

## An Essay on the Doctrine of Comparative Advantage and Its Present-Day Validity

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### บทคัดย่อ

ต่อเนื่องจากผลงานของ เดวิด ริคาร์โด ที่ถูกนำมาเป็นเหตุผลใช้ในการสนับสนุนการค้าเสรี ในช่วงศตวรรษที่ 19 ทำให้เกิดการโต้เถียงในบรรดานักเศรษฐศาสตร์หลายสำนักว่า ทฤษฎีความได้เปรียบเชิงเปรียบเทียบ (Theory of Comparative Advantage) และสมมติฐานของทฤษฎีนี้สามารถนำมาประยุกต์ใช้ในโลกของความเป็นจริงได้หรือไม่ บทความนี้จึงวิเคราะห์ทฤษฎีนี้ในแนวคลาสสิก และ แนวเศรษฐศาสตร์ปัจจุบัน และเสนอบทสรุปให้กับข้อโต้เถียง

### Abstract

Following the work of Ricardo, many economists debate whether the idea of comparative advantage and its assumptions remain valid in explaining real-world phenomena of international trade. The main issue of this essay centers around the plausible gains from trade amongst countries. Should countries benefit from trading, free trade must be encouraged. If that were the case, barriers to trade would cause a country to gain less and, therefore, should be discouraged. This essay goes on to explain the gains from trade in terms of classical and modern-version interpretations. Then criticisms on the validity of the doctrine and its assumptions are considered. Eventually, the paper reaches a conclusion to the central question: Does the doctrine of comparative advantage apply to real world? Or, is it so oversimplified that it fails to explain international trade in the real world?

The so-called “eighteenth century rule” states that imported goods could be acquired more cheaply abroad even if their *absolute cost* of production is lower than at home, provided exports can be produced more cheaply than imports. In arguing for free trade policy debates, most economists relied on the intuitive efficiency argument associated with absolute advantage. Illustrated in Table 1, Blaug (1997) clearly presents the three kinds of cost ratios for pairs of goods between countries to be considered: equal differences (case I), absolute differences (case II) and comparative differences (case III).

Table 1: Labour hours required to produce the goods

	Equal differences: I			Absolute differences: II			Comparative differences: III		
	Cloth	Wine	Pw/Pc	Cloth	Wine	Pw/Pc	Cloth	Wine	Pw/Pc
England	100	88	0.88	100	60	0.6	100	120	1.2
Portugal	90	80	0.88	90	80	0.88	90	80	0.88

Source : Table 4.5, Blaug (1997), p,119

Adam Smith knew that no foreign trade could arise when the cost ratios for two goods between two countries are equal (case I). According to him, trade took place only when both countries had an absolute cost advantage in one good (case II). A few eighteenth-century writers began to advance this rule but almost no one realised that all goods need not be produced in countries where their real costs of production are lowest (Blaug, 1997).

According to Viner (1937), however, several scholars before Adam Smith, particularly the author of *Consideration on the East-Indian Trade* (1701), had mentioned the case for free trade in terms of a rule providing similar explanation for profitable trade as does the doctrine of comparative costs. Even if a country has an absolute cost disadvantage in all goods, it still pays to import commodities from abroad whenever they can be obtained in exchange for exports at a smaller *real* cost than their production at home would entail. David Ricardo, in his famous Chapter VII, ‘On Foreign Trade’ (1871), received credit for expounding the idea of comparative costs.<sup>1</sup> He was the first economist to advocate a

<sup>1</sup> The idea of comparative advantage, according to Thweath (1976), originated from James Mill. Mill wrote the pages on it in Ricardo’s *Principles*. Ricardo was only interested in the rate of rent or profit.

separate theory of *international* as distinct from *international* trade. Due to the unequal rate of profit amongst countries caused by relative immobility of capital, the labour theory of value cannot pertain to goods. In his *Principles*, he presents what is to become the widely used example of Portugal and England exchanging wine and cloth (case III). In such exchange, Portugal has an absolute cost advantage in the production of both commodities but comparative cost advantage in wine. This conception of gains from trade emerges as a direct opposition to that of the mercantilist doctrine.

