

Defense versus Opulence? An Appraisal of the Malthus-Ricardo 1815 Controversy on the Corn Laws

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History of Political Economy, vol. 47 n°1, 2015

As is well known, Thomas Robert Malthus and David Ricardo stood on opposite sides in the lively political debate that led to the enactment of the 1815 Corn Laws.¹ In *The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn: Intended as an Appendix to "Observations on the Corn Laws"* (1815; hereafter *Grounds*), Malthus repudiated the policy of free corn trade that he had considered favorably in his *Observations on the Effects of the Corn Laws, and of a Rise or Fall in the Price*

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1. The Corn Laws of 1804 imposed a high import duty of 30 shillings and 3¾ pence when the British market price of corn fell below 63 shillings per quarter, while the Corn Laws of 1815 prohibited the importation of foreign corn altogether when the British market price of corn fell below 80 shillings per quarter: see Hollander 1997, appendix B, 869–70. As noted by Boyd Hilton (1977, 4), the Corn Laws of 1804 “had inaugurated a golden decade for most agriculturists. Though that law never operated, inflation having immediately dwarfed the prices at which it had imposed effective import duties, the wartime commercial blockade bestowed a natural protection on British and Irish corn.” Following (1) the findings of the Parliamentary Select Committees appointed in 1813 and 1814 to report on the corn question, (2) the fall in the domestic corn price ensuing from the bumper harvest of 1813, and, finally, (3) the abrupt end of the Napoleonic Wars in April 1814, the issue of foreign corn trade took center stage in British political debate in late 1814/early 1815 (see Ricardo 1951–73, 4:3). Fay 1932 is a classic study in the historiography of the British Corn Laws. Schonhardt-Bailey 2006 provides an extensive assessment of the complex issues underlying their 1846 repeal under the Tory government of Robert Peel.

History of Political Economy 47:1 DOI 10.1215/00182702-2847351

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of *Corn on the Agriculture and General Wealth of the Country* (1814; hereafter *Observations*). By contrast, in *An Essay on the Influence of a Low Price of Corn on the Profits of Stock* (1815; hereafter *Essay*), Ricardo (1951–73, 4:9) explicitly endorsed the “policy of leaving the importation of corn unrestricted by law.”

Differences of emphasis apart, historians of economic analysis basically agree that the *Essay* is a crucial stepping stone in the evolution of Ricardo’s thought toward his mature work, *On the Principles of Political Economy and Taxation* (1817). In particular, three issues have been extensively investigated. First, since Piero Sraffa’s 1951 introduction to *The Works and Correspondence of David Ricardo*, a major bone of contention has been the so-called corn model as the implicit foundation for the famous “Table, shewing the Progress of Rent and Profit under an assumed Augmentation of Capital” and the privileged role assigned by Ricardo to the agricultural profit rate (Bharadwaj 1983; de Vivo 1985; Eatwell 1975; Garegnani 1982, 1983; Hollander 1973; Hollander 1979, chap. 4; Hollander 1983; Peach 1984; more recently, see Kurz 2011). Second, some scholars have assessed the compatibility between the dynamic and static features of Ricardo’s theory of international trade as developed in the *Essay* and in chapter 7, “On Foreign Trade,” of the *Principles* (Burgstaller 1986; Findlay 1974; Maneschi 1983, 1992). Finally, Mark Blaug (1956, 41) claimed that “the body of doctrine which Ricardo bequeathed to his followers rested on a series of definite predictions about the course of economic events which were subject to empirical verification, in the strictest sense of the term,” whereas Samuel Hollander (1977; 1979, chap. 11) maintained that Ricardo did not make any definite prediction as to the tendency of the British economy toward the stationary state in the foreseeable future.

So far, less exegetical care has been lavished on studying the logic underlying the specific arguments employed by Ricardo in the *Essay* to counteract Malthus’s endorsement of a protectionist food policy in *Grounds*. The aim of our article is to fill such a lacuna. We first point out (sections 1 and 2) that Malthus, both in *Observations* and in *Grounds*, argues in favor of the view that from a strictly theoretical perspective, all trading countries gain from the improved international division of labor engendered by free trade. However, (1) political reasons, (2) an optimistic view of technological progress in British agriculture, and (3) his belief that Great Britain and Ireland still had a backlog of undercultivated fertile

lands induced Malthus in *Grounds* to champion a policy of food autarky.² Malthus thought that such a policy would shelter Great Britain from the threat of too heavy a dependence on foreign corn imports. We then show (section 3) that in the *Essay*, Ricardo addressed the national security issue raised by Malthus in *Grounds*. Ricardo claimed that if Great Britain were to relinquish a policy of food self-sufficiency, and were to credibly commit itself to a free trade policy, agricultural countries would find it profitable not only to enter into a free trade relationship with Great Britain but also to invest additional capital in their own agricultural sectors so as to increase their corn production capacity. Such investments would be required in order to meet increased British demand for corn. Once these investments were carried out, Ricardo's argument continued, foreign agricultural countries would suffer substantial economic losses if they enacted restrictive corn export legislation: a refusal to export their corn surpluses to Great Britain would entail a glut in their domestic corn markets and a severe depression of their agricultural sectors. Finally, Ricardo maintained that in a free trade scenario, the number of agricultural countries trading with Great Britain would increase substantially, and, accordingly, the risk for Great Britain that all of them would simultaneously enact restrictive corn export legislation would be negligible.³

2. John Pullen (1995, 525) claims that Malthus's 1815 attitude toward the foreign corn trade fits perfectly with Malthus's *forma mentis*: Malthus was always keen to distinguish between abstract theoretical principles and the practical application of those principles to specific issues. Malthus ([1815] 1986, 158) himself in *Grounds* wrote, "I protest most entirely against the doctrine, that we are to pursue our general principles without ever looking to see if they are applicable to the case before us."

3. Accordingly, we cannot agree with Samuel Hollander (1977, 13; 1979, 609), who maintains that "[Ricardo's] *major point is simply that the rate of growth is likely to be higher in a free system than in a protected system*" (Hollander's italics). Contra Hollander's interpretation as to Ricardo's growth optimism and Ricardo's views of the drawbacks entailed by the Corn Laws, see O'Brien 1981, 359–61, 375–81. We add here that Ricardo was not considering the symmetrical relationship between two agricultural countries exchanging, say, corn and wine, but the relationship between a manufacturing country and an agricultural country (or more than one). Ricardo showed that the growth rate of the manufacturing country would be higher in a free trade scenario than in an autarky scenario. Even if he never mentioned the consequences for the rate of growth of the agricultural country in the two different scenarios, an obvious corollary of his reasoning is that actually the growth rate of the agricultural country would be lower in a free trade scenario than in an autarky scenario. This is so since in the free trade case less fertile plots of land than those used under autarky would be brought into cultivation in the agricultural country (even if these plots are more fertile than those dismissed in the manufacturing country on the opening of its ports to foreign corn).

After presenting the arguments of Malthus and Ricardo in their respective 1815 essays, we provide (section 4) an assessment of the debate. We first relate their different trade-policy proposals to their contrasting views of the European political situation in the aftermath of the Napoleonic Wars, and we also investigate their proposals by making use of the language and analytical tools developed in modern game theory. Moreover, we briefly discuss (section 5) the echoes of the 1815 debate in some of the subsequent works of Malthus and Ricardo, particularly in their respective *Principles*. Since Malthus grounded his proposal of a food autarky policy, inter alia, on an alleged trade-off between defense and (trade-induced) opulence, it seems appropriate to briefly compare Malthus's and Ricardo's contributions with the previous literature on this issue (section 6). Finally, we propose some concluding remarks (section 7).

