Ricardo &1992

To begin with, Ricardo as a scholar and economist lived in a period when the political economy, still being a school of philosophical thought, lived in the shadow of a great philosophical tradition going back to Hume, Berkeley, Locke, etc. Locke proposed in 'The Leviathan' that men's actions were guided by an Adam Smith-like invisible hand which ought to maximize the utility of society, the sum of all men's enjoyments. Thus Smith's argument for non-interference in trade, based on the theory of absolute advantage, involved a degree of moral arithmetic. Ricardo's theory of comparative advantage was bound to carry these overtones. Consider the following: "The pursuit of individual advantage is admirably connected with the universal good of the whole ..... it is this which determines that wine shall be made in France and Portugal, that corn be grown in America and Poland, and that hardware and other such goods shall be manufactured in England." Thus one can infer that trade is primarily dictated by a natural law, augmented by other naturalistic factors. Ricardo states that "each country producing those commodities for which by its situation, its climate, and its other natural advantages .... by their exchanging them for the commodities of other countries" should add to the sum of labour's enjoyments and "be augmented by a rise in the rate of profits."

Such powerful claims required reinforcement, and so in my turn I will reiterate Ricardo's arguments. The model he used is familiar to us, namely the simple two country, two good, two factor model; the goods being wine and cloth, the countries England and Portugal, and the factors labour and capital. Both domestic markets in England and Portugal are perfectly competitive. Ricardo was of the opinion that "the profits of the favoured trade will speedily subside to the general level" because "capital will naturally flow into .... advantageous trade". Ricardo asserts also that the variable factors of production, labour and capital, are both immobile. This can be inferred from the following quotation, given in reply to there arising a possible scenario whereby "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."

Consider the following. For England "to produce cloth may require the labour of 100 men for one year, and if she attempted to make wine, it might require the labour of 120 men for the same time". And of Portugal, "to produce wine in Portugal might only require the labour of 80 men for one year, and to produce cloth in the same country might require the labour of 90 men for the same time". Obviously Portugal enjoys absolute advantage in the production of both goods, yet its own interests are best served by producing wine and exporting its surplus, while England should produce cloth only. Why this is so, and thus an explanation of the theory of comparative advantage is given as follows.

Consider the opportunity cost involved in the production of wine (cloth) in terms of the foregone production of the other good, cloth (wine).

Opportunity costs for

	Wine	**Cloth**
Portugal	80/90 =8/9	90/80=9/8
England	120/100=6/5	100/120=5/6

A country has a comparative advantage in producing a good if the opportunity cost of producing the good is lower at home than in the other country. Thus Portugal has a comparative advantage in the production of wine and England has a comparative advantage in the production of cloth. As long as the two countries' opportunity costs for one good differ then comparative advantage will lie in the production of one or other good, in one or other country.

Where opportunity costs are equal for both goods in both countries, then trade will not occur.

To reiterate this, consider Ricardo's reappraisal of Smith's example of the shoemaker and the tailor. Ricardo says "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 1/5 or 20%, and in making shoes he can excel him by 1/3 or 33%. 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".

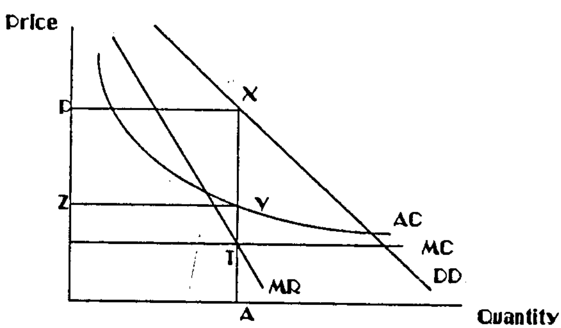
Returning to the example of wine and cloth, suppose that 1 unit of wine trades for 1 unit of cloth. In England whereby previously 1 unit of wine traded for 1 unit of cloth, now England can obtain its requirements of wine from Portugal but at a cost to England of 100 man hours per unit. Thus there is a saving of 20 man hours times the quantity of wine consumed previously. This saving can then be utilised in the production of greater quantities of cloth than had previously occurred, which can either be consumed or exchanged for more wine. Thus the value of trade equals quantity traded times traded price as calculated according to the exchange rate between gold as valued in England and Portugal. In the case of an individual incident of trade whereby "if by the purchase of English goods to the amount of 1000L a merchant can obtain a quantity of foreign goods, which he can sell in the English market for 1200L he will obtain 20% profit by such an employment of his capital." This 200L marks the increase in "the amount of value in the country" due to profits. But also "as a consequence of the price of foreign commodities being cheaper, a lesser portion of the annual produce of the land and labour of England is employed in the purchase of foreign commodities". This reduction of price by importation Ricardo views as equivalent to increased productivity through changing technology. "If by the introduction of cheap foreign goods I can save 20% from my expenditure, the effect will be precisely the same as if machinery had lowered the expense of their production, but profits would not be raised". Thus trade is of similar effect on domestic prices as if technology had reduced costs and so prices.

