



Text No. 2: Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Edited by R.H. Campbell and A.S. Skinner, Oxford, 1976, 456–457.

SYSTEMS OF POLITICAL ECONOMY

(...) It is the maxim of a every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The taylor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to [183] make his own cloaths, but employs a tailor. The farmer attempts to make neither the one nor the other, but employs those different artificers. All of them find it for their interest to employ their whole industry in a way in which they have some advantage over their neighbours, and to purchase with a part of its produce, or what is the same thing, with the price of a part of it, whatever else they have occasion for.

What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. 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. The general industry of the country, being always in proportion to the capital which employs it, will not thereby be diminished, no more than that of the above-mentioned artificers; but only left to find out the way in which it can be employed with the greatest advantage. It is certainly not employed to the greatest advantage, when it is thus directed towards an object which it can buy cheaper than it can make.

Text No. 3: David Ricardo, *The Principles of Political Economy and Taxation*, 1871, reprinted by J.M. Dent, London/Rutland 1973, 81-83

CHAPTER VII: ON FOREIGN TRADE

(...) The same rule which regulates the relative value of commodities in one country, does not regulate the relative value of the commodities exchanged between two or more countries.

Under a system of perfectly free commerce, each country naturally devotes its capital and labour to such employments as are most beneficial to each. This pursuit of individual advantage is admirably connected with the universal good of the whole. By stimulating industry, by regarding ingenuity, and by using most efficaciously the peculiar powers bestowed by nature, it distributes labour most effectively and most economically... while, by increasing the general mass of productions, it diffuses general benefit, and binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilized world. It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England.

In one and the same country, profits are, generally speaking, always on the same level; or differ only as the employment of capital may be more or less secure and agreeable. It is not so between different countries. If the profits of capital employed in Yorkshire, should exceed those of capital employed in London, capital would speedily move from

London to Yorkshire, and an equality of profits would be effected; but if in consequence of the diminished rate of production in the lands of England, from the increase of capital and population, wages should rise, and profits fall, it would not follow that capital and population would necessarily move from England to Holland, or Spain, or Russia, where profits might be higher.

If Portugal had no commercial connexion with other countries, instead of employing a great part of her capital and industry in the production of wines, with which she purchases for her own use the cloth and hardware of other countries, she would be obliged to devote a part of that capital to the manufacture of those commodities, which she would thus obtain probably inferior in quality as well as quantity.

The quantity of wine which she shall give in exchange for the cloth of England, is not determined by the respective quantities of labour devoted to the production of each, as it would be, if both commodities were manufactured in England, or both in Portugal.

England may be so circumstanced, that to produce the cloth may require the labour of 100 men for one year; and if she attempted to make the wine, it might require the labour of 120 men for the same time. England would therefore find it her interest to import wine, and to purchase it by the exportation of cloth.

To produce the wine in Portugal, might require only the labour of 80 men for one year, and to produce the cloth in the same country, might require the labour of 90 men for the same time. It would therefore be advantageous for her to export wine in exchange for cloth. This exchange might even take place, notwithstanding that the commodity imported by Portugal could be produced there with less labour than in England. Though she could make the cloth with the labour of 90 men, she would import it from a country where it required the labour of 100 men to produce it, because it would be advantageous to her rather to employ her capital in the production of wine, for which she would obtain more cloth from England, than she could produce by diverting a portion of her capital from the cultivation of vines to the manufacture of cloth.

Thus England would give the produce of the labour of 100 men, for the produce of the labour of 80. Such an exchange could not take place between the individuals of the same country. The labour of 100 Englishmen cannot be given for that of 80 Englishmen, but the produce of the labour of 100 Englishmen may be given for the produce of the labour of 80 Portuguese, 60 Russians, or 120 East Indians. The difference in this respect, between a single country and many, is easily accounted for, by considering the difficulty with which capital moves from one country to another, to seek a more profitable employment, and the activity with which it invariably passes from one province to another in the same country.