1. Malthus as an “Impartial” Examiner: *Observations* (1814)

Malthus ([1814] 1986, 88) describes his *Observations* as a detached attempt to evaluate “with the strictest impartiality” the pros and cons of the two policy options under scrutiny: free versus restricted importation of foreign corn. Although he claims that his goal is simply to furnish “the materials for a just and enlightened decision; and, whatever that decision may be, to prevent disappointment, in the event of the effects of the measure not being such as were previously contemplated” (88), it is fair to say that on balance, Malthus's analysis ends up on the side of free trade (for a similar appraisal, see Hollander 1997, 820–24). Malthus contended that if a country where manufactures are highly developed and all fertile lands are already fully cultivated were to establish a trade relationship with another country where the opposite economic conditions hold, the developed country would not grow an independent supply of corn, *granted universal freedom of trade*:

There is every reason to suppose, that even a large landed nation, abounding in a manufacturing population, and having cultivated all its good soil, might find it cheaper to purchase a considerable part of its corn in other countries, where the supply, compared with the demand, was more abundant. *If the intercourse between the different parts of Europe were perfectly easy and perfectly free*, it would be by no means natural that one country should be employing a great capital in the culti-

vation of poor lands, while at no great distance, lands comparatively rich were lying very ill cultivated, from the want of an effectual demand. (95; *our italics*)

It is worth stressing that Malthus qualified his statement that international trade between manufacturing and agricultural countries would be mutually beneficial with the proviso “if the intercourse between the different parts of Europe were perfectly easy and perfectly free.” As we show in the next section, what in the 1814 essay was a simple caveat, in the 1815 essay became the crucial argument used by Malthus to repudiate his 1814 neutrality and to take a stand unreservedly in favor of corn import restrictions. According to Malthus ([1814] 1986), the free importation of foreign corn would benefit the British manufacturing sectors due to a resulting increase in foreign demand for British manufactured commodities—“As all trade is ultimately a trade of barter, and the power of purchasing cannot be permanently extended without an extension of the power of selling, the foreign countries which supplied us with corn would evidently have their power of purchasing our commodities increased, and would thus contribute more effectually to our commercial and manufacturing prosperity” (99)—and would secure a downward stabilization of the domestic corn market price: “It must be allowed, that a free trade in corn would in all ordinary cases not only secure a cheaper, but a more steady, supply of grain” (100). Although in Malthus’s view the price of corn did not exclusively and immediately determine money wages, he nevertheless maintained that it exerted a strong influence on wage dynamics. Therefore, Malthus ended up asserting that the free importation of foreign corn would result in a sharp reduction of British money wages and, consequently, of production costs for British manufactures. By squeezing the wage gap between Great Britain and the other trading countries, free trade would induce downward stabilization of the domestic corn market price, thereby benefiting British manufactures (98).

According to Malthus, the drawbacks engendered by restrictions on free corn imports could be listed as (1) an inefficient allocation of British capital between the agricultural and the manufacturing sector of the British economy, (2) an increase in production costs with consequent loss of international competitiveness for British manufactures, (3) a slowdown in population growth due to the high price of corn and the reduced demand for labor by the manufacturing sector, and (4) the need for repeated legislative intervention to match the ongoing evolution of the international corn

market (104–5). Malthus went so far as to claim that peacetime restrictions on the free importation of foreign corn, engineered to keep the British market price of corn at its wartime level, would ultimately harm not only British manufactures but also British agriculture, that is, the very sector they were intended to support (105–6).

However, Malthus's impartiality led him to maintain that free corn trade and the ensuing downward stabilization of the British market price of corn were far from being "an unmixed good" (105). In Malthus's perspective, without tariff protection the British agricultural sector would inevitably and substantially shrink, both in relative and absolute terms, and Great Britain would find itself facing the evils of unbalanced economic growth.⁴ First, an increasing share of British workers would be exposed to the ups and downs of the domestic and international business cycle, given the much higher variability of the demand for manufactures than the demand for food (101). But, cyclical fluctuations apart, Malthus was ready to acknowledge that the development of manufactures entailed significant long-run beneficial welfare effects for society as a whole:

Yet though the condition of the individual employed in common manufacturing labour is not by any means desirable, most of the effects of manufactures and commerce on the general state of society are in the highest degree beneficial. They infuse fresh life and activity into all classes of the state, afford opportunities for the inferior orders to rise by personal merit and exertion, and stimulate the higher orders to depend for distinction upon other grounds than mere rank and riches. They excite invention, encourage science and the useful arts, spread intelligence and spirit, inspire a taste for conveniences and comforts among the labouring classes; and, above all, give a new and happier structure to society, by increasing the proportion of the middle classes, that body on which the liberty, public spirit, and good government of every country must mainly depend. (101–2)

Second, and most importantly, Malthus highlighted a political risk. Great Britain would become a country heavily dependent on foreign corn importation to match its food requirements. Malthus, echoing Smith ([1776] 1976, IV.ii.30), warned his readers that such a structural depen-

4. Malthus's agricultural bias fully reveals the physiocratic dimension of his thought in the early 1810s: see Hollander 1997, chap. 8.

dence on a food supply from abroad could turn out to be a fearsome weapon of blackmail in the hands of foreign countries, especially in times of war:

It is alleged, first, that security is of still more importance than wealth, and that a great country likely to excite the jealousy of others, if it become dependent for the support of any considerable portion of people upon foreign corn, exposes itself to the risk of having its most essential supplies suddenly fail at the time of its greatest need. (Malthus [1814] 1986, 100)

On the other hand, Malthus conceded that foreign countries would have few economic incentives to reduce their corn exports to Great Britain because such a choice would result in the loss of a significant source of income:

That such a risk is not very great will be readily allowed. It would be as much against the interest of those nations which raised the superabundant supply as against the one which wanted it, that the intercourse should at any time be interrupted; and a rich country, which could afford to pay high for its corn, would not be likely to starve, while there was any to be purchased in the market of the commercial world. (100)

Rather, Malthus argued that foreign corn-producing countries that expected Great Britain to adopt free trade would have strong incentives to increase their corn production in order to meet the increased British demand for corn:

There can be little doubt, that if the corn growers in the neighbourhood of the Baltic could look forward to a permanently open market in the British ports, they would raise corn expressly for the purpose. The same observation is applicable to America; and under such circumstances it would answer to both countries, for many years to come, to afford us supplies of corn, in much larger quantities than we have ever yet received from them. (95–96)

Malthus concluded his “impartial” analysis of the pros and cons of alternative corn trade policies in *Observations* with an invitation to the British Parliament to postpone a final decision regarding the issue of the foreign corn trade. As an alternative, Malthus proposed giving “the restrictions the form of a constant duty upon foreign corn, not to act as a prohibition, but as a protecting, and at the same time, profitable tax” (109).

2. Malthus as a Committed Protectionist: *Grounds* (1815)

In contrast to *Observations*, in *Grounds* Malthus ([1815] 1986, 151) boldly declared his “deliberate, yet decided, opinion in favour of some restrictions on the importation of foreign corn.” Indeed, what Malthus presented at the outset of his 1815 essay as “some restrictions” became in the course of the same essay a policy of food self-sufficiency, purposely engineered to make Great Britain dependent on corn imports only in the years of very poor domestic harvests:

I have fully made up my mind as to the side on which the balance lies; and am decidedly of opinion, that a system of restrictions so calculated as to keep us, in average years, nearly independent of foreign supplies of corn, will more effectually conduce to the wealth and prosperity of the country, and of by far the greatest mass of the inhabitants, than the opening of our ports for the free admission of foreign corn, *in the actual state of Europe*. . . . I firmly believe that, *in the actual state of Europe*, and under the *actual circumstances of our present situation*, it is our wisest policy to grow our own average supply of corn; and, in so doing, I feel persuaded that the country has ample resources for a great and continued increase of population, of power, of wealth, and of happiness. (160, 174; our italics)

The recurrent phrase “in the actual state of Europe” and the use of similar phrases like “under the actual circumstances of our present situation” emphasize the fact that Malthus’s volte-face from detached impartiality to active partisanship on the issue of the foreign corn trade did not arise from a change in his theory.⁵ Malthus insisted that he still adhered to the weighing of free versus restricted corn trade alternatives provided in *Observations*. Rather, Malthus’s new view was influenced by his observation of what he defined as some new facts:

The grounds on which the opinion so formed [in favor of some restrictions on the importation of foreign corn] rests, are partly those which were stated in the *Observations*, and partly, and indeed *mainly*, some facts which have occurred during the last year, and which have given,

5. As we show in the following section, in the *Essay* Ricardo criticized Malthus for taking as given “the actual state of Europe,” thus downplaying the possibility that such a state could change as a response to the adoption of a free trade policy by Great Britain.

as I think, a decisive weight to the side of restrictions. (152; our italics; see also 156)

