Abstract

Ricardo’s texts offer us much more on international trade than the celebrated “four magic numbers”. If we look beyond the few paragraphs that, in Chapter 7 of the Principles, deal with what was called later “comparative advantage” and the related “gains from trade”, we find a much comprehensive approach which involves almost all of Ricardo’s writings, shows how his real and monetary analyses are inextricably intertwined and situates comparative advantage in a more accurate perspective. No doubt that, in spite of all the ambiguities presented by his texts, Ricardo’s unity of view is remarkable.

The enquiry starts with a brief reassessment of the main features of Ricardo’s views on foreign trade. Then some difficulties and ambiguities presented by his texts are dealt with, concerning the method of analysis and some questions pertaining to the (in)validity of the labour theory of value at the international level. The enquiry then goes on investigating whether, in Ricardo’s opinion, there are some significant differences between domestic and international activities. On the basic fact that all transaction is necessarily expressed in monetary terms, a simple and general rule explaining the flows of trade is proposed. Some important points are finally analyzed: the characteristics of an international equilibrium, the nature and impact of destabilizing shocks, the determination of international prices and the nature of specialization — all points showing the systematic interaction, in Ricardo’s approach, of real and monetary phenomena.

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Every transaction in commerce is an independent transaction. — Ricardo, 1817-1821: 138.

My speaking is like my writing too much compressed. — I am too apt to crowd a great deal of difficult matter into so short a space as to be incomprehensible to the generality of readers. — Ricardo to Malthus, 24 December 1815, VI: 335.

Perhaps no part of Ricardo’s writings is more celebrated than his views on international trade. Of course his theory of value and price is also well-known but it has been from the beginning heavily contested and is no part of the current economic teaching. His theory of money and banking were of the utmost importance during more than a century but are no longer topical. Compared with these aspects of his views however, what was called the theory of comparative advantage certainly presents an atypical profile: relatively neglected until John Stuart Mill’s celebrated Essays on Some Unsettled Questions of Political Economy (1844), it could easily be adopted by most economists¹ and still forms nowadays the main building-block of the theory of international trade. In addition this theory presents two other atypical features. First of all it occupies only a few paragraphs in Ricardo’s writings: so that some commentators could even maintain that they were not written by Ricardo but inserted by James Mill — a thesis, oddly enough, still accepted by some scholars. Secondly, and much more worrying, most interpretations of these paragraphs excerpt them from the rest of Ricardo’s celebrated Chapter 7, “On foreign trade”, thus neglecting 85% of the chapter and, unfortunately, the monetary aspects of the question.

Fortunately some recent appraisals — especially Ruffin’s (2002),² but see also for example Aldrich (2004) and Maneschi (2004) — shed new light on Ricardo’s text. But they remain concentrated, in a traditional way, on these few paragraphs, missing the link not only with the rest of the chapter but also of the book. The basic problem remains and it seems that, as it has recently been asserted: “The clarity of the Ricardian model of comparative

¹ The most comprehensive historical account of the story is certainly that of Maneschi 1998.
² Developping, in a way, on Sraffa 1930.
advantage is spurious; read in context, it prompts more questions that it resolves” (Tribe 2006: 79). A reappraisal of Ricardo’s theory of international trade is all the more essential now, especially in connection with his views on money.

Such an attempt is presented in this paper. The enquiry starts with a brief reassessment of the main features of Ricardo’s views on foreign trade (section 1). Then some difficulties and ambiguities presented by Ricardo’s texts are dealt with (section 2) concerning in particular the method of analysis — showing the necessity to focus on the micro level of the motivations of agents in free markets — and some questions pertaining to the (in)validity of the labour theory of value at the international level. The enquiry then goes on investigating whether, in Ricardo’s opinion, there are some significant differences between domestic and international activities (section 3) — a central question to assess whether foreign trade presents any specificity. On the basic fact, stressed by Ricardo, that all transaction is necessarily expressed in monetary terms, a simple and general rule explaining the flows of trade is proposed. Sections 4 and 5 deal with some other important points developed by Ricardo: the characteristics of an international equilibrium, the nature and impact of destabilizing shocks, the determination of international prices and the nature of specialization — all points showing the systematic interaction, in Ricardo’s approach, of real and monetary phenomena. Section 6 provisionally concludes this enquiry.

1. A preliminary reassessment

In sharp contrast with the usual textbook presentation that are more in line with John Stuart Mill than Ricardo — a presentation unfortunately widely received in the history of economic thought — Ricardo’s analysis of international trade starts with a specific exchange that is supposed to take place between England and Portugal: \( x \) unit of Portuguese wine are exchanged for \( y \) units of English cloth. It is also stated that, had each country to produce these quantities of both commodities, Portugal would employ 80 and 90 units of labour respectively to produce \( x \) unit of wine and \( y \) units of cloth, while England would need 120 and 100 units of labour respectively to produce them.

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3 Two notable exceptions are Sraffa 1930 and Ruffin 2002.
The gains from trade

For each country, the gains from trade are thus immediately determined: they consist in the difference between the cost — here the units of labour — it would have spent in the home production of the quantity of foreign commodity it receives and the cost of the quantity of the home commodity it gives in exchange. In Ricardo’s example Portugal’s gains from trade are thus of 10 units of labour — Portugal gives $x$ units of wine, the product of 80 units of labour, for $y$ units of cloth for the home production of which it would have spent 90 units. And England’s gains from trade are determined in a similar way: they consist in 20 units of labour. Both countries can employ the units of labour they save in the production of more wine or cloth or any other commodity, and, while the gains from trade are not equal on each side, both countries nevertheless can enjoy a greater amount of use values.

Of course countries and consumers can apparently get some other advantages from international trade. In his *Principles of Political Economy*, for example, Malthus wrote:

But this is [Ricardo’s view] only looking to one half of its advantages, and I am strongly disposed to think, not the larger half. In our own commerce at least, this part of the trade is comparatively inconsiderable. The great mass of our imports consists of articles as to which there can be no kind of question about their comparative cheapness, as raised abroad or at home. If we could not import from foreign countries our silk, cotton and indigo, our tea, sugar, coffee and tobacco, our port, sherry, claret and champagne, our almonds, raisins, oranges and lemons, our various spices and our various drugs, with many other articles peculiar to foreign climates, it is quite certain that we should not have them at all. To estimate the advantage derived from their importation by their cheapness, compared with the quantity of labour and capital which they would have cost, if we had attempted to raise them at home, would be perfectly preposterous. In reality, no such attempt would have been thought of. If we could by possibility have made fine claret at ten pounds a bottle, few or none would have drunk it. (in Ricardo 1820: 419)

In his notes to Malthus’s *Principles*, Ricardo did not object. This kind of advantage is only a special case of his general rule and is moreover so obvious that he probably thought that it was not worth mentioning it explicitly. He referred to it however at least once in his *Principles*. When discussing the case of Poland, he envisaged the possibility for this country to be “exclusively blessed with some natural production, generally desirable, and not
Malthus is not the only critique of the Ricardian conception of the gains from trade. As is well known John Stuart Mill, in the first of his *Essays on some Unsettled Questions of Political Economy*, “Of the laws of interchange between nations, and the distribution of the gains of commerce among the countries of the commercial world” — written in 1829-30 but published in 1844 only — accused Ricardo of incoherence. In his evaluation of the gains of each country, Ricardo is supposed to have depicted a situation in which, illogically, each of them gains the whole of the advantages they together get from trade.

Mr. Ricardo […] unguardedly expressed himself as if each of the two countries making the exchange separately gained the whole of the difference between the comparative costs of the two commodities in one country and in the other. But the whole gain of both countries together, consisting in the saving of labour; and the saving of labour being exactly equal to the difference between the costs, in the two countries, of the one commodity as compared with the other; the two countries taken together gain no more than this difference: and if either country gains the whole of it, the other country derives no advantage from the trade. (Mill 1844: 5-6)

Notwithstanding the fact that, curiously enough, J. S. Mill does not directly refer to Ricardo’s text when stating the principle of comparative advantage but instead quotes from the third edition, 1826, of James Mill’s *Elements of Political Economy* (Mill 1844: 3-4), the primary mistake made by both father and son lies in the fact that, first implicitly and then explicitly, they interpret Ricardo’s “four magic numbers” — as they were called later by P. A. Samuelson — as the costs of production of one unit of each commodity in the respective countries. The consequences of this interpretation are significant. This mistake is at the origin of the above accusation of inconsistency. It induced also J. S. Mill to try to determine how the two countries could share the gains from trade. For that purpose he started with a situation of autarky and, introducing the reciprocal demands of each country for the product of the other, he showed how a global gain could be shared according to different international relative prices included in the interval limited by the comparative

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4 In the example put forward by J. Mill and reproduced by his son, England and Poland exchange cloth and corn. Then, in the text, John Stuart Mill developments deal with England and Germany exchanging cloth and linen. In each case, the “four magic numbers” are different from Ricardo’s.
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

costs of each country — the autarky prices. The stage was thus set for one and a half century of comments and developments.

Polemical stances

Ricardo’s presentation of the beneficial character of international trade possibly entails an implicit polemical stance against various 18th century restatements of the theory of the balance of trade in the guise of a balance of labour. However that may be, two important conclusions are explicitly advanced by him.

On the one hand, and contrary to what could be thought at first sight, an international exchange is possible between two countries, and profitable to both of them, notwithstanding that one of them has, in real terms — i.e., in terms of the labour theory of value — what has been called an “absolute advantage” in the production of the traded commodities. Portugal for example imports cloth from England in spite of the fact that it could produce it at home with less labour.

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. (1817-1821: 135)

As we know, this analysis can be considered as a simple extension of what Jacob Viner (1937) called “the 18th century rule” that “it 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” (1937: 440). Ricardo simply added an important qualification: this includes the case in which the imported commodities could have been produced at home at a lower real cost than abroad.