Following the work of Ricardo, many economists debate whether the idea of comparative advantage and its assumptions remain valid in explaining real-world phenomena of international trade. The main issue of this essay centers around the plausible gains from trade amongst countries. Should countries benefit from trading, free trade must be encouraged. If that were the case, barriers to trade would cause a country to gain less and, therefore, should be discouraged. This essay goes on to explain the gains from trade in terms of classical and modern-version interpretations. Then criticisms on the validity of the doctrine and its assumptions are considered. Eventually, the paper arrives at the answer to the central question: Does the doctrine of comparative advantage apply to the real world? Or, is it so oversimplified that it fails to explain international trade in the real world?

To begin with the definition, the 'gains from trade' in Ricardo's concept refers to the 'happiness of mankind' in terms of having an increase in consumption of one good without a reduction in consumption of other goods. E.K. Hunt (1981) suspects that, despite his labour theory of value, Ricardo's conclusion that free trade would increase the 'sum of enjoyments' of each country implies a utility theory of exchange value. Thus, higher price would lead to greater utility or satisfaction for the consumer. To be consistent with utility reasoning, the import of the relatively more expensive commodity (wine) would increase the 'sum of enjoyments'. Landlords and capitalists would prefer to spend their surplus on both cloth and wine. On the contrary, the labour-theory perspective would have suggested that the importation of wine be prohibited until every worker had adequate clothing (the domestically produced good). Workers would prefer to have more clothing and less wine. This would increase 'social welfare' more than the importation of wine which merely pandered to the tastes and monetary demands of capitalists and landlords. Hunt explains

contradiction in Ricardo's thought by the fact that although he fully recognised the reality of class conflict, Ricardo was not aware of the possibilities of social change. According to Gomes (1987), Ricardo took property relationships, the distribution of wealth and power and class relationships as "given, natural and unchanging."

Despite Hunt's suspects, foreign trade "...increases the amount and variety of the objects on which revenue may be expended, and affords, by the abundance and cheapness of commodities, incentives to saving, and to the accumulation of capital, has no tendency to raise the profits of stock, unless the commodities imported be of that description on which the wages of labour are expended" (Ricardo, 1871). Thus, it cannot be claimed that only the landlords and capitalists enjoy the gains from trade. Even if the commodities imported are expended by the wages of labour which lead to a decline in wage rate and an increase in profit, the labour's purchasing power would remain unaffected. In fact, since gains from trade in Ricardo are measured in terms of labour-day gained with compared to without trade, the imported good (with entails higher labour cost ratio if produced at home) would certainly lead to higher utility. Moreover, there will be more "variety" of products to choose from. These are clearly the *gains* from trade. As for the capitalists, they would enjoy the increase in profit rate should the price of low-wage goods decline as a result of trade. On the whole, everyone is better off. This demonstrates that trade leads to higher increase in "social welfare" than the case of autarky. There does not seem to be any contradiction in the idea.

It has explicitly been demonstrated in Ricardo's *Principles* how countries could gain from trade. To understand the underlying mechanism of his claims, it is necessary to undergo the explanation of the patterns of trade. It remains arguable whether the labour theory of value could determine the patterns of trade. Ricardo assumes strict proportionality between labour time (physical costs) through the labour theory of value and money costs or final commodity price. Gomes (1987) asserts that there was no reason to expect it to be so. However, the purpose of this essay is not to discuss or provide explanations for the patterns of trade, Instead, the pattern of trade explained in Ricardo's *Principles* is employed as a tool

for explaining the gains from trade. The concept of gains from trade can be explained in terms of the idea of comparative costs. The theory of comparative costs is most easily understood by recalling Ricardo's example in his *Principles*:

*"...England may be 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 requited 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..."*

**It is assumed that the exchange of goods amongst the countries is on one-to-one basis:**

*"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 give for the produce of 80 Portuguese, 60 Russians, or 120 East Indians..."*

The modern version of Ricardo's explanation of comparative advantage has been reformulated so as to bring out the essential point that what matters is differences in the alternative *opportunity costs* of commodities in the absence of trade. This has been done in order to abandon the labour theory of value (Johnson, 1987). Krugman and Obstfeld (1994) explain Ricardian Model in the beginning chapter using a simple one-factor economy (labour is the only factor of production) with only two goods, wine and cheese and two countries, Home and Foreign. Since there is only one factor of production, the production possibility frontier (PPF) in a two dimensional diagram (with vertical and horizontal axes) is

a straight line. Thus, the limit of production of two goods in the economy is enclosed within the PPF. They conclude that the effect of the convergence in relative prices is that each country specialises in the production of that goods in which it has relatively lower unit labour requirement. Home specialises in cheese production and Foreign in wine.