The new fact to which Malthus was referring was the introduction of legislation in France (the country that Malthus considered as indisputably the main source of foreign corn supply, if Great Britain were to adopt a policy of free corn trade: see Hollander 1997, 829n30) imposing restrictions on French corn exports.⁶ The crux of Malthus's argument was that the abolition of trade restrictions, if adopted unilaterally by a single country, would be flying in the face of the economic interests of that country:

There is no person in the least acquainted with political economy, but must be aware that the advantages resulting from the division of labour, as applicable to nations as well as individuals, depend solely and entirely on the power of exchanging subsequently the products of labour. And *no one can hesitate to allow, that it is completely in the power of others to prevent such exchanges, and to destroy entirely the advantages which would otherwise result from the application of individual or national industry, to peculiar and appropriate products.* (158–59; our italics)

The advantage Great Britain would derive from adopting a policy of food self-sufficiency in an international setting in which corn-producing countries could, at any time, introduce restrictive legislation on corn exports stemmed from the fact that, in Malthus's view, Britain's high, war-time market price of corn had encouraged "a great increase of capital laid out upon the land, and a great consequent extension of cultivation and improvement" (152). By contrast, the free importation of cheap foreign corn would lead to a drastic and permanent fall in the British market price of corn and to the expectation that corn prices would indeed continue to fall, as well as to the abandonment of cultivation of marginal British lands and a slowdown of technological progress in agriculture. In such a scenario, Great Britain would become structurally dependent on foreign corn

6. As noted by Hollander (1997, 828, 829), for the Malthus of *Grounds* "the issue was not free trade versus protection. . . . The true choice was between a bogus 'free trade' subject to French export control precluding an inflow from the Continent during 'scarce years' and a restrictive system designed to render Britain 'in average years, nearly independent of foreign supplies.'" In Hollander's view, Malthus opted for the latter arrangement because he thought it to be the one most conducive to British prosperity *and* security alike.

imports, since average corn production on British fertile lands would not be sufficient to match domestic consumption needs; in addition, marginal, less fertile lands, once abandoned, would require time and considerable capital investment to bring them back into production:

The fall of prices, which had lately taken place, and the alarm of a still further fall, from continued importation, had not only checked all progress of improvement, but had already occasioned a considerable loss of agricultural advances; and that a continuation of low prices would, in spite of a diminution of rents, unquestionably destroy a great mass of farming capital all over the country, and essentially diminish its cultivation and produce. (153)

Malthus's shift toward food autarky in *Grounds* is reinforced by his beliefs that (1) the extension of British and Irish territory was such as to push the threat of diminishing returns in agriculture to a distant future and (2) the high domestic market price of corn under autarky would continue to stimulate technological progress in agriculture and provide sufficient incentives to spread the best agricultural techniques throughout the country:⁷

If merely the best modes of cultivation, now in use in some parts of Great Britain, were generally extended, and the whole country was brought to a level, in proportion to its natural advantages of soil and situation, by the further accumulation and more equable distribution of capital and skill; the quantity of additional produce would be immense, and would afford the means of subsistence to a very great increase of population. . . . It is quite evident that . . . *the united empire* [Great Britain and Ireland] *has ample means of increasing in wealth, population, and power, for a very long course of years, without being habitually dependent upon foreign supplies for the means of supporting its inhabitants.* (161; our italics)

7. Malthus's views on the role of Ireland as the British granary, the existence of as yet unexploited efficiency gains by implementing agricultural best-practices throughout British farms, and the severe capital and corn production losses deriving from British marginal lands being put out of tillage were widely shared in 1814/early 1815: see Hilton 1977, 23. See also the summary of the report of the 1814 Grain Committee provided by William Smart: "The sudden removal of these [wartime] impediments [to foreign corn importation] might prevent the enclosure and cultivation of great tracts of land still lying waste and unproductive, counteract the spirit of improvement in other quarters, and check its progress upon lands already under tillage. . . . If [cold clay or waste and inferior lands] were withdrawn from tillage, they would for many years be of very little use as pasture, and the loss from such a change, as well to the occupiers as to the general stock of national subsistence, would be very great" (quoted in Hollander 1997, 740n1).

3. Ricardo's Critique of "Arguments Almost Unanswerable Respecting the Danger of Dependence on Foreign Countries": The *Essay* (1815)

Ricardo's *Essay* belongs to the rich pamphlet literature that blossomed "in anticipation of the debates in the House of Commons on the question of the Corn Laws" (Ricardo 1951–73, 4:4) and has aptly been described as "an essay in persuasion" (Hollander 1979, 118). Its title *in extenso* reads: *An Essay on the Influence of a Low Price of Corn on the Profits of Stock; Shewing the Inexpediency of Restrictions on Importation: With Remarks on Mr. Malthus's Two Last Publications: "An Inquiry into the Nature and Progress of Rent" and "The Grounds on the Policy of Restricting the Importation of Foreign Corn."* Malthus's two contributions mentioned by Ricardo were published on February 3 and 10, respectively; Ricardo's *Essay* was published on February 24, 1815 (Ricardo 1951–73, 4:5). After reading Malthus's essay on rent, Ricardo expressed his warm admiration to his friend in a letter dated February 6, 1815:

I have now read with very great attention your essay on the rise and progress of rent with a view of selecting every passage which might afford us subject for future discussion. *It is no praise to say that all the leading principles in it meet with my perfect assent*, and that I consider it as containing many original views, which are not only important as connected with rent, but with many other difficult points, such as taxation &c^a. &c^a. (6:172; our italics)

But just a week later, after reading Malthus's protectionist essay, Ricardo highlighted what in his view appeared to be a chasm between Malthus as the pure theorist in *An Inquiry into the Nature and Progress of Rent* and Malthus as a supporter of a protectionist policy in *Grounds*:

I have read the Appendix [Ricardo here refers to *Grounds*] also with great attention and cannot help thinking that you have quite thrown off the character of impartiality to which in the observations [Ricardo here refers to *Observations*] I thought you fairly entitled. You are avowedly for restrictions on importation; of that I do not complain. It is not easy to estimate justly the dangers to which we may be exposed.—Those who are for an open trade in corn may underrate them, and it is possible that you may overrate them. It is a most difficult point to calculate these dangers at their fair value,—but in an economical view,

altho' you have here and there allowed that we might be benefited by importing cheap, rather than by growing dear—you point out many inconveniences which we should suffer from the loss of agricultural capital, and from other causes; which would make it appear as if even economically you thought we ought [not] to import corn,—such is the approbation with which you quote from Adam Smith of the benefits of agriculture over commerce in increasing production, and which *I cannot help thinking is at variance with all your general doctrines.* (6:177–78; our italics)

The critical strategy adopted by Ricardo in his *Essay* consisted in making use both of the analytical results obtained by Malthus in *An Inquiry into the Nature and Progress of Rent* as well as of a few arguments taken from Malthus's "impartial" essay, *Observations*, in order to counter the arguments used by Malthus to support protectionism in the "committed" essay, *Grounds*. Concerning rent theory and its logical implications, Ricardo stressed (1) the inverse relationship between rent and profits, given real wages and agricultural technology:

By bringing successively land of a worse quality, or less favourably situated into cultivation, rent would rise on the land previously cultivated, and precisely in the same degree would profits fall; and if the smallness of profits do not check accumulation, there are hardly any limits to the rise of rent, and the fall of profit. (4:14)

and (2) the nature of rent as a transfer payment so that whatever cause led to a reduction in aggregate rent increased aggregate profits *pari passu*, with such a redistribution of purchasing power from landlords to farmers leaving aggregate expenditure unaffected:

The general profits of stock depend wholly on the profits of the last portion of capital employed on the land; if, therefore, landlords were to relinquish the whole of their rents, they would neither raise the general profits of stock, nor lower the price of corn to the consumer. It would have no other effect, as Mr. Malthus has observed, than to enable those farmers, whose lands now pay a rent, to live like gentlemen, and they would have to expend that portion of the general revenue, which now falls to the share of the landlord. (4:21–22)

Rent theory and its logical implications were the bedrock on which Ricardo anchored his endorsement of a free trade policy:

The consideration of those principles [that regulate the rise and fall of rent], together with those which regulate the profit of stock, have convinced me of the policy of leaving the importation of corn unrestricted by law. (4:9)

Accordingly, the challenge Ricardo faced in the *Essay* was how to demonstrate that Malthus's 1815 endorsement of protectionism derived *uniquely* from "arguments almost unanswerable respecting the danger of dependence on foreign countries" (4:26), that is, from his overvaluation of the political risks arising from foreign corn dependence in times of war or poor harvest abroad:

From the general principle set forth in all Mr. Malthus's publications, I am persuaded that he holds the same opinion as far as profit and wealth are concerned with the question; but, viewing, as he does, the danger as formidable of depending on foreign supply for a large portion of our food, he considers it wise, on the whole, to restrict importation. Not participating with him in those fears, and perhaps estimating the advantages of a cheap price of corn at a higher value, I have come to a different conclusion. Some of the objections urged in his last publication, "Grounds of an Opinion" &c. I have endeavoured to answer; they appear to me unconnected with the political danger he apprehends, and to be inconsistent with the general doctrines of the advantages of a free trade, which he has himself, by his writings, so ably contributed to establish. . . . *It is, then, the dangers of dependence on foreign supply for any considerable quantity of our food, which can alone be opposed to the many advantages which, circumstanced as we are, would attend the importation of corn.* These dangers do not admit of being very correctly estimated, they are in some degree, matters of opinion and cannot like the advantages on the other side, be reduced to accurate calculation. (4:9, 27; our italics)

Ricardo's counterargument developed through the following chain of reasoning. Malthus assumed that France, Britain's traditional enemy, would become by far the largest corn supplier to Great Britain, if the latter were to allow the free import of cheap foreign corn. By contrast, Ricardo maintained that Great Britain could avail itself of a plurality of trading partners, besides France. Implicit in Ricardo's argument was the assumption that many corn-producing countries had so far had few incentives to cultivate intensively the whole of their fertile lands and no incentive to

invest additional capital in their agricultural sectors. The main culprit of such a lack of incentives, Ricardo argued, was precisely the British Corn Laws, since they made the British demand for corn in the international corn market extremely variable and thus hard to predict *ex ante*. Conversely, were Great Britain to make a credible commitment to free trade and enact legislation allowing the free importation of foreign corn whenever its domestic market price exceeded the international market price—and not only in times of very poor domestic harvests and abnormally high domestic market prices—then Great Britain would certainly become a large *and* regular net corn-importing country. As a consequence, the variance in the British demand for corn on the international corn market would fall sharply, and foreign investment in corn-producing capacity would become highly profitable:

If we became a *regularly importing country*, and foreigners could *confidently* rely on the demand of our market, *much more land would be cultivated in the corn countries with a view to exportation*. . . . In contemplating a trade in corn, unshackled by restrictions on importation, and a consequent supply from France, and other countries, where it can be brought to market, at a price not much above half that at which we can ourselves produce it on some of our poorer lands, *Mr Malthus does not sufficiently allow for the greater quantity of corn, which would be grown abroad, if importation was to become the settled policy of this country*. There cannot be the least doubt that if the corn countries could depend on the markets of England for a regular demand, if they could be perfectly secure that our laws, respecting the corn trade, would not be repeatedly vacillating between bounties, restrictions, and prohibitions, a much larger supply would be grown, and the danger of a greatly diminished exportation, in consequence of bad seasons, would be less likely to occur. *Countries which have never yet supplied us, might, if our policy was fixed, afford us a considerable quantity*. (4:27–28, 30; our italics)

The consequent increase in the number of British trading partners and, therefore, the diversification of Great Britain's sources of corn supply would drastically reduce the likelihood of an international production of corn insufficient to match British food requirements. That is to say, in Ricardo's view, the worldwide variance of corn harvests was a decreasing function of the number of corn-producing countries tied by trade relations (4:31).

Ricardo then turned to an analysis of the political argument raised by Malthus in his protectionist essay: the dangerous dependence on foreign corn supply if any protection of British agriculture were repealed. Ricardo's criticism of Malthus's natural security issue was based on the following three assumptions. First, agricultural investment was largely a sunk cost. Second, Great Britain would become a quasi-monopsonist in the international corn market, if it were to adopt a free trade policy. Third, in every country, the domestic market price of corn was highly sensitive with respect to (positive or negative) market excess demand. A small excess (deficiency) in the quantity produced would cause a sharp fall (rise) in the market price of corn.⁸

When we consider the value of even a few weeks [*sic*] consumption of corn in England, no interruption could be given to the export trade, if the continent supplied us with any considerable quantity of corn, without the most extensively ruinous commercial distress—distress which no sovereign, or combination of sovereigns, would be willing to inflict on their people; and, if willing, it would be a measure to which probably no people would submit. It was the endeavour of Bonaparte to prevent the exportation of the raw produce of Russia, more than [any] other cause which produced the astonishing efforts of the people of that country against the most powerful force perhaps ever assembled to subjugate a nation. *The immense capital which would be employed on the land, could not be withdrawn suddenly, and under such circumstances, without immense loss; besides which, the glut of corn in their markets, which would affect their whole supply, and lower its value beyond calculation;* the failure of those returns, which are essential in all commercial adventures, would occasion a scene of wide spreading ruin, which if a country would patiently endure, would render it unfit to wage war with any prospect of success. (4:28: our italics)

8. In the *Essay* Ricardo (1951–73, 4:28–29, 30) wrote, “The effects of plenty or scarcity, in the price of corn, are incalculably greater than in proportion to the increase or deficiency of quantity. . . . The exchangeable value of corn does not rise in proportion only to the deficiency of supply, but two, three, four, times as much, according to the amount of the deficiency.” Ricardo devoted the whole of section 4, “On the Effect of Abundant Crops on the Price of Corn,” of his 1822 essay, *On Protection to Agriculture*, to the issue of the sensitiveness of the market price of corn: “When the quantity of corn at market, from a succession of good crops, is abundant, it falls in price, not in the same proportion as the quantity exceeds the ordinary demand, but very considerably more. . . . No principle can be better established, than that a small excess of quantity operates very powerfully on price. This is true of all commodities; but of none can it be so certainly asserted as of corn, which forms the principal article of the food of the people” (4:134).

And again: even “Bonaparte, when he was most hostile to us, permitted the exportation of corn to England by licenses, when our prices were high from a bad harvest, even when all other commerce was prohibited” (4:29). Hence, Ricardo’s chain of reasoning implied that if Great Britain were able to make a credible commitment to free trade, foreign corn-producing countries would be very unlikely to cut their corn exports to Great Britain in case of a war or to make up for a deficient domestic harvest. Ricardo’s appeal to the British Parliament not to enact protectionist legislation derived from his reasoned guess on the equilibrium trade strategy of foreign corn-producing countries:

Would it be wise then to legislate with the view of preventing an evil which might never occur; and to ward off a *most improbable* danger, sacrifice annually a revenue of some millions? (4:29–30; our italics)

While Ricardo disagreed with Malthus on the likelihood of the adoption of corn export restrictions by foreign countries, he concurred with him that a sudden abolition of the Corn Laws would lead to the financial bankruptcy of those British farmers who, by growing corn on marginal, less fertile plots of land, could not withstand the competition with cheap foreign corn producers. Accordingly, he proposed a temporary tariff protection, to be withdrawn as soon as existing agricultural lease contracts expired (4:33). But he ridiculed any attempt to ground a protectionist argument on the bankruptcy of those British farmers:

[Malthus] dwells with much stress on the losses of agricultural capital, which the country would sustain, by allowing an unrestricted importation. He laments the loss of that which by the course of events has become of no use to us, and by the employment of which we actually lose. We might just as fairly have been told, when the steam-engine, or Mr. Arkwright’s cotton-machine, was brought to perfection, that it would be wrong to adopt the use of them, because the value of the old clumsy machinery would be lost to us. (4:33)

The above was not an extemporary joke: exactly the same argument was restated by Ricardo at the conclusion of the *Essay* (4:41) and also in the penultimate paragraph of chapter 19, “On Sudden Changes in the Channels of Trade,” of his *Principles* (1:271).⁹

9. As noted by John E. King (2013, 68), Ricardo often used such a rhetorical device, which amounts to “a variant of the classical *reductio ad absurdum* principle: if you are prepared to accept policy X, [Ricardo] would ask his opponents, why not also endorse the (much more obviously obnoxious) policy Y, which could be defended by the same argument?”