On the second hand — a polemical statement against Adam Smith, stressed again and again in the Principles and repeated afterwards against Malthus — the benefits each country

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5 This is in fact a British “rule”. In France, from Boisguilbert to Turgot, the role of a free foreign trade, thought fundamental, is grasped on a different basis: it allows to stabilize prices at their optimal level (see for example Faccarello 1999).
gets from trade do not concern directly the rate of profit but only (a) the amount of use values and utilities\(^6\) that each country can dispose of and (b) the incentive it gives “to saving, and to the accumulation of capital” (1817-1821: 133) because it “may thereby enable us to augment the funds destined for the maintenance of labour, and the materials on which labour may be employed” (1817-1821: 132). Foreign trade affects the rate of profits, \textit{ceteris paribus}, through its action on nominal wages.

It is quite as important to the happiness of mankind, that our enjoyments should be increased by the better distribution of labour, by each country producing those commodities for which by its situation, its climate, and its other natural or artificial advantages, it is adapted, and by their exchanging them for the commodities of other countries, as that they should be augmented by a rise in the rate of profits.

It has been my endeavour to shew throughout this work, that the rate of profits can never be increased but by a fall in wages, and that there can be no permanent fall of wages but in consequence of a fall of the necessaries on which wages are expended. If, therefore, by the extension of foreign trade, or by improvements in machinery, the food and necessaries of the labourer can be brought to market at a reduced price, profits will rise. […] but if the commodities obtained at a cheaper rate […] be exclusively the commodities consumed by the rich, no alteration will take place in the rate of profits. (1817-1821: 132)

This presentation discards of course some traditional questions as irrelevant: the countries are not first considered in autarky, the analysis is starting precisely from an “actual” exchange. It also puts in a different perspective some other important topics that have been discussed during decades, for example the question of how the international exchange ratio \(x\) units of wines = \(y\) units of cloth is determined: but it will be shown that to put it in these (real) terms is misleading and that an answer can be found only once we introduce money prices into the picture.

We must recognize, however, that most interpreters could plead not guilty and speak in favour of extenuating circumstances. Ricardo’s texts are sometimes complex and he was so often trying to explain such novel propositions and fighting with new analytical difficulties that he could not avoid some ambiguities. Let us now focus on some of them.

\(^6\) “[…] foreign commerce modifies the quality and increases the variety of productions which compose the mass of wealth, and only adds to the natural growth of its quantity by giving a more beneficial employment to labour.” (1810-1811b: 331-332)
2. Some analytical difficulties

There are in my view two main difficulties arising from the texts always referred to when dealing with foreign trade. The first — a problem that is also to be met with in his monetary theory — consists, in modern parlance, in focusing on the macroeconomic level of the analysis, neglecting or presenting in an ambiguous way the underlying microeconomic motivations of the agents. The second refers to Ricardo’s most celebrated statement that the theory of value, which determines the domestic exchange ratios between commodities is no longer valid for the exchanges between nations.

From macro to micro-analysis

From a macroeconomic point of view, the gains from trade dealt with above are evident. But stressing these gains is just an *ex post* analysis i.e., the overall result of the actions of agents in markets during a period. The overall benefits from trade are not the motive of their action and cannot explain the multiple decisions to import or export commodities: in a free market society international exchanges are not the business of governments or planners who would decide which international flows to favour in order to increase the welfare of the country.

And yet in the famous sentences that state the principle of comparative advantage — and in many other places — Ricardo’s text seems to suggest that this is the case. “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 [that of the country] advantage is admirably connected with the universal good of the whole.” (1817-1821: 133-134) The countries themselves, Portugal and England, are seemingly the protagonists in the game.

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. (1817-1821: 135)

This perspective is also the usual textbook presentation in international trade theory. But it
is misleading. Individual agents have to be involved as the prime movers and they will
engage in this kind of trade — like in any activity — only if it is profitable for them to do
so. In the often quoted passages from the Principles, why this should be the case is not clear.

At first sight, and in real terms i.e., on the basis of the theory of value, it is obvious that
Portuguese commodities can be sold profitably in England, but the possibility of selling an
English good in Portugal is far from evident. Of course we can imagine some trader
activities with arbitrages on commodities. Let’s suppose for a while that (a) each country
produces both commodities; (b) these commodities have a domestic equilibrium price ratio
determined by their cost of production in terms of units of labour; (c) and finally constant
returns to scale prevail with the consequence that the domestic individual values for,
respectively, one unit of wine or cloth are, in Portugal, of $\frac{80}{x}$ and $\frac{90}{y}$; and, in England, of
$\frac{120}{x}$ and $\frac{100}{y}$. Now it happens that it is profitable for a trader to sell English cloth in
Portugal at the local Portuguese price (labour value) in order to buy there Portuguese wine:
even if the cloth is sold at a lower labour value than in England, the quantity of wine that
can be obtained in Portugal for this cloth is greater than the quantity that could have been
obtained in England for the same cloth. This wine being then exported to England and
sold there, the arbitrage will bring a positive profit in terms of cloth. Note that this result
could not have been reached, had we started the analysis with the exportation of English
wine. An equivalent result however could be attained if we start the story with Portuguese
wine being directly sold in England, exchanged there for cloth, etc.

But as we shall see below this kind of complicated solution — why should the trader
export cloth in order to buy wine instead of buying wine directly? — conducted in real
terms does not respect Ricardo’s hypotheses and argument. Yet it happens that Ricardo

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7 A set of hypotheses equivalent, in a sense, to the usual ones when the countries are at first
considered in autarky.
himself did consider this sort of mechanism in one of his notes to Malthus’s *Principles of Political Economy* — in another context it is true:

A merchant is possessed of a bale of cotton goods, which he exports, and gets in exchange a pipe and a quarter of wine, he sells the pipe in England for a bale of cotton goods, and retains the quarter pipe for his own profit, and disposes of it as he may think best. He discovers a new market, and recommences his operation, and for his bale of cotton goods he gets not only a pipe and a quarter of wine, but also 100 lbs. of indigo. If he can still exchange a pipe of wine for a bale of cotton goods at home, his profits will have increased; — instead of a quarter of a pipe of wine, as before, he will get that and the indigo besides. But suppose, that as well as four fifths of his wine, he must also give four fifths of the indigo for the bale of cotton goods, his profits indeed will have fallen to the general level of profits, at which I suppose they were in the first instance. (1820: 418-419)

This is however a reasoning based on a macro-analysis and conducted in real terms that J. S. Mill adopted — thus founding the well established tradition in international trade theory — and which induced him to think that, on the one hand, there was a problem with sharing out the gains from trade and, on the other hand, he had to introduce demand into the picture because, on the sole basis of the theory of value and with constant returns to scale, it was impossible to see how domestic prices could change and how the arbitrages could stop.

It is also to be noted that, in Ricardo, the ambiguity of some developments conducted at the macro level is also to be found in his monetary analysis. It is true however that, there, he often insisted on the fact that economic phenomena have to be explained on the basis of the individual choices of agents freely acting in markets with an unique purpose: profitability. “It is self-interest which regulates all the speculations of trade” (1810-1811a: 102) and, for example, whenever there is an outflow of specie “a very little reflection will convince us that it is our choice, and not our necessity, that sends it abroad” (1810-1811a: 55). “It resolves itself entirely into a question of interest” (1810-1811a: 62). In his *Reply to Bosanquet*, Ricardo clearly states that the motivations of agents are essential and warns against the fallacies of aggregate analysis:

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8 Marcuzzo and Rosselli (1991) have been among the few commentators to insist on this point in this specific context and to develop it systematically from the monetary point of view.
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

Mr. Bosanquet speaks as if the nation collectively, as one body, imported corn and exported gold, and that it was compelled by hunger so to do, not reflecting that the importation of corn, even under the case supposed, is the act of individuals, and governed by the same motives as all other branches of trade. What is the degree of compulsion which is employed to make us receive corn from our enemy? I suppose no other than the want of that commodity which makes it an advantageous article of import; but if it be a voluntary, as it most certainly is, and not a compulsory bargain between the two nations, I do still maintain that gold would not, even if famine raged amongst us, be given to France in exchange for corn, unless the exportation of gold was attended with advantage to the exporter. (1811: 207-208)

Yet, in his writings, many passages can be found which give the impression that Ricardo himself was speaking “as if the nation collectively, as one body” were the decision-maker. At the same period of his Reply to Bosanquet for example he wrote to Malthus that he supposes that “nations truly understood their own interest” and “in their commercial transactions are so alive to their advantage and profit […] that in point of fact money never does move but when it is advantageous both to the country which sends and the country that receives that it should do so.” (to Malthus, 22 October 1811, VI: 63-64) And he added: “The first point to be considered is, what is the interest of countries in the case supposed? The second what is their practise?” (ibid.: 64) It is thud no wonder that commentators could have been misled by such ambiguities.

The (in)validity of the labour theory of value

A second analytical difficulty refers to a striking statement, which certainly forms one of the most celebrated sentences of Chapter 7 of the Principles. Here Ricardo stresses the fact that, in international exchanges, the theory of labour value that determines the equilibrium exchange ratios between any two commodities is no longer valid.

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. (1817-1821: 133)

That is to say, in the above case of the exchange between Portugal and England:

The quantity of wine which she [Portugal] 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. (1817-1821: 134-135)
Then comes an explanation for such an unusual situation. This is due, Ricardo writes, to the relative international immobility of capital and labour, because of a “fancied or real insecurity of capital” abroad and a “natural disinclination which every man has to quit the country of his birth and connexions” (1817-1821: 136).

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 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. (1817-1821: 135-136)

It seems that Ricardo’s statement and explanation have been accepted as obvious. To me however they are problematic: why should the relative immobility of “capital and population” (1817-1821: 134) imply that the theory of labour value is no longer valid for international exchanges?

