On Ricardo and Free Trade

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Some distinguished theorists have lately entered into a debate over the merits of free trade after two of them had suggested that "free trade has necessary conditions" and "today these conditions are not met"[i]. In particular, they mean that David Ricardo's law of comparative advantage don't hold if the "factors of production" are free to move around, particularly if money and laboring persons are able to move faster than goods. Thus, in a way, this argument says that since people are free to move around, move their money around as well as their goods, free trade is bad. But how can it be that free movement of persons, money and goods is bad for free trade? How can it be that free trade is bad for free trade?

Let's have another look at the foundations of free trade. There is no need to provide Ricardo's example with England and Portugal again, but let's instead start with Adam Smith's elaboration on the nature and causes of the wealth of nations. The opening lines of Smith 1776 book reads: "The greatest improvement in the productive powers of labour, and the greater part of the skill, dexterity and judgement with which it is any where directed, or applied, seem to have been the effects of the division of labour."

The division of labor explains how it is possible to have such a high standard of living that people in many countries have today. It raises the labor productivity, makes the overall knowledge in the society to multiply, is the foundation for the use of machinery, etc. If division of labor was banned, we would become something like cave men in a week or two. In the light of this, it is a good thing that people are able to divide labor among themselves. But what are the conditions for this division of labor to occur on any wider scale? This is indeed the crucial question, as those able theorist referred to above seem to have noted.

It is Mises' great insight that Ricardo's law of comparative advantage applies to all levels of society[ii]. Hence, people in general, not only nations, divide labor among themselves according to their comparative advantages (and not according to their absolute advantages as perhaps is the common belief, shared also by Smith). Why not start looking at the level of the individual and then move to higher and higher levels abstraction?

The table shows Ricardo's example at an individual level. It shows the time requirements for Joe and George in two different lines of business, computer consulting and marketing. It takes Joe 90 minutes to fix a software bug and 80 minutes to make an ad, while the same things takes 100 and 120 minutes for George. Joe is better at everything, he has an absolute advantage in every line of business, and George has an absolute disadvantage in every line of business.

Absolute and comparative advantages. Time requirements in minutes.

		Joe	George
Computer consulting - 1 bug	takes	90 minutes	100 minutes
Marketing consulting - 1 ad	takes	80 minutes	120 minutes

Despite this, Joe will find it worth-while to associate with George. On his own, Joe would be able to make 1.125 ads for every bug or 0.889 bugs fixed for every ad, while George on his own get 1.200 average bugs fixed for every ad or 0.833 ads per bug fixed. Joe fixes more bugs in terms of finished ads than George, as 1.125>0.833, while George makes more ads in terms of fixed bugs than Joe, as 1.200>0.889. By specializing and trading, both will benefit.

Moreover, if they fixed 2 bugs and made 2 ads in 390 minutes without trading, they now could fix 2,125 bugs and make 2,200 ads by trading, while each of them worked as much as before. Labor productivity and overall output would increase.

All this is because George has a comparative advantage in making ads. He can thus out-compete Joe in at least one activity, in this case in marketing. Both parties are better off in the free competition. In a monetary economy, money being a prerequisite for advanced division of labor, Ricardo's principle, applied on the individual level, boils down to this condition[iii]

$$\frac{\text{buyer's hourly income}_{\text{activity B}}}{\text{producer's hourly income}_{\text{activity A}}} > \frac{\text{producer's time}_{\text{activity A}}}{\text{buyer's time}_{\text{activity A}}}$$

We can call this the division of labor condition and it is a condition that has to be fulfilled for trade to take place. The left hand side of (1) gives in the numerator the hourly money income of a potential buyer of some service in his ordinary line of work (activity B) and in the denominator the hourly money income of the producer of the same service (activity A). We can call the left hand side 'the relative income'. The right hand side of (1) gives in the numerator the time necessary for the potential producer to perform the work (activity A), while the denominator gives the time needed for the potential buyer in case he performed the service (activity A) himself. We can call this 'the relative productivity'. Thus, for the division of labor to occur, the relative income must exceed the relative productivity.

A more intuitively appealing way to say the same thing could be found by simply multiplying both sides by the respective denominators. We then have on the left hand side the potential buyer's hourly income in his ordinary work, times the time needed to perform the work by himself. On the right hand side, we simply have the time times the cost of the producer. Stated in this way, the division of labor condition simply tells us that the labor will be divided whenever the alternative cost of performing a task oneself exceeds the price offered by the other party.[iv]

This condition tells us that Joe's hourly income must be at least 50 percent higher if George is to make it in marketing. If we assume that George's hourly income is $10, Joe's hourly income must exceed $15, let's say it is $16. In this way the division of labor condition is fulfilled, since the relative income of 1.60 exceeds the relative productivity of 1.50. This implies that the price

George asks is 120 minutes*$10/hour=$20, while the implied alternative cost for Joe amounts to 80 minutes*$16/hour=$21.3. If the relative income exceeds the relative productivity in this manner the division of labor takes place. At the same time, if the relative income adjusts so that George can use his comparative advantage, also the absolute disadvantage of George disappears. If the relative income was equal or lower than 1,50, George would lose both his comparative advantage and all that would remain would be absolute disadvantages in all kinds of work.