4. An Assessment of the Debate

As the previous sections have clarified, from a strictly theoretical point of view Malthus and Ricardo were both supporters of a free trade policy. The roots of the difference between them may be traced back largely, although not exclusively, to their different views of the political situation of post-Waterloo Europe. Two historical facts are strikingly relevant to comprehend Malthus's 1815 protectionism. One was the large-scale embargo against British trade, known as the Continental Blockade, which Napoleon had imposed on the allied and defeated countries since 1806. Although this embargo ended with Napoleon's first abdication, France enacted a restrictive legislation on its corn export. And this was the second fact, explicitly mentioned by Malthus. These two facts, in Malthus's view, gave decisive weight to Smith's dictum concerning the wisdom of the Navigation Act: "Defence . . . is of much more importance than opulence" (Smith [1776] 1976, IV.ii.30).

Making use of game-theoretical terminology, it can be claimed that in Malthus's view, the international trade between a manufacturing and an agricultural country could be formalized as a coordination game characterized by the existence of two pure-strategy Nash equilibria: free trade and autarky. The free trade equilibrium has a higher payoff in terms of profits and capital accumulation, but is more risky in terms of national security than the autarky equilibrium. Malthus ([1815] 1986) endorsed food autarky for the manufacturing country, since he feared that the agricultural country might adopt a restrictive corn export policy in case of war or a poor domestic harvest. Accordingly, in his view it was safer for the manufacturing country to continue growing its own corn supply in order to meet its average food requirements. Malthus's argument can be analyzed by making use of figure 1 representing the hypothetical payoff matrix of two countries, say, Great Britain and France. In each of the four boxes the first number represents the payoff to France whereas the second number represents the payoff to Great Britain. Obviously the payoff obtained by a country choosing autarky is independent of the choice of the other country. Hence any country that chooses autarky is sure to obtain a payoff of 5, whereas any country that chooses free trade obtains a payoff of 10 *if and only if* the other country chooses free trade as well; otherwise it obtains a payoff of 0. Thus, unlike autarky, choosing free trade is a risky decision. Malthus's version of the international trade game is a variant of the so-called stag hunt game, famously first proposed by Jean-Jacques Rousseau in his *Discourse on the Origin and Foundations of Inequality*

		Great Britain			
		Free trade		Autarky	
France	Free trade	10	10	0	5
	Autarky	5	0	5	5

Figure 1 Payoffs of the (simultaneous) coordination game

among Men ([1755] 2011, 71), in which either of the two players has a safe option, which is a payoff that can be gained without the other player’s cooperation (see Bowles 2004, chap. 1).

A Nash equilibrium (that is, a situation in which no player is induced to change her chosen strategy, given the strategy chosen by the other player) is obtained when either both players choose free trade or both players choose autarky, but the autarky equilibrium is Pareto-dominated by the free trade equilibrium: both countries are worse off in the former than in the latter equilibrium.

Ricardo adopted a different perspective. As a matter of fact, the Continental Blockade was not sustainable. Ricardo (1951–73, 4:29) in his *Essay* stated explicitly that Napoleon himself permitted the exportation of corn to England by licenses. Moreover, it was well-known that Russia initially participated in the embargo; but, its participation turning out to be too

costly, Russia reopened trade with Great Britain in 1810. The enforcement of the embargo triggered the French invasion of Russia in 1812, which dramatically undermined French hegemony in Europe. Accordingly, Ricardo argued that even if corn-export restrictions could be enacted by an agricultural country, such a restrictive trade policy could not long be sustained. A fortiori a sudden turn toward a protectionist policy was not sustainable if free trade expectations had induced foreign farmers to make substantial agricultural investments that could not easily be recouped and if other agricultural countries had started trading with Great Britain.

As much as that of Malthus, Ricardo's argument may likewise be rationally reconstructed by means of game-theoretical concepts. Thus the strategic interaction between Great Britain and foreign corn-producing countries, as depicted by Ricardo, can be interpreted as a coordination game with two pure-strategy Nash equilibria: autarky and free trade. The difference between Malthus and Ricardo is that in Ricardo's setting, the international trade game had a distinctive sequential nature: if the British Parliament were to abolish (enact) restrictive legislation on foreign corn imports, foreign countries would find it (un)profitable to enter into a free trade relationship with Great Britain. This is shown in figure 2, representing the same hypothetical payoffs to the two countries considered in figure 1, with the difference that now the two countries do not make their choices simultaneously, but consecutively: Great Britain moves first and the agricultural country, as a second mover, is able to observe Great Britain's choice. If Great Britain chooses autarky, the agricultural country has no other choice than autarky, with the result that both countries obtain a payoff of 5. If, on the contrary, Great Britain chooses free trade, the corn-producing country may choose either autarky, obtaining a payoff of 5, or free trade, obtaining a payoff of 10, and since $5 < 10$, free trade is actually the agricultural country's rational choice. As a consequence, if Great Britain chooses free trade (and the other player is rational), it will obtain a payoff of 10, whereas if Great Britain chooses autarky, it will obtain a payoff of 5.

Games that exhibit multiple pure-strategy Nash equilibria raise the problem of equilibrium selection, that is, "finding rational criteria for choosing *one* particular Nash equilibrium as the solution of the game from the set of all such equilibria" (Harsanyi 1995, 92). One of the simplest refinements of the Nash equilibrium concept is Reinhard Selten's subgame perfection, which narrows the set of plausible solutions of the game by excluding all Nash-equilibria based on noncredible threats. Within Ricardo's variant of

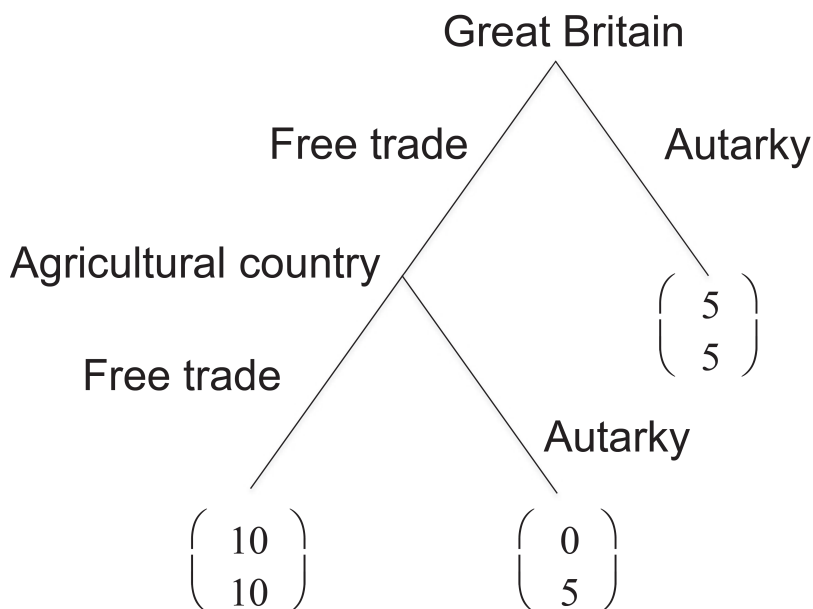


Figure 2 Sequential game

the international trade game, two pure-strategy Nash equilibria still exist, but only one of them is a perfect subgame equilibrium, that is, a Nash equilibrium of every subgame of the original game. (Any subgame of the original game is a game obtained from the original game by taking into account all the moves starting from a node.) The other Nash equilibrium is based on a noncredible threat in the sense that when the player who has made the threat has the opportunity to act, she will not find it advantageous to behave in compliance with her threat. Thus, more than a century before Nash and Selten, Ricardo criticized Malthus's endorsement of a protectionist food policy by arguing that the national security issue raised by Malthus was based on a noncredible threat. In contrast, unlike Malthus, Ricardo claimed that foreign corn-producing countries had no incentive to—and, as a consequence, would not actually—cut their corn exports to Great Britain in case of war or poor domestic harvests. Moreover, Ricardo's argument implied that it was up to the British Parliament to establish whether the world economy should continue to be trapped in the “bad” Nash-equilibrium autarky, or whether it could switch to the superior free-trade equilibrium.