This point refers to the theory of natural prices. Up to this point, and especially in his famous example, Ricardo made use of the theory of labour value. But in order to explain his statement he now switches to his alternative theory of natural prices based on the principle of the uniformity of the rate of profit: the so-called prices of production. In this perspective, the relative immobility of capital between countries implies that the rates of profit, while uniform — all things being equal — in a single country, cannot be equalized between different nations. What happens between Yorkshire and London cannot take place between England and “Holland, or Spain, or Russia”.

In one and the same country, profits are, generally speaking, always on the same level […]. 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

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9 In Chapter 4, “On Natural and Market Price”, referring to the prices of commodities, he wrote of “their natural price, the quantity of labour necessary to their production” (90; see also 89).

10 The definition of which was specified by Ricardo in the same Chapter 4 when he wrote: “all commodities are at their natural price, and consequently […] the profits of capital in all employments are exactly at the same rate” (90).
and population would necessarily move from England to Holland, or Spain, or Russia, where profits might be higher. (1817-1821: 134)

But why should the immobility of capital explain the fact that, in international trade, commodities do not exchange according to the respective quantities of labour necessary to their production? All that the argument proves is that their respective prices of production will not entail the same rate of profit. But even supposing an internationally uniform rate of profit, commodities would not have been exchanged according to their labour values because we know that, except in very special cases, these two theories of labour value and production prices imply different equilibrium exchange ratios.\(^\text{11}\)

As a consequence the hypothesis of an international immobility of the factors of production is unable to justify that “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” (1817-1821: 133) — an explanation of this statement does indeed exist but has another rationale as will be shown below. When reading Ricardo’s developments, then, we must always remember the presence, in the Principles, of two theories of natural prices — even if Ricardo thought that the first was a good approximation to the second — and carefully distinguish the results according to which theory is supporting them. This presence and the ambiguity it is susceptible to generate is well illustrated by the following sentence (my italics) quoted by most commentators:\(^\text{12}\)

[...], if capital freely flowed towards those countries where it could be most profitably employed, there could be no difference in the rate of profit, and no other

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\(^{11}\) We also know that Ricardo thought that the labour theory of value was basically not contradictory with the principle of the uniformity of the rate of profit and that, after the first edition of the Principles, he tried unsuccessfully to deal with this discrepancy in the successive editions till the 1823 manuscripts “Absolute Value and Exchangeable Value”. It is also to be noted that, contrary to Chapter 1 on value, Chapter 7 on foreign trade remained basically unchanged.

12 See for example one of the first commentators, William Whewell. In his Mathematical exposition of some of the leading doctrines in Mr. Ricardo’s Principles of Political Economy and Taxation, he wrote: “This is a portion of Political Economy on which the postulates which have hitherto been the basis of our reasoning have no bearing. The proportionality of the exchangeable value to the cost or labour of production no longer obtains, when the labour of different countries is concerned [...]. Nor can we assume the equality of profits in different countries. The difficulty with which labour and capital travel from one country to another, is a sufficient obstacle in the way of the establishment of such a uniformity of the value of labour [sic], and of the rate of profits.” (Whewell 1831: 31)
3. International and domestic trade: which difference, if any?

We must thus reconsider Ricardo’s ideas on international trade from a new perspective. Is there really any remarkable difference between domestic and international trade — and which one? Why do agents engage in international trade — on which principles and with which profitability? Do international prices differ from domestic prices? What kind of specialisation does international trade provoke? These and others are the questions that are to be answered. In the following, the economy is first considered deprived of all kind of tax, tariff, subsidy etc.: their effect on international trade would have to be analysed afterwards. Unless otherwise stated, the monetary system is the gold standard and money consists in gold coins or in banknotes convertible in gold on demand. Finally, like Ricardo, we shall basically argue in terms of labour values, and suppose that the reference, if any, to a normal and uniform rate of profit in a country does not change the conclusions: this simplifying assumption would have of course to be dropped when re-introducing taxes, etc., into the picture. Let us start with the first question: is there any meaningful difference between domestic and international trade?

The case of the immobility of capital and labour

Even if it does not explain the problem of the international exchange ratios between traded commodities, the hypothesis of the immobility of capital and labour must of course be considered seriously: it forms an important difference between international and domestic trades. But on the whole its incidence seems to be limited to a certain impediment in achieving the best division of labour. The proof is a contrario. Were capital and labour internationally mobile, Ricardo remarks, then, in the case of the exchange of cloth and wine between England and Portugal, it would be advantageous to the English cloth
producers to stop producing at all these commodities in England and to invest in Portugal.¹³

It would undoubtedly be advantageous to the capitalists of England [...] that under such circumstances, the wine and the cloth should both be made in Portugal, and therefore that the capital and labour of England employed in making cloth, should be removed to Portugal for that purpose. (1817-1821: 136)

But why it is so is not clear. No doubt such a migration of capital would be advantageous to all consumers, in terms of use values, because of a better allocation of resources. But this is less obvious for what concerns the English capitalists: their advantage cannot be in terms of the rate of profit because the international mobility of capital would generate a uniform rate in England and Portugal. Supposing uniform wages, the advantage could be a savings in capital: to produce the same amount of cloth they must invest less capital in Portugal than in England. But can such a savings be an objective for entrepreneurs who only think in terms of profitability?

It is however worth noting that Ricardo, especially in Chapter 19 of the *Principles*, also examines the problem of the possible domestic immobility of some factor during periods of transition between two equilibria. There he acknowledges that the transfer of factors of productions between sectors — necessary for the gravitation of market prices around natural prices — could sometimes be difficult to implement and takes time. Capital, for example, cannot be withdrawn quickly from a branch of production where it is invested in machinery, etc. Though the problem here is transitory and not structural like between countries, some consequences on international trade can arise. Consider for example a capital invested in land.

It has [...] been said, that capital cannot be withdrawn from the land; that it

¹³ In his *Notes on Bentham*, Ricardo contemplated the possibility of an emigration of capital, a case that, in his view, could have entailed damaging consequences on the domestic accumulation of capital and thus an opposition of interests between individual capitalists and the nation. “It can never be allowed that the emigration of Capital can be beneficial to a state. A loss of capital may immediately change an increasing state to a stationary or retrograde state. A nation is only advancing whilst it accumulates capital. Great Britain is far distant from the point where capital can no longer be advantageously accumulated. I do not mean to deny that individual capitalists will be benefited by emigration in many cases,—but England even if she received the revenues from the Capital employed in other countries would be a real sufferer.” (1810-1811b: 274)
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

takes the form of expenses, which cannot be recovered, such as manuring, fencing, draining, &c., which are necessarily inseparable from the land. This is in some degree true; but that capital which consists of cattle, sheep, hay and corn ricks, carts, &c. may be withdrawn; and it always becomes a matter of calculation, whether these shall continue to be employed on the land, notwithstanding the low price of corn, or whether they shall be sold, and their value transferred to another employment. (1817-1821: 268-269)

Ricardo then imagines a situation in which capital cannot at all be withdrawn from land. The farmer decides to continue the production even if, owing to the circumstances, the price of corn is very low and will not assure the profits he would get in a normal situation: “for it could not be his interest to produce less, and if he did not so employ his capital, he would obtain from it no return whatever” (1817-1821: 269). The farmer is even decided to sell his corn at a lower price than it is usually imported. It is thus evident that corn will stop being imported.

However low the price of corn might fall; if capital could not be removed from the land, and the demand did not increase, no importation would take place; for the same quantity as before would be produced at home. (1817-1821: 270)

Thus foreign trade may sometimes be affected by a relative domestic immobility of the factors of production. But this case is exceptional and moreover temporary.

Foreign trade: neither superior nor inferior to domestic trade

Next, contrary to Smith and Say who thought they could speak of a sort of hierarchy between international and domestic trade, it is remarkable that Ricardo insists on the similarities between the two kinds of activities. In the same Chapter 7 of the Principles he stresses the fact that “the remarks which have been made respecting foreign trade, apply equally to home trade” (1817-1821: 133). It is true that what is at stake here is the alleged influence of trade on profits.

The rate of profits is never increased by a better distribution of labour, by the invention of machinery, by the establishment of roads and canals, or by any means of abridging labour either in the manufacture or in the conveyance of goods. These are causes which operate on price, and never fail to be highly beneficial to consumers; since they enable them with the same labour, or with the value of the produce of the same labour, to obtain in exchange a greater quantity of the commodity to which the improvement is applied; but they have
no effect whatever on profit. (1817-1821: 133)

In various places also Ricardo asserts that foreign trade is neither superior nor inferior to domestic trade as regards the basic variables of the economic activity in a country. In Chapter 22 of the *Principles* he criticizes Jean-Baptiste Say who claimed in his *Traité d’économie politique* that foreign trade is more interesting, from the point of view of the State, than domestic trade. In the domestic trade, Says writes, the profits made by the merchants are no real addition to the nominal wealth. In Ricardo’s words: “In the trade between individuals of the same country, there is no other gain but the value of an utility produced; que la valeur d’une utilité produite.” Ricardo refutes this idea: “I cannot see the distinction here made between the profits of the home and foreign trade. The object of all trade is to increase productions.” (1817-1821: 318-319)

In the 7th Chap. of this work, I have endeavoured to shew that all trade, whether foreign or domestic, is beneficial, by increasing the quantity, and not by increasing the value of productions. We shall have no greater value, whether we carry on the most beneficial home and foreign trade, or in consequence of being fettered by prohibitory laws, we are obliged to content ourselves with the least advantageous. The rate of profits, and the value produced, will be the same. The advantage always resolves itself into that which M. Say appears to confine to the home trade; in both cases there is no other gain but that of the value of an utilité produite. (1817-1821: 319-320)