This example might seem a bit special, with only two persons and all, but the fact is that only an extreme few of us have an absolute advantage at anything, at least for any longer period of time, while almost all of us have to rely on our comparative advantages to make a living. This means that from the perspective of the less productive George, the more productive Joe could as well represent the entire population on earth.[v]

The possibility to specialize according to one's comparative advantage is a prerequisite for the existence of a society with a considerable amount of division of labor. "[M]an becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, society, but in aiming at an improvement in his own welfare.", wrote Mises (Human Action, s. 160). It is the comparative advantages that explain why people find it worth associating with each other. The comparative advantages are the glue of society. The only condition is that each and every one of us is allowed to work at the money income necessary to find, use and maintain a comparative advantage. This holds at every level of society, across international borders. This includes moving yourself, your goods or your money wherever it takes in order to find the comparative advantage of the moment.

I find the argument that Ricardo's great principle doesn't hold because money or persons move around more easily than goods strange. Although logistics is important in actual trade, I can't see what logistics has to do with the principle. Moreover, saying that Ricardo's law only is applicable without production factor mobility, amounts to something like locking Joe and George into their rooms as a condition for them to be allowed to trade freely (via a hole in the door). Perhaps factor mobility is not a good thing for states, armed with things like GDP measures, but surely no one equates the State with Society, and certainly not those fine theorists referred to above?

Another thing that makes me a bit puzzled is to hear an American claim that back in Ricardo's days, major factor's of production, like persons couldn't move around (I think we can agree that factors like soil, climate and geography couldn't, but it seems to be more than a coincidence that those "conditions" holds today as well). That makes me wonder if my history teacher lied to me, because I had the impression that millions of people moved around the globe at that time, that hard money like gold or silver was shipped around the globe and that the shipment of goods was considerable in relation to what was actually produced. Old teacher Carsten told me that a third of the Swedish population left for the U.S. in the 1800's, after selling their land (making it worth less), but perhaps my memory is wrong. Anyhow, I didn't know that I was allowed to move anywhere outside of the EU, without asking for a hard-to-get permission, so I must also have missed something about the so free mobility of people. I suppose it would not be likely that a third of the Swedes would get a green card today, would it?

Taken on a national level, it is of course not possible for all countries to have absolutes advantages in all possible trades at the same time. It is not possible for a single country to have absolute disadvantages in all lines of business if there is free movement for persons, money and goods, because there would always be a comparative advantage in some line of business, for some persons or group of person, like a company. Thus, with free movement of labor, money and goods, there will always be some comparative advantages to explore.

The only condition necessary for Ricardo's principle to hold is that the division of labor condition at is fulfilled. It is a necessary condition both for international and national trade, indeed, all trade. This division of labor condition clearly is severely violated today, by the way of taxes, tariffs, regulations, national money monopolies and other Government devices, but that still has not been enough to stop people from trading for mutual benefit. However, this massive intervention does not make Ricardo's principle invalid, it only tells us that if there are no comparative advantages, free trade is the solution. The only condition for free trade is freedom to trade. I suggest giving the Nobel Prize to Ricardo (despite the detail about not being alive) for showing that free trade applies everywhere, at all levels of society, at all times. It is universally valid. For Joe and George, for Charles and Paul as well as for the U.S. and India.

Endnotes

[i] See an articleby Mr. Charles Schumer and Mr. Paul Craig Roberts, replies first by Mr. George Reisman and next by Mr. Joseph Salerno, and an answer again by Mr. Paul Craig Roberts.

[ii] Human Action, pp.159-63.

[iii] For more on that, see for example a preliminary draft of a paper of mine called "Taxes, Comparative Advantages and the Division of Labor".

[iv] It is also important to note that the sign has to be a strict inequality if we are to find any more advanced division of labor. This can be seen by returning to the example above, where we had that Joe is 50 percent more productive than George when it comes to marketing, i.e. the relative productivity was 1,50. For George to be sure to be able to use his comparative advantage in marketing, his total income has to be adjusted so that she will be able to perform the work at a lower cost than Joe would, taking into account the fact that it takes his a longer time to make an ad. This means that Joes hourly income must be at least 50 percent higher than George's if George is to be sure to be able to use his comparative advantage. This follows from the fact that if the income was exactly 50 percent higher, Joe would be indifferent between doing the work himself or buying it from George, a situation not very comforting for George. She would definitely be better of if Joe would be strictly better off by dividing the labor. However, this is not enough, this is not what the left hand side of (1) tells us. It is also necessary that the hourly income that Joe gets in computer consulting strictly exceeds the hourly she could get in marketing. Thus, we have two separate reasons for why it has to be a strict inequality in (1) if we are to be sure that the labor is divided and George to be able to use his comparative advantage. In this way, we also see why the difference in productivity between people tends to lead to differences in hourly income (as well as total income).

[v] The condition also has general applicability and holds even if (i) the relative productivity is less than one, i.e. the case where George is more productive than Joe in marketing, and where (ii) the relative productivity equals unity, i.e. when Joe and George are exactly as productive in marketing.