Ricardo had another two strong points to deploy in support of his argument. If Great Britain were credibly committed to free trade, that is, if it had repealed the Corn Laws and had disinvested in its less fertile plots of lands, such a scenario would provide an agricultural country with strong incentives to invest in its agricultural sector so as to increase its corn-producing capacity. This would entail at least two paramount consequences. First, after a few years of free trade, the payoffs both to Great Britain and the agricultural country would change drastically because of the decisions concerning disinvestment/investment respectively; thus the payoffs would become like those displayed in figure 3. Second, other agricultural countries could find it profitable to enter the international scene and supply corn to Great Britain in competition with the first agricultural country. For a proper analysis of the consequences deriving from this second fact a new game is required, as represented for example in figure 4 (with two agricultural countries instead of just one). The dotted line (called the information set by game theorists) indicates that the second agricultural country does not know if it is in the left or the right node. What is important to stress is that with two agricultural countries Great Britain's risk of being cut off from a foreign corn supply in case of war or poor foreign harvests (Malthus's bogeyman!) is sharply reduced, since Great Britain obtains a 0 payoff *if and only if both* agricultural countries choose the autarky strategy.

5. Defense versus Opulence after 1815

As we saw in section 2, the issue of a potential trade-off between defense and opulence is one of the main pillars on which Malthus ([1815] 1986) grounded his support for a protectionist trade policy. By contrast, in his *Principles of Political Economy, Considered with a View to Their Practical Application* ([1836] 1986), the issue was no longer at the forefront of attention. A detailed examination of Malthus's view of international trade in his *Principles* would be beyond the scope of this essay; here, only a few remarks will be put forward.

Right at the start, in the introduction to his *Principles* Malthus outlined his methodological creed. In his view, the conclusions of political economy did not "admit of the same kinds of proof, or lead to the same certain conclusions, as those which relate to figure and number" (Malthus [1836] 1986, 5), and errors and disagreements among economists stemmed basically from "a precipitate attempt to simplify and generalize" (7). By way

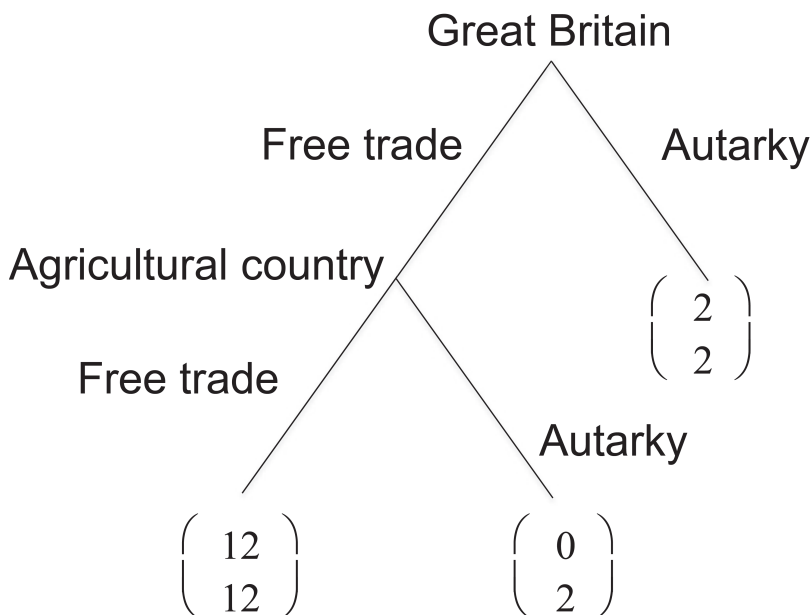


Figure 3 Sequential game in the case of foreign agricultural investment induced by Great Britain's credible commitment to a free trade policy

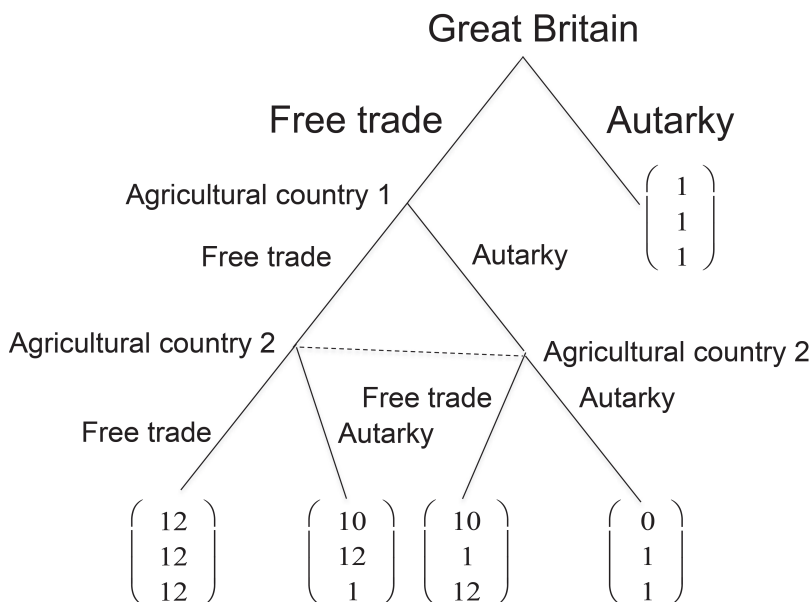


Figure 4 Sequential game in the case of foreign agricultural investment induced by Great Britain's credible commitment to a free trade policy and two agricultural countries

of illustration, Malthus pointed to international trade. On the one hand, he established that the increasing wealth of a country's trading partners contributed to increasing the country's wealth as a "just and general rule" and an "obvious truth." On the other hand, he qualified his assertion by highlighting a glaring exception to the rule, namely, the case of countries that are "successful competitors in those branches of trade in which the particular nation had excelled" (12), and enumerating a few historical examples of such an exception. Note that Malthus did not even mention the issue of national security as an exception to the general rule of mutual gains from free trade.

The same neglect of the national security issue characterized book 2, chapter 1 ("On the Progress of Wealth"), section 8, "Of the Distribution Occasioned by Commerce, Internal and External, Considered as the Means of Increasing the Exchangeable Value of Produce." There Malthus explicitly criticized the analysis of international trade developed by Ricardo in chapter 7, "On Foreign Trade," of his *Principles*. Malthus's own analysis of free trade was based on an elaboration of Smith's "vent for surplus" doctrine and an implicit rejection of Say's law of markets (Malthus [1836] 1986, 309). Malthus first enumerated the main commodities generally imported by Great Britain—"silk, cotton and indigo, tea, sugar, coffee and tobacco, port, sherry, claret and champagne, almonds, raisins, oranges and lemons, various spices and various drugs, and many other articles peculiar to foreign climates"—and then claimed that

the advantage which we derive from [foreign trade] . . . is the simple and obvious one often adverted to as the foundation of every act of barter, whether foreign or domestic, namely, the increased value which results from exchanging what is wanted less for what is wanted more. . . . After we had, by our exports of home commodities, obtained in return all the foreign articles above-mentioned, . . . we should feel quite certain that the new distribution of produce which had taken place, by giving us commodities much better suited to our wants and tastes than those which had been sent away, had decidedly increased the exchangeable value of our possessions, our means of enjoyment, and our wealth. Taking therefore a very different view of the effects of foreign commerce on exchangeable value from Mr. Ricardo, I should bring forward the extension of markets as being, in its general tendency, pre-eminently favourable to that increase of value and wealth which arises from distribution. (316–17)

Once more Malthus made no mention of the national security argument as a potential counterindication to free trade. The only—rather cryptic—passage in Malthus's *Principles* we have been able to find where Malthus hints at arguments close to those developed in his 1815 protectionist pamphlet is the following in book 2, chapter 1 (“On the Progress of Wealth”), section 10, “Application of Some of the Preceding Principles to the Distresses of the Labouring Classes since 1815, with General Observations”:

In regulating these taxes [the customs], it is also natural that those foreign commodities should be taxed the highest, which are either of the same kind as the native commodities which have been taxed, or such as, for special reasons of health, happiness, or safety, it is desirable to grow largely at home. But there seems to be no reason for the absolute prohibition of any commodities whatever; and there is little doubt that, upon this principle, a much greater freedom might be given to foreign commerce, at the same time that a greater revenue might be derived from the customs. I have already stated, in more places than one, why, under all the circumstances of the case, I think it desirable that we should permanently grow nearly our own consumption of corn. But I see no sufficient cause why we should permanently prefer the wines of Portugal and the silks of London to the wines and silks of France. (340)

From the above observations it is not an overstatement to claim that, as far as the international corn trade was concerned, *Principles* and *Grounds* give the impression of having been written by two different authors. A possible explanation may be found in Hollander's (1992, 650) claim that Malthus “as early as 1824 withdrew his support for the prohibitory Corn Laws” (but see Pullen 1995 and Hollander's 1995 reply).