While foreign trade is not superior to domestic trade as regards profits, it is also not inferior as far as the level of employment is concerned. This question is broached when in Chapter 26 of the *Principles* Ricardo objects to an assertion by Adam Smith that a capital employed in foreign trade replaces two distinct domestic capitals and thus lowers the level of employment at home. “I cannot admit that there is any difference”, Ricardo writes, “in the quantity of labour employed by a capital engaged in the home trade, and an equal capital engaged in the foreign trade” (1817-1821: 350). Suppose, he explains, that Scotland and England each employ a capital of a thousand pounds to produce linen and silk respectively that they exchange with each other. The total amount of the capital employed will be of two thousand pounds “and a proportional quantity of labour”. What happens if Scotland and England realize that they can more advantageously trade with some foreign countries like France and Germany? Nothing as regards the capital invested at home and the amount of labour employed

Suppose now, that England discovers, that she can import more linen from
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

Germany, for the silks which she before exported to Scotland, and that Scotland discovers that she can obtain more silks from France in return for her linen, than she before obtained from England, —will not England and Scotland immediately cease trading with each other, and will not the home trade of consumption be changed for a foreign trade of consumption? But although two additional capitals will enter into this trade, the capital of Germany and that of France, will not the same amount of Scotch and of English capital continue to be employed, and will it not give motion to the same quantity of industry as when it was engaged in the home trade? (1817-1821: 351)

The principle of the division of labour

All these remarks are but the consequences of a basic principle: the nature of trade and specialization is the same in all activities, be they domestic or international. This is just an aspect of the principle of the division of labour. In Chapter 7 of the Principles, the case of Portugal that has, in modern parlance, an absolute advantage in the production of both wine or cloth, is paralleled with the domestic situation of two craftsmen, among whom one has a superior skill in producing both shoes and hats — an example found in the Wealth of Nations. The result is the same: specialization in shoes or hats will benefit both of them — even to the man who has an absolute superiority in the production of both commodities.

[...] 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? (1817-1821: 136n)

The same principle is again referred to when in Chapter 25 Ricardo considers another similarity between domestic and foreign trade. Should a colony be obliged to trade with the colonizing country only, as often happens for some goods? No, because in most cases this obligation will prevent a better allocation of capital. This case is the same as if a consumer, in domestic trade, were obliged to buy in a particular shop.

As it is disadvantageous to a single consumer to be restricted in his dealings to
one particular shop, so is it disadvantageous for a nation of consumers to be obliged to purchase of one particular country. If the shop or the country afforded the goods required the cheapest, they would be secure of selling them without any such exclusive privilege; and if they did not sell cheaper, the general interest would require that they should not be encouraged to continue a trade which they could not carry on at an equal advantage with others. The shop, or the selling country, might lose by the change of employments, but the general benefit is never so fully secured, as by the most productive distribution of the general capital; that is to say, by an universally free trade. (1817-1821: 343)

**All exchange is a monetary exchange:**

a unique principle for ‘all trade, whether foreign or domestic’

Notwithstanding these fundamental points, one element — of utmost importance — is still missing in the picture of the similarities between domestic and international trade: commerce is not barter. Among all the sales and purchases that are made in markets, and except some very peculiar cases, each transaction is unique and in monetary terms. This is an aspect that Ricardo expresses well when he writes: “Every transaction in commerce is an independent transaction” (1817-1821: 138).

Whilst a merchant can buy cloth in England for 45£ and sell it with the usual profit in Portugal, he will continue to export it from England. His business is simply to purchase English cloth, and to pay for it by a bill of exchange, which he purchases with Portuguese money. It is to him of no importance what becomes of this money: he has discharged his debt by the remittance of the bill. (1817-1821: 138)

Of course specific trading activities, with continuous arbitrages, deal with these bills of exchange at the international level, and things are more complex than for domestic trade. But all this fundamentally means that, in analyzing the operations of commerce, we have to take into account the money prices of the commodities. Money prices, not labour values, determine the agents to engage in trade. And only a comparison between money prices — the price at which a merchant buys commodities and the price at which he hopes to sell them — determines the profitability of this activity. 14

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14 Transportation costs included. As Ricardo wrote to Malthus: “Your observation is just concerning the extra expences attending the exportation of bulky commodities,—but in all these discussions we must suppose these expences to make part of the price of the commodity;—our
buys or sells commodities with a profit is of no importance: it could be anywhere at home or abroad. In this perspective, domestic trade and foreign trade are based on the same principle — be the transactions, to paraphrase Ricardo, to take place between England and “Holland, or Spain, or Russia”, or between London and Yorkshire:

 [...] cloth cannot be imported into Portugal, unless it sell there for more gold than it cost in the country from which it was imported; and wine cannot be imported into England, unless it will sell for more there than it cost in Portugal. (1817-1821: 137)

Hence the general rule for international trade:

The motive which determines us to import a commodity, is the discovery of its relative cheapness abroad: it is the comparison of its price abroad with its price at home. (1817-1821: 170)

Now the principle of comparative advantage can of course be established on this basis. Let \( p_w \) and \( p_{w*} \) be the gold price of wine in England and in Portugal respectively, \( p_c \) and \( p_{c*} \) being the respective price of cloth in these countries. Portugal exports wine and imports cloth — and England exports cloth and imports wine — if \( p_w > p_{w*} \) and \( p_c < p_{c*} \), hence if:

\[
\frac{p_{w*}}{p_{c*}} < \frac{p_w}{p_c}
\]

But what about the analysis of the “gains from trade”? The above rule, which tells us how the economic agents behave and why they will engage in foreign trade, is to be distinguished carefully from the evaluation of the benefits the different countries get from international exchanges: a calculation which, as stated before, results from another kind of comparison — and which is moreover also valid for domestic trade. The benefits got by the country, the “gains from trade”, are not the cause but the unintended consequence of actions that are taken by economic agents on the basis of a different motive. The fact that Ricardo sometimes mixes the two analyses might have misled readers. A good example of this apparent confusion can be found in the paragraph which contains the general rule just quoted above. There the sentence stating the rule is immediately followed by a reference to the gains from trade: “If a country exports hats, and imports cloth, it does so because it

comparison is made on the prices at which the importer could afford to sell them and those prices necessarily include expenses of every sort.” (18 June 1811, VI: 27-28).
can obtain more cloth by making hats, and exchanging them for cloth, than if it made the cloth itself” (1817-1821: 170). Ricardo should not have written: “it does so because…”.

“My speaking is like my writing too much compressed.—I am too apt to crowd a great deal of difficult matter into so short a space as to be incomprehensible to the generality of readers.” (Ricardo to Malthus, 24 December 1815, VI: 335)

**Two sides of the same coin**

In this perspective, it is now clear that, in Ricardo’s approach, monetary theory and international trade theory are two sides of one and the same coin and cannot be analyzed independently of each other. In a monetary regime in which gold is the standard, the precious metal is also produced according to the general rules competition, according to the profitability of the activity. It has a natural value — determined like the value of any other commodity by its real cost of production —, a market value, a (money) price, and is imported or exported exactly like the other commodities. As Ricardo states in the Appendix of *The High Price of Bullion*:

> It is particularly worthy of observation that so deep-rooted is the prejudice which considers coin and bullion as things essentially differing in all their operations from other commodities, that writers greatly enlightened upon the general truth of political economy seldom fail […] to argue upon the subject of money, and the laws which regulate its export and import, as quite distinct and different from those which regulate the export and import of other commodities. (1810-1811a: 103-104)

But, Ricardo asserts, this contradictory attitude of most economists is mistaken and the source of errors in monetary theory and policy. To Malthus who objected that many authors “in their zeal to correct the absurd notions of the mercantile classes about the balance of trade have overlooked the real differences that exist between the precious metals [as money] and other commodities” (Malthus to Ricardo, 16 June 1811, in Ricardo 1951-1973, VI: 21), Ricardo explained his point once again:

> There does not appear to me to be any substantial difference between bullion and any other commodity, as far as regards the regulation of its value, and the laws which determine its exportation or importation. It is true that bullion, besides being a commodity useful in the arts, has been adopted universally as a measure of value, and a medium of exchange; but it has not on that account been taken out of the list of commodities. (to Malthus, 18 June 1811, ibid.: 24)
In a monetary regime based on gold, each agent is “a dealer in bullion” and “though in the language of commercial men the sellers of money are in all cases called purchasers, it is not on that account less true that they are sellers of one commodity and purchasers of another.” (ibid.: 24)

The flows of gold between countries are thus to be analyzed like any other flow of commodities and proceed from the same motivation: profitability. If “coin or bullion” leave a country, this is because it is profitable to individuals to export them: they are simply brought from markets where they are cheap to those where they are dear. This is the reason why Ricardo does not like the phrase “unfavourable balance of trade” to depict this exportation of specie or bullion. It conveys the idea that bullion is different from other commodities and is just something universally accepted and sent abroad to settle a balance. But for Ricardo an “unfavourable balance of trade” is not the cause of the outflow of gold, but the consequence, and bullion is flowing out whenever money becomes “redundant”, “superabundant” in the country — because bullion is the “cheapest” commodity at home.

This is the reason why the principles which regulate international trade are part and parcel of monetary theory: all the international flows of commodities, including precious metals, must be explained on the same basis. To Malthus who contests the use of the words “redundant” or “superabundant” when speaking of money and stresses the fact that the exportation of bullion is always necessary to pay a debt abroad, Ricardo explains that this way of reasoning is not correct. Why is there a “debt”, what is its origin?

You appear to me not sufficiently to consider the circumstances which induce one country to contract a debt to another […] you always suppose the debt already contracted, forgetting that I uniformly contend that it is the relative state of the currency which is the motive to the contract itself. The corn, I say, will not be bought unless money be relatively redundant; you answer me by supposing it already bought and the question to be only concerning the payment. (to Malthus, 18 June 1811, ibid.: 26-27)

15 See for example the following statements. “But exporting of bullion is synonymous with an unfavourable balance of trade. From whatever cause an exportation of bullion, in exchange for commodities, may proceed, it is called (I think very incorrectly) an unfavourable balance of trade.” (1810-1811a: 64n) “[…] we have already seen that an unfavourable trade, if such be an accurate term, is limited in its effects on the exchange.” (1810-1811a: 83)
The explanations of the international flows of corn and gold are identical. In a two-commodities model, corn and gold are respectively imported and exported because they are respectively the cheapest commodities abroad and at home. And if, at home, a third commodity is cheaper than gold, then this commodity will be exported instead of bullion.