A more modern analytic framework would show that trade permits an economy to move to a new position on the production possibility frontier because of a change in the relative prices of wine and cloth. This new price ratio allows the economy to enjoy a higher level of general utility, on a higher indifference curve. This is essentially what Ricardo is alluding to. Note he states that trade releases labour and capital for the production of greater quantities of output than had previously been obtained, and that reduced prices will ensure that labour will consume that produce, thereby increasing the utility of society.

Ricardo says of impediments to trade that "bounties on exportation or importation, new taxes on commodities sometimes by their direct, and at other times by their indirect operation, disturb the natural trade of barter". Trade being determined by comparative advantage is as much a natural law as its utilitarian outcome; interfering in traded prices directly or introducing non-tariff trade barriers removes the profit of the merchant. By restricting his activities in one commercial market all others are disturbed to society's detriment. If Portugal was unable to trade its wine with England due to interference in free trade then "the diminution of money in one country and its increase in another (Portuguese export earnings fall, English import bill falls also) does not operate on the price of one commodity only, but on the prices of all, and therefore the price of both wine and cloth will be raised in England".

Ricardo's arguments are compelling, but revealed in Paulo Cecchini's detailed report concerning the gains from European integration and the benefits of a single market are succinctly different explanations of the causes of a large proportion of European trade, and how 1992 will release greater forces for trade. It would be wrong however to forget the enormous debt of gratitude owed Ricardo for laying the foundations of all subsequent theories of trade, theories from which the report derives much of its content. The report talks of gains from trade which are foreign to Ricardo's writings. Firstly, a form of trading which Ricardo did not consider was intra-industry trading. Ricardo gives no account of both Portugal and England trading both cloth and wine. Portugal either exports wine or imports it, but never both. But evident in the NESC report, *Ireland in the European Community*, are figures that give ranges of Intra-Industry Trade Indices from 0.28 to 0.68 of total trade in sections of the economy so the effects of 1992 upon intra-industry trade requires investigation. Secondly, Ricardo assumed that there exists perfectly competitive domestic markets. Obviously this is not a reality, so we need to explore the consequences of market integration upon imperfectly competitive markets, especially monopoly markets. Thirdly, beyond the initial "cold shower" effect the report lists dynamic effects, economies of scale, and the learning curve, again foreign to Ricardo and of significance in estimating the benefits of 1992. As a sub-theme of this I will postulate the effect upon industrial structure and movements of labour of economies of scale and the concentration of labour in the wake of 1992 for Ireland.

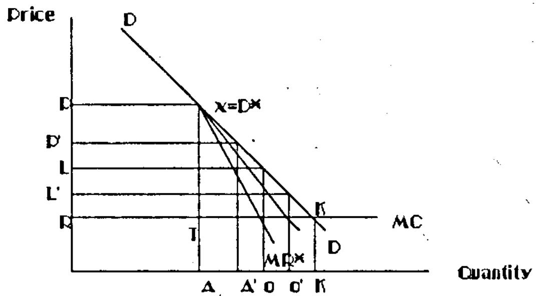
We can compose a model that explains how intra-industry trade arises, and from a position whereby previously the two oligopolistic firms were domestic monopolies. Assume that both firms produce the same good and that costs are sufficiently high to prevent the entry of a new firm. To keep the contrast with Ricardo, let the good be cloth and the firms be England plc and Portugal plc. Treating England's position as analogous to Portugal's so the following simple diagram is indicative of the pre-trade situation of both firms. The profit maximising output for England is that level of output at which MC intersects MR. Point T corresponds to OA output at price P. The price being found by tracing the plane through AT up to the Demand Curve DD, then across to P. Revenue equals OAXP and total costs OAYZ. (TC=AC.Q, AC derived from tracing the vertical plane through AT until it intersects the AC curve. The price OZ is in fact cost per unit of output if output is OA) TR - TC = P profits, which are ZYXP.



By their existing excessive prices and the siphoning off of supernormal profits, consumer surplus is reduced and society suffers a deadweight loss of welfare. So how does trade recoup some of these losses in both England plc's and Portugal plc's domestic markets?

The opening of trade creates a scenario of oligopolistic competition. It is strategically different to the monopoly model and Ricardo's early form of perfect competition, because as Kenen states "with oligopoly .... each firm is large enough to influence others and must forecast behaviour when making any move of its own". Our strategic assumption will be that each firm believes the other will maintain domestic output. A share of the foreign market will be attained only by setting a lower price than already exists. So already downward pressure can be seen operating on prices (on both domestic markets). We have worked from an assumption of identical cost and demand conditions, and factor endowments.

Trade occurring in such conditions goes against what I have attributed to Ricardo. Consider diagram 2, the English domestic market. Faced with effective demand D*D and thus MR*, Portugal plc sets price at OL, its output being OA, according to the P-maximising constraint MC = MR. Knowing that T is equidistant from R and K, so V is equidistant from T and K (how this is so is not essential to the purposes of this essay). England responds by reducing its price OP', its output being OA', and duly Portugal responds in turn subject to MR".