We will now move away from Malthus and focus more closely on Ricardo. The enactment of the new Corn Laws in March 1815 did not discourage Ricardo from stating his case against protectionism. As is well known, in Ricardo's *Principles* the theme of free trade looms large: some of the arguments he had already discussed in the 1815 *Essay* were proposed again and further developed, while some fresh pieces of analysis were introduced for the first time. In particular, in his *Principles* Ricardo stressed the role played by the free importation of cheap foreign corn, which could counteract the long-run decline in the rate of profit provoked by the accumulation of capital and the growth of population in a country where the fertile plots of land were already fully cultivated. For instance, in chapter 6, “On Profits,” Ricardo (1951–73, 1:126) wrote,

In all countries, and all times, profits depend on the quantity of labour requisite to provide necessaries for the labourers, on that land or with that capital which yields no rent. The effects then of accumulation will be different in different countries, and will depend chiefly on the fertility of the land. However extensive a country may be where the land is of a poor quality, and where the importation of food is prohibited, the most moderate accumulations of capital will be attended with great reductions in the rate of profit, and a rapid rise in rent; and on the contrary a small but fertile country, particularly if it freely permits the importation of food, may accumulate a large stock of capital without any great diminution in the rate of profits, or any great increase in the rent of land.

In the same vein, in chapter 7, "On Foreign Trade," Ricardo claimed,

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. If, instead of growing our own corn, or manufacturing the clothing and other necessaries of the labourer, we discover a new market from which we can supply ourselves with these commodities at a cheaper price, wages will fall and profits rise. . . . Foreign trade, then, though highly beneficial to a country, as it increases the amount and variety of the objects on which revenue may be expended, and affords, by the abundance and cheapness of commodities, incentives to saving, and to the accumulation of capital, has no tendency to raise the profits of stock, unless the commodities imported be of that description on which the wages of labour are expended. (1:132–33)

However, a substantial difference must be emphasized between the *Essay* and the *Principles*. In the former, Ricardo made use of an admittedly ad hoc numerical example, the "Table, shewing the Progress of Rent and Profit under an assumed Augmentation of Capital." In the latter Ricardo added to his analysis of free trade an analytical argument, the principle of comparative costs, which was not to be found in the 1815 pamphlet (Chipman 1965, 481). According to Roy Ruffin (2002, 735), Ricardo discovered the principle of comparative advantage sometime between March and October 1816.

Another argument already hinted at in the *Essay* and further developed in the *Principles* is that of the gradual removal of the restrictions to the free importation of foreign corn. Here the reference is to chapter 19, "On Sudden Changes in the Channels of Trade," where Ricardo (1951–73, 1:266–67) wrote,

War, which in a commercial country, interrupts the commerce of States, frequently prevents the exportation of corn from countries where it can be produced with little cost, to others not so favourably situated. Under such circumstances an unusual quantity of capital is drawn to agriculture, and the country which before imported becomes independent of foreign aid. At the termination of the war, the obstacles to importation are removed, and a competition destructive to the homegrower commences, from which he is unable to withdraw, without the sacrifice of a great part of his capital. The best policy of the State would be, to lay a tax, decreasing in amount from time to time, on the importation of foreign corn, for a limited number of years, in order to afford to the homegrower an opportunity to withdraw his capital gradually from the land. In so doing, the country might not be making the most advantageous distribution of its capital, but the temporary tax to which it was subjected, would be for the advantage of a particular class, the distribution of whose capital was highly useful in procuring a supply of food when importation was stopped.

Once more Ricardo proposed a fresh analytical argument to ground his policy proposal as to the timing of the removal of trade restrictions. Before the outbreak of a war the British Parliament should, he maintained, make a credible commitment not to repeal the restrictions on free importation of cheap foreign corn immediately at the end of military hostilities. Such a commitment would have the advantage of meeting the demand for a lowering of farmers' risk premium, that is, the premium demanded by farmers when investing their capital in cultivation of less fertile plots of land. Investment of this type was highly beneficial from the point of view of the country in times of war, when the hostilities made it difficult or even impossible to import corn from abroad, but, at the same time, the investment was highly risky from the point of view of the single farmer, since it would become profitable *if and only if* the high price in the domestic corn market lasted long enough to allow recovery of the sum invested plus the ordinary rate of profits. In effect, farmers were well aware that sums invested in cultivation of the less fertile plots of land were largely sunk and would be almost completely lost as soon as the price of corn on the

domestic market fell back to its previous, prewar level. This accounts for farmers' willingness to invest in the less fertile plots of land, provided the expected rate of return from such an investment included a risk premium over and above the ordinary rate of profits. Of course, the higher the uncertainty as to the duration of war, the higher the risk premium required. Consequently, Ricardo reasoned, the British Parliament's commitment that restrictions on the free importation of foreign corn would be repealed only gradually rather than as a sudden reversal could be seen as a kind of insurance for farmers and, by reducing the risk premium, would incentivize investment in less fertile plots of land (1:267–68).

Be this as it may, in Ricardo's *Principles*, unlike in the *Essay*, no clear reference to the defense-versus-opulence issue can be found. A tentative explanation for Ricardo's silence on this subject in his *Principles* could be the following. The new Corn Laws enacted by the British Parliament in March 1815 closely followed the proposal elaborated by Malthus in his 1815 protectionist essay. Ricardo may have felt that the chances of persuading the British Parliament of the irrelevance of Malthus's national security argument were negligible. Accordingly, he may have thought it best to ground his campaign for a free corn trade in his *Principles* on an elaboration of other elements of the analysis of the *Essay*, that is, on considerations distinct from his demonstration that Malthus's political argument was flawed.

By contrast, the issue of the trade-off between defense and opulence clearly surfaces in one of Ricardo's parliamentary speeches. Thus, in "Agricultural Distress," May 30, 1820 (now in Ricardo 1951–73, 5:47–56), Ricardo critically examined a sequence of arguments put forward by the agriculturists in support of the Corn Laws. The thread of Ricardo's criticisms was that the Corn Laws fostered the economic interest of some well-defined social groups but entailed a deadweight loss for society as a whole. He therefore confirmed his opposition to the Corn Laws and, significantly, to the Navigation Act as well:

Another [of the agriculturists'] arguments was, that as ship-owners and merchants were protected by the navigation laws, and other enactments, so they ought to be protected by prohibitions in return. But he [Ricardo] denied that these protections were of any use to the country. The navigation laws were of no use. Nay, he would allow them to take any trade they pleased, and surround it with protections; the measure might be beneficial to the particular trade, but it must be injurious to the rest of the country. There was no principle more clear than this. (5:51)

Note that Ricardo did not even mention Smith's view that defense was more important than opulence. Ricardo insisted that the Corn Laws led to an abnormally high price in the British domestic corn market, thus depressing the domestic rate of profits and providing British capitalists with strong incentives to invest their capital abroad in the search for a higher rate of profit (5:50). Ricardo reiterated that the basic fault in the Corn Laws was not so much the protection granted to British farmers who, during wartime, invested their capital in the cultivation of the less fertile plots of land, but rather the fact that such protection was not temporary (5:52).

Yet from our point of view the most significant agriculturist argument critically examined by Ricardo was directly concerned with the trade-off between defense and opulence. To confute this argument Ricardo provided a brief but brilliant summary of the analysis already developed in the second part of the *Essay*. The relevant passage deserves a full quotation:

There was another argument [by the agriculturists], which was the most important, because the most plausible argument in favour of the Corn law, viz. the plea that by importing corn, we became dependent on foreign countries. *On the ground of economy* not a word was to be said by any one who had paid attention to the subject, but in the argument that it was desirable that in war this country should not be dependent on another for subsistence, there was a certain degree of plausibility. In answer to this, it was to be said that if we imported corn in time of peace from any one country to a considerable extent, that country must be in the habit of growing corn especially for our consumption. In the event of a war with us, such a country would suffer extreme distress. We knew the effect of an excess, however small, of the supply of corn over the demand in the reduction of the price of this commodity, the consumption of which could not rapidly be increased, and the overplus of which consequently possessed no exchangeable value. All the agricultural distress we complained of would be not one-tenth of what such a country would suffer. But this went on the supposition that all our supply was to be derived from one country, whereas the fact was, that the supply would be derived from a great variety of countries; and was it probable that we should at once be at war with all of them? (5:54–55; our italics)

Note that Ricardo did not deny that corn is an essential commodity in peacetime and a fortiori in wartime or that the political argument raised by the agriculturists presents a *prima facie* plausibility. What he strongly

denied was that the supporters of a policy of food autarky had analyzed the issue from the point of view of economic theory. To counteract the political argument raised by the agriculturists Ricardo insisted that an economic analysis of the international trade between a manufacturing and an agricultural country (or a set of agricultural countries) deprives the agriculturists' political argument of much of its plausibility. Of course, to make sense of Ricardo's analysis, an implicit assumption must be granted, namely, that the joint probability of (1) Great Britain being at war simultaneously with all agricultural countries and (2) all agricultural countries complying with an agreement to stop exporting corn to Great Britain was negligible.