A merchant will not contract a debt for corn to a foreign country unless he is fully convinced that he shall obtain for that corn more money than he contracts to pay for it, and if the commerce of the two countries were limited to these transactions it would as satisfactorily prove to me that money was redundant in one country as that corn was redundant in the other. […] If indeed sugar were exported by some other merchant the debt for corn would be paid without the exportation of money [bullion] and I should say that sugar was the redundant commodity… (ibid.: 27)

It is finally to be noted that this conception of the flows of money between two locations is not specific to international flows: it is Ricardo’s opinion that the same mechanism is at work between two provinces in a same country, between London and Yorkshire for example to quote again this celebrated example. While this aspect remained relatively unnoticed compared to the international aspects that were heavily commented and the subject of the public debate, the economic logic is identical. He clearly develops this point in *The High Price of Bullion* (1810-1811a: 87-88) when comparing the value of the Bank of England notes with those of the country banks, and in a detailed letter to Phillip Francis (24 April 1810, VI: 11-13).

4. Money and foreign trade

The fact that the prices to be considered are the money prices is thus of material importance for Ricardo’s theory of international trade. How are they determined and how do they change? Is it possible to define a position of equilibrium in international trade? How to define a destabilizing shock and analyze its impact on the equilibrium? What is the impact of the monetary regime on the flows of exchanges? What is the degree of specialization of the different countries? These and some other points are the subjects of this and the next sections: and to deal with them requires that we first go deeper into the links with money.

In this perspective, the reader must again be aware of some particular difficulties presented by Ricardo’s texts. The main one is certainly the ambiguity generated by the different
meanings of the term “money” — which sometimes refers to the currency and sometimes to the standard. In the following pages, and whenever it is necessary, the specific meaning of the term — in the quotations excerpted from Ricardo’s writings — is suggested into square brackets.

Another difficulty arises from the vocabulary extensively used by Ricardo in the *Principles*, especially as regards foreign trade. There, as compared with the terms and the phrases employed in his former writings — those of the bullionist controversy in particular — he appears to reason in a way he wanted to avoid before: i.e., in terms of balance of trade, gold being seemingly considered apart from the other commodities. However, the questioned vocabulary is also sporadically present in these earlier writings. Thus, in spite of the generalization of this more conventional way of speaking in the *Principles*, the hypothesis is made here that Ricardo’s basic approach of money and foreign trade remained unchanged.

**Against ‘the extreme folly of Lord Stanhope’**

As regards the determination of prices, and to put it briefly, two main points must be considered here.

(a) In the first place, the monetary regime is based on the choice of a standard: 16 gold, and on the definition of the currency — the gold definition of the monetary unit of account i.e., the official parity of money or mint price of gold. In a gold standard, the circulating money is essentially made of gold coins and banknotes convertible on demand into coins, and bullion is freely bought and sold at the mint at its official price. It is also freely imported and exported. The distinction between the standard and the currency is important because, when money prices change, it allows to distinguish clearly between the variations due to a change of the value of the standard and those originating in the value of the currency in terms of the standard.

When two commodities vary in relative value, it is impossible with certainty to

16 On the importance of the standard of money in Ricardo’s theory and on the necessity to distinguish it from the currency, I basically agree with Marcuzzo and Rosselli (1991, 1994).
say, whether the one rises, or the other falls; so that, if we adopted a currency without a standard, there is no degree of depreciation to which it might not be carried. The depreciation could not admit of proof, as it might always be affirmed that commodities had risen in value, and that money [currency] had not fallen. (Ricardo 1816: 61-62)

The first kind of variation — that in the value of the standard — is normal and unavoidable since it is impossible to find a standard which would be totally invariable in value. The second however could and should be avoided but how it can be depends on the convertibility or inconvertibility of the currency into the standard (below). As Ricardo wrote to James Mill:

I should have been glad if you had shewn the extreme folly of Lord Stanhope’s observation, that it is only in times of barbarism that gold can be required as the standard of currency,—and the total impossibility of regulating the value of a paper currency without some standard of reference. (26 September 1811, VI: 54)

(b) In the second place, in supplement to the distinction between the standard and the currency, Ricardo’s approach to money prices systematically relies on two basic mechanisms.\(^\text{17}\)

The first is a quantitative relationship between prices and the quantity of money: all things being equal, the money prices of commodities depend on the quantity of currency circulating in the country.\(^\text{18}\) As Ricardo put it succinctly in his Notes on Bentham: “May we not […] put the mass of commodities of all sorts on one side of the line,—and the amount of money multiplied by the rapidity of its circulation on the other. Is not this in all cases the regulator of prices?” (1810-1811b: 311). With an unchanged value of the standard and a constant velocity of money, as the value of the currency in terms of the standard depends on its quantity compared to the quantity that would be necessary if the whole circulating medium were made of gold, this value will fall or rise with the increase or decrease of the quantity of money in circulation, and the money prices of commodities will rise or fall accordingly.

\(^{17}\) In the following pages, I take for granted the working of these two mechanism, and the results in terms of comparative statics. I shall discuss them in another paper.

\(^{18}\) “That commodities would rise or fall in price, in proportion to the increase or diminution of money, I assume as a fact which is incontrovertible” (1811: 193n).
The second mechanism is in most cases a Humean-like specie-flow mechanism between countries — extended, as we noted above, to the relations between the provinces of a single State. All things being equal, the inflow/outflow of gold in a country will at the same time lower/increase the market value of the standard and increase/diminish the quantity of currency, thus leaving unchanged the money price of the standard and raising/lowering the money prices of the other commodities.

Finally the nature of the monetary regime has to be brought into the picture. In “the sound state of a currency” i.e., in a regime of convertibility, the value of the currency in terms of gold and the exchange rate cannot vary much: automatic market forces always maintain the price of gold around its mint price — a difference being always possible whenever a law prohibits “melting gold coin into bullion and exporting it” — and the exchange rate within the gold points. If, for example, more banknotes were issued all other things being equal, money prices raised and the value of the currency lowered, and finally “coin or bullion” exported, bringing back the quantity of money to its natural level.

Thus then it appears that the currency of one country can never for any length of time be much more valuable, as far as equal quantities of the precious metals are concerned, than that of another. (1810-1811a: 56)

With a circulation made of inconvertible paper money, the story is obviously different. The value of the currency in terms of the standard is no longer automatically regulated, the price of gold can differ from its mint price and the exchange rate vary beyond the gold points. Hence the rule to maintain the circulation in proper limits: to keep an eye on the price of gold and the exchange rate, maintaining them respectively, through variations of the quantity of notes, to the mint price and within the gold points.

The issuers of paper money should regulate their issues solely by the price of bullion, and never by the quantity of their paper in circulation. The quantity can never be too great nor too little, while it preserves the same value as the standard. (Ricardo 1816: 64)

In the end “the only use of a standard is to regulate the quantity, and by the quantity the value of the currency” (Ricardo 1816: 59): without such a standard a currency “would be exposed to all the fluctuations to which the ignorance or the interests of the issuers might subject it” (ibid.).
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

Whatever the monetary regime, whether based on a convertible or inconvertible currency, the natural level of the quantity of money in a country will thus be reached when the market price of the standard equals its mint price — and the exchange rate at par. When this is the case the currency can get abroad the same quantity of gold than at home. The global quantity of gold is then distributed among the trading countries according to their respective levels of activities. Once again, what is valid on the international level in relation to international trade is also valid within a country in relation to domestic trade. Economic laws are the same everywhere.

The money of a particular country is divided amongst its different provinces by the same rules as the money of the world is divided amongst the different nations of which it is composed. Each district will retain in its circulation such a proportionate share of the currency of the country, as its trade, and consequently its payments, may require, compared to the trade of the whole. (1810-1811a: 87)

Trade and the value of the standard

The above considerations are essential to understand Ricardo’s analysis of international trade. The difference presented by his developments on this question and those he put forward in his monetary analysis from the time of the Bullionist controversy are only superficial: the perspectives are different but the underlying principles are the same. During the monetary controversy, the problem was to grasp the causes and consequences of a variation in the quantity of currency in circulation, all things being equal (especially the value of the standard). In international trade theory, the focus is put on the fluctuations of the value of the standard, together with the parallel induced changes in the volume of currency.

But how is this value to be understood in the present context? Ricardo constantly warns his readers to distinguish carefully the value of bullion from its price. “The price of a commodity is its exchangeable value in money only. The value of a commodity is estimated by the quantity of other things generally for which it will exchange” (1816: 60). The
mistake made by many authors — Henry Thornton for example,19 but also James Mill — lies precisely in a “misconception of the difference between price and value” (ibid.). To James Mill who asserted: “The value of the precious metals throughout the globe is uniform”, Ricardo replied:

I should have agreed with you if you had said “price” instead of “value”. If a bill on London for £100 will sell in Hamburgh for £98 or as much of the money of Hamburgh as is equal to the bullion in £98 of our’s then I should say that the price of bullion differed 2 pc.t in the two countries. But when we speak of the value of bullion we mean a very different thing—we mean, I apprehend, to measure it by some other commodity,—corn, coffee, hardware or any amongst the thousands of commodities which may be exported. (26 September 1811, in Ricardo 1951-1973, VI: 54-55)

The “value of gold” then expresses its relative value in terms of such or such commodity. The phrase “purchasing power of gold”, sometimes used by commentators in this context, is inadequate because it conveys the idea of a measure of the value of bullion against all other commodities taken as a whole. Not only would it be a meaningless conception in the absence of index numbers, but Ricardo explicitly and constantly rejected it.20 As he states in the Principles — he had already analyzed a similar problem in his Proposals (1816: 59-60) — the relative value of gold, as of any other good, depends on the commodities chosen for the comparison and there is no way of escaping this difficulty.

