acknowledgement and engagement with the challenges, these are typically seen as requiring minor adjustments to comparative advantage, as involving exceptions rather than invalidating the general claims. However, 'we cannot dismiss the proposition that some of these assumptions are "critical", in the sense that current theoretical deductions no longer hold once those assumptions are modified' (Sheppard 2005: 155).

Once again, questioning the dominant theory does not imply a rejection of trade. Nor does it mean abandoning attempts to understand it. Back in 1963 Balogh wrote (cited in Raffer 1987: 276):

On the contrary: the failure of empty generalities, the exposure of the grand abstract designs and diagrams as signifying nothing, depicting non-existent relations; the recognition of the historical uniqueness of macro-economic problems, all this increases the need for careful and detailed economic analysis, for the painstaking investigation of each case and its peculiarities.

There are alternative ways of looking at trade.