[In a footnote set here, RICARDO stated that:] It will appear then, that a country possessing very considerable advantages in machinery and skill, and which may therefore be enabled to manufacture commodities with much less labour than her neighbours, may, in return for such commodities, import a portion of the corn required for its consumption, even if its land were more fertile, and corn could be grown with less labour than in the country from which it was imported. Two men can both make shoes and hats, and one is superior to the other in both employments; but in making hats, he can only exceed his competitor by one-fifth or 20 per cent, and in making shoes he can excel him by one-third or 33 per cent; – will it not be for the interest of both, that the superior man should employ himself exclusively in making shoes, and the inferior man in making hats?

Text No. 4 **Alan O. Sykes**, *Comparative Advantage and the Normative Economics of International Trade Policy*, in: *Journal of International Economic Law*, Vol. 1, 1998, 49-53

1. THE ENGINE OF TRADE: COMPARATIVE ADVANTAGE

International trade occurs because a buyer in one country desires something produced in another country, and is willing to pay the price required to obtain it. Implicitly, the buyer in question must prefer the imported item to a domestically produced substitute, either because it is cheaper or of higher quality (or both), or because domestically produced substitutes are unavailable. The theory of comparative advantage affords the predominant explanation for why such circumstances arise. We begin with the meaning and consequences of comparative advantage, and will then consider its genesis.

A simple illustration

Like many international economics texts, I will develop theory of comparative advantage in a simple, numerical illustration. Given the simplifying assumptions necessary to this illustration, the reader may wonder whether it has any generality or real-world applicability. In fact, none of the assumptions made here is logically necessary to anything of importance, and they merely serve to facilitate an accessible exposition. The next section indicates how greater generality on all fronts makes no essential difference.

Thus, consider an exceedingly simple global economy, with only two nations, A and B. Each nation has its own labour force, and let us assume that it is impossible (or unattractive) for labour to migrate from one nation to the other. The only input into the productive process is labour (measured in units of time), and all workers are identical. The only outputs are 'guns' and 'butter'. It is perhaps useful to think of this economy as one without firms, where the workers in each nation must simply choose whether to allocate their labour to gun or butter production. All markets are competitive.' Let transportation costs for guns and butter between countries be zero. The unit of currency in country A is the \$, while in country B it is the £. Lastly, let production in each nation occur in accordance with the following input-output table:

Labour Requirement Per Unit of Output		
	Guns	Butter
Country A	1.0	2.0
Country B	2.0	3.0

From an examination of the input-output table, observe that gun production in country A requires only half as much labour per unit of output as in country B, while butter production in country A requires only 2/3 as much labour per unit of output as in country B. Accordingly, country A has *absolute advantage* in the production of both guns and butter – country A is better at everything in this simple economy. One might thus be

tempted to conclude that country A will have no interest in trading with country B. But this conclusion would be incorrect, for despite its absolute inferiority in all lines of production, country B nevertheless has *comparative advantage* in the production of butter, and can export it profitably.

To see why, we begin by asking what the prices will be for guns and butter, in each country, in the absence of international trade (so-called *autarky*). The assumption that markets are competitive implies that each good will sell, in each country, for its marginal cost of production. The marginal cost of each good is simply the cost of the number of units of labour that go into it. With no loss of generality, assume that the currency units in each country are such that the market price of a unit of labour in autarky is 1.0. Hence, the autarky prices for guns and butter in each country will be equal to their labour input requirement. We can thus modify the input-output table slightly to create a table of autarky prices:

Labour Requirement Per Unit of Output		
	Guns	Butter
Country A	\$1.00	\$2.00
Country B	£2.00	£3.00

These prices accord with common sense: If it takes twice as much labour in country A to produce a unit of butter as it does to produce a gun, then a unit of butter ought be twice as expensive. Further, if the market price of the labour to produce a gun is \$1.00 and if prices reflect their marginal costs, then a gun should cost \$1.00 and a unit of butter \$2.00. Equivalent reasoning produces the respective prices of £2 and £3 in country B.