When we speak of the high or low value of gold, silver, or any other commodity in different countries, we should always mention some medium in which we are estimating them, or no idea can be attached to the proposition. Thus, when gold is said to be dearer in England than in Spain, if no commodity is mentioned, what notion does the assertion convey? If corn, olives, oil, wine, and wool, be at a cheaper price in Spain than in England; estimated in those commodities, gold is dearer in Spain. If, again, hardware, sugar, cloth, &c. be at a lower price in England than in Spain, then, estimated in those commodities, gold is dearer in England. Thus gold appears dearer or

19 “The error of this [Thornton’s] reasoning proceeds from not distinguishing between an increase in the value of gold, and an increase in its money price” (Ricardo 1810-1811a: 60).
20 Ricardo however, like Smith, speaks sometimes of “money’s worth”, when referring to the real wage: “though the wages of the workman are commonly paid to him in money, his real revenue, like that of all other men, consists not in money, but in money’s worth; not in the metal pieces, but what can be got for them” (1810-1811a: 89; see also 1810-1811b: 329). In some examples, he also reasons quite on a general level: “If in France an ounce of gold were more valuable than in England, and would therefore in France purchase more of any commodity common to both countries…” (1810-1811a: 57).
cheaper in Spain, as the fancy of the observer may fix on the medium by which he estimates its value. (1817-1821: 376-377)

Now the difference presented by the value of gold in different countries, Ricardo writes (1817-1821: 143-146), depends on two causes. The first is the distance of the country from the gold mines: it is by far the main factor when the different countries are at an early stage of development (1817-1821: 144). The second is the state of the balance of trade that chiefly depends on the comparative skill of the home producers vis-à-vis their foreign competitors (1817-1821: 146). This second reason is distinctly dominating at an advanced stage of development (1817-1821: 144). These two causes however do not play exactly the same role. The first is clearly determining the difference presented by the natural value of gold in a country: except in case of some revolution in the transport industry which anyway will affect all countries, this cause is stable in the short run. But the second, through variations in the quantity of gold available in a country, acts upon its market value: depending on the flows of international trade, it affects the various countries in very different ways.

In the former part of this work [the first six chapters of the Principles], we have assumed [...] that money [gold] always continued of the same value; we are now endeavouring to shew that besides the ordinary variations in the value of money [gold] [...] there are also partial variations to which money [gold] is subject in particular countries; and in fact, that the value of money [gold] is never the same in any two countries. (1817-1821: 142-143)

Hence three consequences. (a) In the first place, it is these “partial variations”, the fluctuations in the market value of gold, which are important to international trade. The flows of foreign trade can change the market value of the standard and the money prices of commodities. Importations and exportations, depending on these prices, can in turn be modified. In the end the fluctuations in the market value of gold and in money prices, Ricardo writes, are the great regulator of foreign trade.

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21 It is true that Ricardo specifies that the value of gold “is never the same in any two countries depending as it does on relative taxation, on manufacturing skill, on the advantages of climate, natural productions, and many other causes”. But, two pages further, referring to the distance from the mines and the state of the balance of trade, he writes: “These I believe to be the only two causes which regulate the comparative value of money in the different countries of the world; for although taxation occasions a disturbance of the equilibrium of money, it does so by depriving the country in which it is imposed of some of the advantages attending skill, industry, and climate” (1817-1821: 145) — thus referring again to the state of the balance of trade.
Foreign trade […] can only be regulated by altering the natural price, not the
natural value, at which commodities can be produced in those countries, and
that is effected by altering the distribution of the precious metals. (1817-1821:
343)

(b) In the second place, it is possible to define a state of equilibrium. It is the point Ricardo
calls “a trade of barter”. The use of the word “barter” is of course surprising — and might
have misled some readers — because we know that, for Ricardo, “every transaction in
commerce is an independent transaction” and thus a monetary exchange. Another
occurrence of the phrase “trade of barter” can be found on the same page 137, two on
page 140, on page 142, etc., and in some other chapters like in Chapter 16 where Ricardo
writes of “a trade of barter, which all commerce, both foreign and domestic, really is”
(1817-1821: 220). However the contexts of these occurrences unambiguously indicate how
this is to be understood. It is the situation when the price total of exports balance the price
total of imports — gold being here considered apart from the other commodities — and
bullion stops being imported or exported, the circulation of the goods being carried out by
means of the circulation of bills of exchange.

While the relative situation of countries continued unaltered, they might have
abundant commerce with each other, but their exports and imports would on
the whole be equal. England might possibly import more goods from, than she
would export to, France, but she would in consequence export more to some
other country, and France would import more from that country; so that the
exports and imports of all countries would balance each other; bills of
exchange would make the necessary payments, but no money would pass,
because it would have the same value in all countries. (1810-1811a: 53-54 ; see
also Ricardo's letter to Malthus, 22 October 1811, VI: 64)

In this state of things countries act as if, at the macroeconomic level, they were bartering
bundles of goods. This also explains the phrase “equilibrium of money” used by Ricardo
(1817-1821: 141-142, 145) to depict this situation — thus referring again to his monetary
theory ant to the equality of the market price of gold and its mint price. In such a state of
things, in fact, “the distribution of the precious metals” among nations is stable.

Ricardo writes he “entirely” agrees with Thornton when the latter asserts that “it may be laid
down as a general truth, that the commercial exports and imports of a state naturally proportion
themselves in some degree to each other, and that the balance of trade therefore cannot continue
for a very long time to be either highly favourable or highly unfavourable to a country.” (cf. Ricardo 1810-1811a: 83)
Gold and silver having been chosen for the general medium of circulation, they are, by the competition of commerce, distributed in such proportions amongst the different countries of the world, as to accommodate themselves to the natural traffic which would take place if no such metals existed, and the trade between countries were purely a trade of barter. (1817-1821: 137; see also ibid.: 140)

As we shall see, the two characterization of the equilibrium — monetary or of trade — are only equivalent in a regime of convertibility. When the currency is inconvertible, there can be an equilibrium in trade without the condition on the market price of gold being fulfilled.

(c) In the third place, the remark quoted above that the value of gold “is never the same in any two countries” has far-reaching consequences. Because gold “is subject to such perpetual variations”, “the prices of the commodities which are common to most countries, are also subject to considerable difference.” (1817-1821: 143) This explains why, even if the theory of labour value determines domestic equilibrium relative prices, international exchanges are in general made at different rates. This does not mean that these exchanges are regulated by different principles. This apparent discrepancy vis-à-vis the theory of labour value simply happens because exchanges are necessarily monetary transactions and only money prices matter. In a given country this aspect is of no importance: relative prices are determined by the labour values because the currency is unique. This is not the case however between nations. Even if we suppose that the different monetary units are based on gold and that a gold standard prevails everywhere, the relative price between any two commodities produced in different countries will not reflect their relative labour values if gold, in those countries, do not possess the same value in terms of these commodities — commodities produced in exactly the same conditions, for example, will have different gold prices among nations.

This, in the end, explains why it is possible, in Ricardo’s words, that “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” (1817-1821: 135). Referring again to the case of Portugal and England, the exchange is made possible because cloth sells at a higher gold price in Portugal than in England. In this case, then, while the Portuguese gold price \( p_x \) of the wine sold in England is inferior to its English gold price \( p_x \), the Portuguese gold price \( p_e \) of the cloth were it produced in England — thus reflecting the ordering of labour values — the English gold price \( p \), of the cloth
exported to Portugal is inferior to its Portuguese gold price $p_r^*$, contradicting the ordering based on labour values.

**Destabilizing shocks (I)**

The interplay between money and foreign trade can be exemplified in the occasion of the analysis of destabilizing shocks. Now that we know what the state of equilibrium is, we must find out which kind of events could disrupt it and how the situation could evolve after a shock. Starting from a state of equilibrium, an event is said to be disruptive when it destroys the corresponding distribution of gold among nations. This means that the amount of currency existing in a country suddenly becomes either “redundant” or scarce. This superabundance or scarcity generate price movements which in turn provoke some changes in the flows of international trade.

The origin of the shock, in modern parlance, can be monetary if it results from an excessive or too restrictive emission of notes; or real if it is caused, for example, by a bad harvest, or by any change in the technology of the economy — including banking technology. Ricardo many times alludes to the improvements made by banks in handling and circulating money, thus provoking an economy in the use of the currency which, as a consequence, becomes too abundant. As for the bad harvest and the technical progress, they also provoke an excess of money in circulation, either because less commodities must be circulated during the period (bad harvest) or because of the fall of some prices (technical progress).

As for the disruptions they provoke, they can be temporary or persist in a longer run, thus leading to a new equilibrium in imports and exports. Typically the temporary effects will be due to a bad harvest, but also, as we shall see, to monetary shocks. The consequences due to technical progress, instead, are likely to generate a new equilibrium in trade. These two possible situations are now to be analyzed.