Krugman and Obstfeld (1994) show that both countries derive gains from trade from specialisation. This is shown in two alternative ways. The first way is to take trade as an *indirect* method of production. International trade allows Home to “produce” wine by producing cheese and then trading the cheese for wine. This method proves to be efficient. Wine could be indirectly produced at a lower opportunity cost. The other way to see this mutual gains is via the effects of trade on each country’s possibilities for consumption. In the absence of trade, consumption possibilities are the same as the production possibilities. With the opening of trade, each economy is able to consumer a different mix of cheese and wine. In each case, trade has shifted the tange of choice, and therefore, the consumption possibilities frontier outward, making residents of each country better off.

There is a number of criticism or corrections of Ricardo’s analysis of which some will be discussed in this essay. Krugman and Obstfeld (1994) raise three “misconceptions” about comparative advantage. The first is the claim that “*free trade is beneficial only if your country is productive enough to stand up to international competition*”. This fallacy, often applied to underdeveloped countries, reveals negligence of the fact that an absolute productivity advantage over other countries in producing a good is neither a necessary nor a sufficient condition for having comparative advantage. The second misconception is that of Sweatshop Labour Argument: “*Foreign competition is unfair and hurts other countries when it is based on low wages.*” Writers such as Goldsmith (1994), according to Krugman (1996), often encountered this “Pauper labour fallacy,” saying that there are countries out there that pay wages that are mush lower than those in the West and that makes Ricardo’s idea invalid. In fact, a low money wage rate in low-productivity countries is a necessary condition for countries to benefit from free trade (Blaug, 1997). This provides further explanation for the fact that the low-cost country has the higher gold wage and, thus, a

higher money price for similar goods. In terms of balance-of-payment explanation, the adjustment (devaluation via the international monetary market) of the exchange rate in a country with overall comparative disadvantage would allow her to benefit from importing goods which she has the greatest disadvantage.

The third myth is related to the Marxist idea of unequal exchange: "*Trade exploits a country and makes it worse off if the country uses more labour to produce the goods it exports than other countries use to produce the goods it receive in return.*" In defense of this, one should not compare the domestic labour used to produce exports with that of the foreign labour used to produce imports. Why not? Simply because what has to be compared is not costs but *ratios* of costs (ie., alternative costs) of production. The same conclusion can be derived from either comparing the cost ratios of producing the same good in different countries or the cost ratios of producing different goods domestically (Viner, 1937). Krugman and Obstfeld (1994) plainly asserts that one should compare the labour used to produce exports with the amount of labour it would have taken to produce imports at home. If a country can import goods at lower cost than they could be produced at home, that is good enough. Resources at home could, thus, be allocated to other productions of which home has comparative advantage. That is clearly the *gain* from trade that a country should benefit (and not 'exploit') from without hurting its trading partner.

Ricardo's statement that complete specialization would necessarily be profitable to each of two countries if they had comparative differences in costs of production has been criticised by Pareto and A.F. Burns (Viner, 1937). They demonstrate that complete specialization may be unprofitable. Burns goes further by arguing as if specialization along the lines of comparative advantage necessarily involved complete specialization. He, then, claims that whenever such specialization results in more of one commodity but less of another it is impossible to show that free trade has been profitable. In defense of this, Viner (1937) shows that he overlooks the fact that if the specialization is voluntary it will not be carried to the point at which the marginal unit exported is worth less on the market than what is obtained in exchange for it. While there may not be profit from trade for one of the

countries, there must be profit for at least one of the countries. He asserts that neither country will face loss if, in each country, the prices of its own products are proportional to their real costs.