The pattern by which output expands is that for expansion of English output, Portuguese shipments increase by one half that amount. oo'=1/2AA'.

We can trace the relationship of England's and Portugal's changes in output through what are called reaction curves. These produce the final equilibrium output for England and Portugal in each respective domestic market. Overall there emerges a peculiar picture. Despite prices, costs and factor endowments being equal, intra-industry trade occurs, the result of which is that prices and profits fall due to strategic competitive forces. The welfare gains are increased output for consumption at lower prices, and with less deadweight loss. While oligopoly is still not a fully competitive situation our analysis demonstrates that movements to situations of greater competition bring gains.

And what is the relevance of this to the specific measures outlined in the Cecchini report? The report outlines various instances of non-tariff barriers to trade that will be removed: the abolition of customs formalities and related delays; the harmonisation of divergent national standards and regulations; the removal of domestic monopolies enjoyed in public procurement; the liberalisation of the financial markets. Some of these directly remove monopoly and oligopolistic practices in areas such as public procurement and the financial markets and so release beneficial competitive forces. Others tackle implicit trade restrictions that work through a mechanism of increasing transit costs etc. and thus allow price differentials beyond what 'natural barriers' might explain. The report states that competition is the key to reducing costs and prices of existing outputs. "Studies carried out in Britain and France show just how substantial are the losses in efficiency linked to monopoly power in certain industries. There is moreover an irresistable correlation (more than 80%) between the sectors for whose products there are large price differences between EC countries and those where industrial power is concentrated". The implications for firms is that profits will be increasingly responsive to the firm's competitive position. Profit margins will be squeezed but the effect of falling internal costs, and falling input and other external costs will keep profits bouyant despite the downward tendency in prices. However, in the medium- to long-term it is the firm's ability to seize the dynamic gains available which is crucial.

These dynamic gains of market integration and enlarged traded markets include economies of scale and the learning curve effect, as well as the orthodox dynamic effects of innovation and technical progress. Economies of scale are included because in the context of 1992, they will occur after the initial 'cold shower' effect on supply side conditions. Dynamics captures the essence of the bullish approach companies will require to expand output and so reduce costs through 'learning' (experience), and economics of scale through business rationalisation and the elimination of sub-optimal production. The report states that "comparative advantage is no longer seen as a divine inheritance" in marked contrast to Ricardo's view one hundred and seventy years earlier.

Krugman (1979) provides a simple model of internal scale economies. The effect of trade (intra-industry trade) upon a previously closed market facing constant marginal costs (so declining average costs) was to create "an increase in both the scale of production and the range of goods available for consumption". In Krugman's model the direction of trade is indeterminate, but by an extrapolation from our model of oligopolistic competition, we know costs to be the determining force behind trade flows. Again the distinction from Ricardo exists. The model states as an assumption that tastes, technology and factor endowments are all homogeneous being nations, yet through economies of scale trade occurs. The structure of competition is one of Chamberlinian monopolistic competition. Obviously 1992 will result in many varied forms of market structure, and with degrees of competition greater than monopolistic competition, but there do exist fears amongst certain EC members that scale economies may lead to a concentration of industry and the most mobile sections of the labour force, to the detriment of peripheral economies such as Ireland. We can use Krugman's model to explore this.

As an extension of the model, Krugman allowed for movement of labour between countries. As in the Heckscher-Ohlin Theory of world trade, trade and factor movements can be viewed as substitutes, factor movements being induced by impediments to trade. In its extreme form, a complete blockage of trade would result in mass emigration to the region with the greater real wage, variety of goods etc., but in a more realistic form Krugman suggests "suppose that the population of each region is divided into a mobile group and an immobile one. Migration would then move all the mobile people into one region, leaving behind an immiserised Appalachia of immobile people whose standard of living is depressed by the smallness of the market". There are those who suggest that Ireland will eventually become the "Appalachia" of Europe due to our position on the periphery of European industry, and the existing high levels of emigration. But if anything, I contend that1992 and all that goes with it will present Ireland with an opportunity to stem the flow of emigration, and Krugman's findings suggest this is possible.

The benefits ushered in by European market integration will manifest themselves directly as consumer benefits, reduced prices, greater output for consumption and a greater range of products due to product differentiation and innovation. Ricardo was aware of this, although not of their existence outside the confines of international trade. However unique to the Cecchini report is the increased Pan-European attitude to technology and product innovation that 1992 will enact through market forces, the more practical harmonisation of standards and a new psychological attitude to European co-operation. Ricardo viewed trade in a nationalistic manner, but to be fair to Ricardo he was less European in outlook. 1992 will provide valid economic motivations for technological co-operation but I strongly believe, it represents a watershed, a psychological barrier beyond which our commitment to trade is not simply based on its utilitarian benefits but our mutual interdependence in Europe. Yet in its essence it is a return to the spirit of Ricardo.

Mark Whelan

Readings

Paoulo Cecchini, *The European Challenge 1992.*

Kenen, *The International Economy.*
Paul R. Krugman, *Increasing Returns, Monopolistic Competition, and International Trade.* (Journal of International Economics),November 1979.
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