Let us first deal with a monetary shock. We know that in a gold standard regime the free circulation of gold inside and outside countries ensures that a currency is always at par — if we neglect the various costs of transportation, insurance, etc. But this statement only takes equilibria into account and not the period of adjustment which follows a shock —
for example an excessive emission of banknotes. During this period, in the supposed case of an over-emission, the rise in prices tends to “check exportations and encourage importation” and to lower the exchange rate: but an exportation of “corn and bullion”, in the end, brings back the quantity of currency and prices to their former levels, thus cancelling the changes in the structure of trade. As Ricardo explains to Malthus:

The currency has been augmented 2 p.c.t consequently the prices of all commodities, more or less, both inland and foreign would rise 2 p.c.t. The encouragement to the importation of goods, and the discouragement to exportation would be speedily counteracted by the demand for bills which would raise the price of them, or in other words lower the foreign exchange, 2 p.c.t. The trade would then go on as before but would be estimated in a medium depreciated 2 p.c.t. The real prices of commodities would be, to foreigners, unaltered. If the exchange fell 5 or 7 p.c.t in consequence of further depreciation metallic money would go as long as we had any to send, after which the trade would be restored to its accustomed level, and exports would precisely balance. (Ricardo to Malthus, 23 June 1811, in Ricardo 1951-1973, VI : 30; see also 22 December 1811, VI: 74)

Of course the story is different in a regime of inconvertible paper money because the over-emission cannot be corrected automatically: but, in the end, the effects on foreign trade will be the same. In this case, Ricardo remarks, the exchange rate will deviate from par “in the same proportion as its money might be multiplied beyond that quantity which would have been allotted to it by general commerce, if the trade in money had been free, and the precious metals had been used, either for money, or for the standard of money” (1817-1821: 230). The exchange rate thus reflects the depreciation of the currency. However, once the adjustment is made, foreign trade will not be affected in the end because “the effect on the exchange would counterbalance the effect of high prices” (1817-1821: 232). As an illustration, Ricardo writes, suppose that the circulation of gold pound sterling be replaced by paper money, and this paper money be doubled in quantity. What will happen?

[... ] every commodity in England would be raised to double its former price, and the exchange would be 50 per cent against England; but this would occasion no disturbance in foreign commerce, nor discourage the manufacture of any one commodity. If, for example, cloth rose in England from 20£ to 40£ per piece, we should just as freely export it after as before the rise, for a compensation of 50 per cent would be made to the foreign purchaser in the exchange; so that with 20£ of his money, he could purchase a bill which would enable him to pay a debt of 40£ in England. In the same manner if he exported a commodity which cost 20£ at home, and which sold in England for 40£, he would only receive 20£, for 40£ in England would only purchase a bill
for 20£ on a foreign country. (1817-1821: 231)

The same analysis was advanced during the bullion controversy when Ricardo asked for a progressive curtailment of the quantity of banknotes in circulation in order to diminish and cancel the depreciation of the currency. To those who, like Charles Bosanquet, were afraid of the consequences of such a policy, he answered:

To me, however, it appears perfectly clear, that a reduction of Bank notes would lower the price of bullion and improve the exchange, without in the least disturbing the regularity of our present exports and imports. It would neither enable us to export or import gold in any way different to what is now actually taking place. Our transactions with foreigners would be precisely the same, we should possess only a more valuable money of the same name.23 (1811: 245)

These developments imply another notable result. As already noted before, contrary to what happens in a regime of convertibility, in the case of an inconvertible currency an equilibrium in trade can be reached with a market price of gold different from its mint price.

A last remark is in order here before coming to the case of disruptive shocks due to technical progress. A brief passage in the Reply to Bosanquet seems to imply that the analysis is not symmetrical. In the case of a drastic reduction of the quantity of banknotes — i.e., a too important appreciation of the currency and a market price of gold below its mint price — might the monetary shock have an impact on the flows of foreign trade?

If, by a reduction of Bank notes, they were so raised in value as to be above the value of gold bullion, we should then interfere with the real course of exchange; we should disturb the present equilibrium of imports and exports; and we should cause an importation of bullion, or, in the language of merchants, a favourable balance of trade. (1811 : 245)

23 For example the change with Hamburg would rise from 28 to 34 Flemish shillings for a pound sterling. “The difference, however, of six shillings, which would thus appear in our favour, would be an advantage in name and appearance solely. No mistake would be greater than to suppose there was in it any real advantage” (Ricardo 1811: 245). The same comment is made by Ricardo in his notes to the evidence given by a “Continental Merchant” before the Bullion Committee (Ricardo 1810: 352-353, note 2).
This is not the case. Ricardo simply disapproves here of any manipulation of the currency, be it an appreciation or a depreciation. We should remember that, for Ricardo, money can have real effects and generates distributional effects — unjust transfers of wealth. This is the reason why, in his opinion, a very progressive reduction of the quantity of banknotes in circulation was necessary before resuming their convertibility, and an opposite excessive policy — a too important curtailment of notes — avoided. The above quoted passage just states that, in case the Bank of England goes to far in this opposite direction, the Government or the Parliament “should then interfere” in order to bring back the quantity of the currency to its natural level — how precisely they should is not specified. In this case, the perturbation in the flows of foreign trade would result from a deliberate economic policy.

**Destabilizing shocks (2)**

The case of a technological shock — exemplified in the *Principle* with, again, the case of Portugal and England — deals apparently with a two-commodity model but in fact analyzes the interactions of three commodities as bullion must be added to wine and cloth. The example supposes the implementation of a technical innovations that modifies the advantage of one country in the commerce of one commodity — after, it is to be supposed, some adjustments in prices due to an ensuing “superabondance” of money. England can now produce wine in a very economical way. Before the innovation, the prices of one unit of wine or cloth were respectively of 50£ and 45£ in England, and 45£ and 50£ in Portugal. In England, after the innovation, “wine would fall here [to 45£] while cloth continued at its former price, and in Portugal no alteration would take place in the price of either commodity” (1817-1821: 137). This will progressively modify the flows of exchanges between the two countries.

England, the innovating country, now stops importing wine from Portugal and produces it at home. Portugal continues to import cloth from England but, being no longer able to

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24 As another comment, on the evidence of the above mentioned “Continental Merchant” (1810: 353, note 3 and related text), can show.
export wine in exchange for it, will send bullion instead to settle the balance, gold being then the cheapest commodity.

As a consequence England witnesses an inflow of gold and Portugal an outflow. Prices will change accordingly: the products of the innovating country becomes dearer, and those of the other country cheaper. “The price of cloth, from being 45£ in one country and 50£ in the other, would probably fall to 49£ or 48£ in Portugal, and rise to 46£ or 47£ in England, and not afford a sufficient profit after paying a premium for a bill to induce any merchant to import that commodity.” (1817-1821: 140) This movement in prices in the two countries will thus continue to change the initial directions of the flows of trade: after England stopped importing wine, Portugal stops importing cloth. As Ricardo sums up:

Cloth would continue for some time to be exported from this country, because its price would continue to be higher in Portugal than here; but money [gold] instead of wine would be given in exchange for it, till the accumulation of money [gold] here, and its diminution abroad, should so operate on the relative value of cloth in the two countries, that it would cease to be profitable to export it. (1817-1821: 137)

But the story does not end at this point and three remarks are in order.

(a) In the first place, the process of alteration of the flows of trade could be so strong and reverse in the end the initial flows of exports and imports. England could end exporting wine and importing cloth, and Portugal exporting cloth and importing wine.

If the improvement in making wine were of a very important description, it might become profitable for the two countries to exchange employments; for England to make all the wine, and Portugal all the cloth consumed by them; but this could be effected only by a new distribution of the precious metals, which should raise the price of cloth in England, and lower it in Portugal. (1817-1821: 137-138)

(b) In the second place however Ricardo relativizes his conclusions on the importance of the flows of gold between countries and the subsequent movements of prices. He remarks that they look so clear-cut because only two commodities — in fact three, including bullion — are considered in this story. If, he writes, we take into account the many commodities that can be the objects of trade between the two nations, the price movements generated in these countries by the initial technical progress will be dampened
simply because the inflow and outflow of gold would be less important. Portugal, for example, could export another commodity instead of gold to pay its imports of cloth.

By the abstraction of money [gold] from one country, and the accumulation of it in another, all commodities are affected in price, and consequently encouragement is given to the exportation of many more commodities besides money [gold], which will therefore prevent so great an effect from taking place on the value of money [gold] in the two countries as might otherwise be expected. (1817-1821: 141)

(c) In the third place, the new situation reached after the double process of innovation and variations of the price levels is not necessarily better than the initial state of things. If for example England stops importing wine and Portugal importing cloth, both countries will produce at home the wine and cloth they consume. This is a partial regression in the division of labour. The “singular result” (1817-1821: 140), in Ricardo’s eyes, is that, because of the innovation, and in spite of the rise in prices, England would in the end be in a better situation than before. Portugal, instead, in spite of lower prices, will loose in terms of use values.

This [the lower prices], however, is only a seeming advantage to Portugal, for the quantity of cloth and wine together produced in that country would be diminished, while the quantity produced in England would be increased. (1817-1821: 141)

5. International prices and specialization

An important problem in the theory of international trade is that of the prices at which international transactions are made or at which commodities are sold in the importing country. We know the importance of the literature on the determination of “international values”. We also know that this problem arose from J. S. Mill’s peculiar understanding of Ricardo’s theory. It induced him to think in real terms, to start with a state of autarky before analyzing the international flows of exchange and to determine, with the aid, for each country, of demand schedules for the foreign commodity, an international price lying within an interval bounded by the autarky price ratios in the two countries. If the international relative price equals by chance one of the two autarky ratios, then one country gains the whole benefits from trade and the other nothing. Ricardo’s approach, however, is different.
There are no specific “international prices”

In Chapter 7 of the Principles, Ricardo insists on one point: foreign trade by no means increases the value of the annual product of the country. The discovery of new markets, for example, that allow us to obtain “double the quantity of foreign goods in exchange for a given quantity of our’s” (1817-1821: 128) would not change the total value of the commodities imported. 25 Reasoning at the macroeconomic level, Ricardo notes that they would simply sell in the home market accordingly, for the same total value: that of the commodities given in exchange. At the individual level, the following quotation is unambiguous — if we discard the problem of the reference to a uniform rate of profit and thus to production prices.