6. Malthus, Ricardo, and the Previous Literature on the Trade-Off between Defense and Opulence

Obviously, it is beyond the scope of this article to provide a thorough assessment of the protectionist literature before Malthus's *Grounds*. A few remarks must suffice. As acutely noted by Albert O. Hirschman (1945, 4–12), the mercantilist approach to foreign trade involved no trade-off between defense and (trade-induced) opulence. Quite the contrary: foreign trade was considered to be conducive to an increase of relative military power, that is, the military power of a given country in relation to the military power of its trading partners. In fact, in a mercantilist setup, a given country's foreign trade had to be so engineered as to generate a persistent trade surplus and a persistent gold inflow and, by the same token, a persistent gold outflow from trading partners. As a consequence, the country in question would become persistently richer and better able to wage long and expensive wars while the opposite would hold true for its trading partners.

Hume and Smith debunked various mercantilist fallacies such as the identification of a country's wealth with gold, the view of international trade as an inherently conflictual relationship in which one trader gains what another loses, and the endorsement of a persistent trade surplus policy. On the other hand, Smith's analysis of international trade involved the unpleasant corollary of a potential trade-off between defense and opulence: if international trade was a powerful growth-enhancing factor for all the trading countries, then, by becoming wealthier, all trading countries would also acquire greater military power: a country's domestic security and the adoption of free trade could become conflicting policy goals. Hirschman (1945, 5) fittingly remarks that "the Navigation Laws

were indeed the only governmental interference with economic life in England to escape [Smith's] criticism." Smith ([1776] 1976, IV.ii.24) emphasized that "the Act of Navigation . . . endeavours to give the sailors and shipping of Great Britain the monopoly of the trade of their own country in some cases by absolute prohibitions and in others by heavy burdens upon the shipping of foreign countries." Accordingly, this act promoted the training of a large number of sailors and the building of many ships: in Smith's words, "the defence of Great Britain . . . depends very much upon the number of its sailors and shipping" (IV.ii.24). Smith was aware that the Navigation Act adversely affected the ability of foreign countries to purchase British commodities, thus reducing the extension of British exports and, as a consequence, damaging British prosperity. But on the other hand, he found no inconsistency between his endorsement of the navigation laws and his glorification of the virtues of free trade since, in his view, the increase in national security outweighed the decrease in domestic wealth:

The act of navigation is not favourable to foreign commerce, or to the growth of that opulence which can arise from it. The interest of a nation in its commercial relations to foreign nations is, like that of a merchant with regard to the different people with whom he deals, to buy as cheap and to sell as dear as possible. But it will be most likely to buy cheap, when by the most perfect freedom of trade it encourages all nations to bring to it the goods which it has occasion to purchase; and, for the same reason, it will be most likely to sell dear, when its markets are thus filled with the greatest number of buyers. . . . But if foreigners, either by prohibitions or high duties, are hindered from coming to sell, they cannot always afford to come to buy; because coming without a cargo, they must lose the freight from their own country to Great Britain. By diminishing the number of sellers, therefore, we necessarily diminish that of buyers, and are thus likely not only to buy foreign goods dearer, but to sell our own cheaper, than if there was a more perfect freedom of trade. *As defence, however, is of much more importance than opulence*, the act of navigation is, perhaps, the wisest of all the commercial regulations of England. (IV.ii.30; our italics)

By the same token, Smith was by no means reluctant to acknowledge that in peacetime the wealth of an exporting country like Great Britain benefited positively from the wealth of its neighbors, while the opposite held true upon the outbreak of war:

The wealth of a neighbouring nation, however, though dangerous in war and politics, is certainly advantageous in trade. In a state of hostility it may enable our enemies to maintain fleets and armies superior to our own; but in a state of peace and commerce it must likewise enable them to exchange with us to a greater value, and to afford a better market, either for the immediate produce of our own industry, or for whatever is purchased with that produce. (IV.iii.40)

The Smithian warning on the potential trade-off between defense and opulence resonated within Malthus, who explicitly equated the logic underlying the food autarky policy with that of the Navigation Act:

A government may certainly see sufficient reasons for wishing to secure an independent supply of grain. This is a definite, and may be a desirable object of the same nature as the Navigation Act. (Malthus [1815] 1986, 173)

Malthus developed the issue of defense versus opulence in a direction partially different from that of Smith. Smith saw in the Navigation Act a way to ensure the training of sailors and the building of ships in peacetime, which would then turn out to be useful in wartime. Malthus claimed that the availability of a sufficient and safe supply of food was a key asset in the case of war, no less than the amount of trained sailors and ships directly used in the military activities.

Ricardo maintained that the national security issue could not survive strict economic scrutiny. Accordingly, he developed his criticism of the national security issue exclusively on economic grounds. He made the point that free trade created a mutual dependence among trading countries: in a free trade scenario Great Britain would largely depend on foreign corn imports in order to meet its average food requirement, while, at the same time, the foreign agricultural country's economy would largely depend on its corn exports to Great Britain. If such exports were suddenly to cease, the domestic corn market of the agricultural country would be glutted and its domestic market price of corn would collapse: the agricultural country's economy would thus experience a serious downturn. Moreover, the economic damage resulting from a sudden decision by an agricultural country to cease exporting corn to Great Britain would be much greater for such a country than for Great Britain, as the latter, by adopting free trade, could diversify its international sources of corn supply and thus minimize the probability of a corn deficiency in case of war with one agricultural country.

Paraphrasing a famous sentence by Adam Smith, Ricardo's argument can be summarized by the statement that, in his view, it was not from the benevolence of foreign agricultural countries that the people of Great Britain expected their dinner, but from their regard to their own interest. Malthus would have agreed but would have limited the validity of the argument to peacetime. The aim of Ricardo's argument was that of showing to Malthus that such a principle remained true even during wartime.

7. Final Remarks

In their 1815 essays, *Grounds* and *Essay*, both Malthus and Ricardo considered free trade and autarky as possible outcomes of the trade relationship between Great Britain and foreign corn-producing countries. Moreover, both Malthus and Ricardo put forward arguments that implied that Great Britain and foreign corn-producing countries were better off if they both adopted a free trade policy. This notwithstanding, Malthus was strongly concerned about the prospect of agricultural countries adopting a restrictive export policy in times of war or poor domestic harvest. Hence, he maintained that it was safer for Great Britain to continue to grow its own corn supply in order to meet its average food requirements. By contrast, Ricardo argued that once Great Britain had adopted a free trade policy, foreign agricultural countries would find it advantageous to increase their corn production capacity so as to match the increased British demand for corn. Once these agricultural investments were carried out, their potential threat to induce a drastic cut in corn exports during times of war or poor domestic harvests was a noncredible threat: foreign agricultural countries would be locked into their trade relationship with Great Britain, given the sunk cost nature of agricultural investments and the role of the quasi-monopsonist that, in Ricardo's analysis, Great Britain would play in the international corn market. Accordingly, within the theoretical world of Ricardo's *Essay*, free trade was the only equilibrium that, more than 150 years later, Selten would christen as subgame perfect.

Malthus envisaged defense and opulence as two mutually alternative options and, if required to make a choice, he had no hesitation in choosing the former. By contrast, Ricardo excluded any alternative between defense and opulence: even in the case of a war or poor domestic harvest, foreign agricultural countries would be seriously damaged, and thus unable to wage a war, if they opted for a restriction of their corn exports to Great Britain.

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