Steedman (1987) suggests that it is a shortcoming of the 'textbook' Ricardian trade theory that makes no reference to 'capital'. By doing so, the simple results from neglecting the importance of capital goods (and hence, profit accumulation) and technical progress may not be abundant and may "do violence to the complex realities of international trade." The assumptions made in the textbook version are: (1) that wages are the only kind of income and (2) that labour is homogenous. Thus, the autarky price ratios in an economy are exactly proportional to the quantities of labour required to produce the various commodities. Steedman claims that the 'textbook' Ricardian model is not a good representation of Ricardo's theory because it ignores the positive rate of profit of which Ricardo supposes there to be. He considers a two-country, two-consumption commodity model in which, in each country, the autarky price ratio of the two consumption commodities depends on the ruling  $(r, w)$  under autarky ( $r$  is the rate of profit and  $w$  is the wage rate). One of the explanations for such dependence is the use of non-tradable machines (which requires capital costs) in making the consumption commodities. Should the autarky rate of interest be zero in either economy, the autarky ratio of the two consumption commodities will indeed equal the ratio of their total (direct and indirect) labour costs. However, if the autarky interest rate is not zero, that autarky price ratio will not equal the corresponding labour cost ratio. There is, then a problem with the model because, depending on the different slopes of the autarky price ratio, of the terms of trade and of the labour cost ratio, it is not ensured that there will be a gain from trade. This argument can be extended to a steadily growing economy, to show that in the 'Golden Rule' case (where  $r = n$  in Blanchard and Fischer, 1996), the with-trade bundle must lie outside the achievable autarky frontier. However, if the growth rate is less than the profit rate (ie.,  $r > n$ ), then it may or may not be so.

Steedman further claims that Ricardo "supposes there to be a positive rate of profit and, indeed, shows how the opening of trade can increase that rate." On the contrary, it is crucial to note that Ricardo, in his Chapter VII, tried to show that the rate of profits will not be affected by the fact that (nominal) wages are higher in the country possessing advantage in higher labour skills and more advanced machineries. Advancing from the initial barter trade system that he initially portrayed earlier in the Chapter, Ricardo turned to the explanation of how money, as a medium for exchange, differs in value across countries: *"In the former part of his work, we have assumed, ... that money always continued of the same values; ... there are also partial variations to which money is subject in particular countries; and in fact, that the value of money is never the same in any two countries, depending as it does on relative taxation, on manufacturing skills, on the advantages of climate, natural productions, and many other causes..."* He also explained the underlying mechanisms for different exchange rates in different countries. Regarding this, it can be referred to the modern concept of the balance of payments, consisting of current and capital accounts. Thus, it cannot be said that Ricardian model, as claimed by many intellectuals in Krugman (1996), is so oversimplified that it only applies to barter system.

Since classical theory 'failed' to provide adequate explanations for the observed fact that specialization amongst countries was largely "a result of historical accident," it has received debates from the national economists who are in favour of protectionism (Gomes, 1987). They believe that a country's infant industry should be protected. Friedrich List<sup>2</sup>, the German political exile, has in fact, in the early 1820s defined the gains from trade quite differently from that of Ricardo's definition and began the attack on classical theory. He attacked Adam Smith's cosmopolitan views as not able to gain wealth for the nation. Considering gains from trade in terms of 'productive forces' and the 'potentials' of the country, List asserted that a nation should, at the initial stage of industrialization, protect

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<sup>2</sup> Similar criticisms have been carried on by writers such as Joan Robinson, Raoul Prebisch, Gunnar Myrdal and John Henry William. This is detailed in Gomes (1987, p.308.)

its infant industries until they can compete with fierce foreign competition. He believed that a nation would lose a part of its exchange values but would gain immensely in the long run when the social benefits from protectionism are reaped. He did not go through much theoretical arguments but insisted on practicality. There were no indications that he was aware of the principle of comparative cost. Thus, it is doubtful whether his claims are completely valid. His view was said to be motivated by the "narrowest and most short-sighted of selfishness".<sup>3</sup>

Despite List's and others' claim of being static, the classical model of foreign trade encompasses the dynamic elements of the real world. Certainly, this is not the forefront of the analysis. However, this leads to mentioning the fact that Ricardo was very well aware of the development of production methods (ie., the improvements in 'arts and machineries') which involves a dynamic approach. This, amongst many other examples in Chapter VII of his *Principles*, is evident when he wrote, "*Now suppose England to discover a process for making wine, ... she would naturally divert a portion of the capital from the foreign trade to home trade ... cloth would continue for some time to be exported ... but money instead of wine would continue to be higher in Portugal...*" He also implicitly implies that trade benefits the country in a similar manner as does the improvement in machineries. Ricardo felt no necessity to elaborate further because all he was interested was the effects of foreign trade on the rate of profit. Nevertheless, this was sufficient enough to explain the gains from trade.

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<sup>3</sup> This is the opinion of J.R. McCulloch in Travers Twiss' (1847) *View of the progress of political economy since the 16<sup>th</sup> century*.

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