If by the purchase of English goods to the amount of 1000£, a merchant can obtain a quantity of foreign goods, which he can sell in the English market for 1,200£, he will obtain 20 per cent profit by such an employment of his capital; but neither his gains, nor the value of the commodities imported, will be increased or diminished by the greater or smaller quantity of foreign goods obtained. Whether, for example, he imports twenty-five or fifty pipes of wine, his interest can be no way affected, if at one time the twenty-five pipes, and at another the fifty pipes, equally sell for 1,200£. In either case his profit will be limited to 200£, or 20 per cent on his capital; and in either case the same value will be imported into England. (1817-1821: 128)

This implies that the individual prices of commodities will not differ much at home and in the producing country. The idea is specified in Chapters 25 and 28. There Ricardo insists on the fact that, if we neglect the transportation costs, the price of an imported good in the home market is basically the same as in the exporting country:

[...] no more will be paid for commodities by foreign purchasers than by home purchasers; the price which they will both pay will not differ greatly from their natural price in the country where they are produced. England, for

25 Although the vocabulary was not yet fixed, this point was already stressed in his Notes on Bentham where we can find also the first mention of an exchange of cloth and wine between England and Portugal. “It can make no difference to the real wealth of the country whether the commodities produced be exported or consumed at home. If 100 pieces of cloth be consumed at home or whether they are exported to Portugal in exchange for wine and the wine be consumed at home can make no other difference but the profit. [...] If we imported Russias linen, and the consumers of the linen were to reproduce the value in some other commodity, it would be nearly the same as if the consumers of the cloth at home were to reproduce the value of the cloth.” (1810-1811b: 330-331)
example, will, under ordinary circumstances, always be able to buy French goods, at the natural price of those goods in France, and France would have an equal privilege of buying English goods at their natural price in England. (1817-1821: 340-341)

Let us suppose that this good is corn. Suppose also that the price of an unit of corn is 3£ in France and 6£ in England because of a prohibition of importation of corn in this country. Now if this prohibition is removed, importation from France will of course change the price of corn in England. To what extent? All things being equal, until the English consumer pays the French price:

[...] corn would fall in the English market, not to a price between 6l. and 3l., but ultimately and permanently to the natural price of France, the price at which it could be furnished to the English market, and afford the usual and ordinary profits of stock in France; and it would remain at this price, whether England consumed a hundred thousand, or a million of quarters. (1817-1821: 374-375)

Of course if the quantity imported were so great as a million of quarters, the French producers would probably be obliged to increase their production and consequently to cultivate less fertile land. The price of corn would thus rise in both countries. This does not change the principle of the determination of prices:

All that I contend for is, that it is the natural price of commodities in the exporting country, which ultimately regulates the prices at which they shall be sold, if they are not the objects of monopoly, in the importing country. (1817-1821: 375)

The qualification is of course essential. In the above example of the importation of wine Ricardo also supposes that there is no monopoly in trade. A free competition among the importers is therefore needed but, it must be noted, no more and no less than it is required in any other market.

If the fifty pipes sold for more than 1,200£, the profits of this individual merchant would exceed the general rate of profits, and capital would naturally flow into this advantageous trade, till the fall of the price of wine had brought every thing to the former level. (1817-1821: 128)

As a consequence of this analysis of the fixation of the international prices, the argument logically implies that, in all countries and in a state of equilibrium, “exportable commodities” have each the same gold price in the different trading nations, corrected by
MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE

various costs supported by the merchants. The following quotation seems however to go against this conclusion:

When each country has precisely the quantity of money which it ought to have, money [gold] will not indeed be of the same value in each, for with respect to many commodities it may differ 5, 10, or even 20 per cent., but the exchange will be at par. (1817-1821: 147)

But these differences of “5, 10, or even 20 per cent” just express the fact that the costs pertaining to international trade are more extensive than the transportation, insurance, etc. costs understood in a restrictive way and usually taken into account.

Estimated in either of these commodities26 money or bullion may differ in value in any two countries, not only all the expences attending its exportation, but also all the expences attending the importation of the commodity to be given in exchange for it. Thus if the expence of sending money to the East Indies amounted to 5 p.c.t, and the expence of sending Muslins from the East Indies to London amounted to 10 p.c.t, before money can be exported from England for the purpose of procuring Muslins in return, its value estimated in that commodity must be at least 15 p.c.t higher in the East Indies than in England. You […] observe […] that the consumers pay these expences. Undoubtedly they do but in the first instance they are advanced by the exporter and constitute part of the price of the commodity. (Ricardo to James Mill, 26 September 1811, in Ricardo 1951-1973, VI: 55)

Which kind of specialization?

The question of specialization of countries in the production of some commodities has also been long debated. Total or partial specialization? Ricardo never considers this problem directly but the main conclusion that has been drawn from his analysis seems to be correct. A passage from Ricardo (1817-1821: 137-138) quoted above is significant in that respect. An important improvement in the production of English wine was supposed to lead to a reversal in the flows of exchanges between England and Portugal, this reversal being depicted in the following terms: “for England to make all the wine, and Portugal all the cloth consumed by them” (1817-1821: 138). If thus free competition prevails, countries

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26 “…corn, coffee, hardware or any amongst the thousands of commodities which may be exported” (Ricardo to James Mill, 26 September 1811, in Ricardo 1951-1973, VI: 55).
probably will fully specialize in the production of commodities they are exporting and abandon the production of the good they import. The logic of competition requires this.

Two circumstances however could stop the process of specialization in some industries: an insufficient capacity of production in the exporting country, and the existence of decreasing returns. The first case refers to the situation where the quantities of a commodity a country needs to import are so great that the exporting country cannot produce them. The second refers of course to agriculture and mining where the natural prices of products increase with the exploitation of less fertile land or mines: but in this case the rising prices could in fact lead to a quasi-cessation of the flows of exchanges between the countries with this paradoxical result that, as soon as exchanges stop, the exporting country must diminish its production, abandon the less fertile land, its exports being then again profitable with the diminution of their natural price.

**Rich and poor countries**

Ricardo’s analysis of the comparative structures of trade between countries is also interesting because it apparently stresses the fact that the comparative abundance of factors could play a role in specialization — and we know the success of this theme in contemporary international trade theory with the so-called Heckscher-Ohlin approach.

Ricardo deals with poor and rich countries and refers to the fact — advanced against Adam Smith, especially in Chapter 28 of the *Principles* — that in rich countries the money wages are higher than in poor countries: “estimated in corn, gold may be of very different value in two countries. I have endeavoured to shew that it will be low in rich countries, and high in poor countries” (1817-1821: 377). This is so because, all things being equal, the accumulation of capital provoke an increase in population and consequently the cultivation of less and less fertile land and the rise in the prices of agricultural products.

No point in political economy can be better established, than that a rich country is prevented from increasing in population, in the same ratio as a poor country, by the progressive difficulty of providing food. That difficulty must necessarily raise the relative price of food, and give encouragement to its importation. (1817-1821: 373)
This situation is most probably the result of the past path of development that is itself in part a consequence, at some stage, of the advantage presented by some nations because of their “situation”, “climate, and […] other natural or artificial advantages” (1817-1821: 132).

It is only in rich countries, where corn is dear, that landholders induce the legislature to prohibit the importation of corn. Who ever heard of a law to prevent the importation of raw produce in America or Poland? — Nature has effectually precluded its importation by the comparative facility of its production in those countries. (1817-1821: 373-374)

Rich and poor countries are in the end defined by the respective amount of accumulated fixed capital with respect to the amount of circulating capital, including labour. Rich countries “where large capitals are invested in machinery” are opposed to poorer countries “where there is proportionally a much smaller amount of fixed, and a much larger amount of circulating capital” (1817-1821: 266).

Wages are lower in poor countries and “more work is done by the labour of men” (1817-1821: 266). This will induce countries to invest capital in different employments entailing different techniques of production — less capitalistic in poor countries, more in rich countries — with obvious consequences on the structure of production, prices and thus foreign trade. But anything more precise cannot be said at this point.

In the distribution of employments amongst all countries, the capital of poorer nations will be naturally employed in those pursuits, wherein a great quantity of labour is supported at home, because in such countries the food and necessaries for an increasing population can be most easily procured. In rich countries, on the contrary, where food is dear, capital will naturally flow, when trade is free, into those occupations wherein the least quantity of labour is required to be maintained at home: such as the carrying trade, the distant foreign trade, and trades where expensive machinery is required; to trades where profits are in proportion to the capital, and not in proportion to the quantity of labour employed. (1817-1821: 349)

6. Conclusion

I hope this enquiry has shown that Ricardo’s texts offer us much more on international trade than the celebrated “four magic numbers”. We have to look beyond the few paragraphs that, in the long Chapter 7 of the *Principles*, deal with what was called later “comparative advantage” — and the related “gains from trade” widely used by subsequent
writers as a powerful argument in favour of free trade, each country being susceptible of benefiting from its participation in international exchanges. If we do that we obtain a much more comprehensive approach which involves almost all of Ricardo’s writings, shows how his real and monetary analyses are inextricably intertwined and situates comparative advantage in a more accurate perspective. No doubt that, in spite of all the difficulties and ambiguities presented by his texts, Ricardo’s unity of view is remarkable. Each part of his theories is just a piece of a jigsaw puzzle which cannot be contemplated separately but find its relevance only when all the pieces of the picture are put together again.

To obtain this picture, the usual analysis at the macroeconomic level had to be discarded and the motivation of agents in competitive markets examined. They — and not the State — decide of the transactions. Merchants — not countries — engage in foreign trade. They take their decisions on the basis of the usual signals given by competitive markets — money prices — following a simple and obvious rule: like in any other activity, they decide to carry out a transaction whenever it is profitable for them to do so. Hence an analysis in terms of nominal variables, and the link with the theory of money, with all the consequences in terms of equilibrium prices, specialization, reactions to destabilizing shocks, etc.

Now the present enquiry must certainly be carried on. The action of the State must be introduced in the picture and the consequences on foreign trade of the various kind of taxes, tariffs, subsidies, treaties of commerce etc. carefully established: after all, this was one among Ricardo’s main concerns. The analysis is however more complex because, in most of his developments on these topics, Ricardo refers to production prices and the principle of the uniformity of the profit rate. But this is another story… and another paper.

References


MR RICARDO’S PRINCIPLES OF INTERNATIONAL TRADE