From this starting position of autarky, imagine that an entrepreneur from country A visits country B, and happens to bring along a gun. The entrepreneur observes the market prices for guns and butter in country B, and comes to the realization that the gun can be sold for enough local currency (£2) to buy $\frac{2}{3}$ of a unit of butter. The butter can then be transported back to country A (at zero cost given my earlier assumption) and sold at a price of \$1.33 ($=\frac{2}{3} \times \2.00). The returning entrepreneur can then buy a new gun in country A for \$1.00, and still have \$0.33 left over as profit for the transaction. He will quickly realize as well that by expanding the scale of operation, exporting lots of guns and importing lots of butter, a good deal of money can be made.

Had the entrepreneur from country A brought butter to country B rather than a gun, however, no such profit-making opportunity would exist. A unit of butter fetches only £3 in country B, which buys only 1.5 guns (double everything if the notion of $\frac{1}{2}$ gun is bothersome). The 1.5 guns can be sold in country A for \$1.50, which is \$0.50 shy of what is needed to replace the unit of butter that was sold in country B to get the 1.5 guns – the transaction thus loses \$0.50.

The analysis works in reverse if we imagine that an entrepreneur from country B visits country A and brings along some butter. The reader can readily verify that selling butter in country A at the autarky price, buying guns with the currency earned on the sale, and then returning to country B to sell the guns, is a profitable venture. Likewise, it is not profitable to bring guns into country A for the purpose of selling them and converting the currency into butter for sale in country B.

Entrepreneurs from country A can make money selling guns in country B because country A has *comparative advantage* in the production of guns. The entrepreneur from country B can make money selling butter in country A because country B has *comparative advantage* in butter production. Perhaps the easiest way to understand the concept of comparative advantage is to restate the autarky prices for each good in terms of the foregone production of the other good that is necessary to produce one unit of the good in question (the 'opportunity cost' of a unit of production in terms of the other good). Thus, in country A, because a unit of butter production requires two units of labour that could have been used to produce two guns, the price of butter in terms of guns is 2.0. Reciprocally, the price of guns in terms of butter is $1/2$, because a reduction of butter production by one-half unit frees the labour necessary to produce one gun. In country B, the analogous reasoning implies that the price of guns in terms of butter is $2/3$, while the price of butter in terms of guns is 1.5. When these prices are compared, it is evident that country A has the lower price of guns in terms of butter – $1/2$ versus $2/3$. Country B has the lower price of butter in terms of guns – 1.5 versus 2.0. Accordingly, gun production in country A sacrifices fewer units of butter production than it does in country B, and butter production in country B sacrifices fewer units of gun production than it does in country A. One can thus say that gun production is *comparatively* more efficient in country A, and that butter production is *comparatively* more efficient in country B.

These comparative efficiencies, as has already been shown in this example, are all that is necessary to create the opportunity for profitable international trade. They beget a difference across nations in the *ratios* of the prices for goods sold in autarky, which entrepreneurs can exploit by exporting the good that is relatively cheap locally (in terms of the other) and importing the good that is relatively expensive locally (in terms of the other).

The theory of comparative advantage thus yields a simple prediction: nations will tend to specialize in the production of goods in which they have comparative advantage, exporting them to other nations in exchange for goods in which they lack comparative advantage. Depending on the relative size of the countries in question and the demands for each good that they produce, the end result may be complete specialization (with no domestic production of certain goods) or partial specialization (simultaneous imports and domestic production of a particular good). The same principles apply to service sectors as long as the services are exportable (it is difficult to export a haircut).

Of course, once trade opens, the autarky prices that motivate trade will change. In the example here, as guns flow into country B the price of guns relative to butter should fall, and vice versa in country A. The precise changes in prices that will result will depend on consumer demand in each nation, a complication that we need not introduce for present purposes. In *equilibrium*, the economic returns to engaging in the import-export business should be no greater than the returns to engaging in other activities. But trade will persist, for if it were to cease the price differences that gave rise to it in the first instance would resurface and trade would again yield especially high returns.

Notice also how little is necessary for a country to have comparative advantage in *something*. In our two-country, two-good illustration, *any* difference in the ratio of the price of guns to butter between the two countries in autarky ensures that one country has comparative advantage in one good and one in the other. Only if the price ratios were identical across the two countries would comparative advantage disappear.

