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Protecting the infant industry

Cosmopolitan versus nationalist economists

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Cosmopolitan economics

The essence of "cosmopolitan economics", according to Friedrich List (who coined the expression) consists of a series of beliefs whereby – to list just a few – "the way to give the economy the most powerful stimulus [is] to leave it alone. Agriculture and industrial production and commerce should be left to private enterprise. Government intervention would only guide industry and capital into less profitable channels… A government that wishes to increase national prosperity had only to free production and foreign trade from all restrictions" (List, 1983, p. 22). It is cosmopolitan economics in the sense that it assumes that all sovereign countries – which Mother Nature has endowed differently – compete on an equal footing and should, therefore, for the sake of cultural and climatic diversity, be free to interact and exchange products in a brotherly fashion with one another, in the name of progress and increased total, international, welfare. The words of Adam Smith and John Stuart Mill truly incarnate and best exemplify the vision encapsulated in such thought. It is to them that we now turn.

Adam Smith

> We do not, however, reckon that trade disadvantageous which consists in the exchange of the hardware of England for the wines of France (Adam Smith).

In chapter II of book IV of *An Inquiry into the Nature and Causes of the Wealth of Nations* (Smith, 1976), Smith sets forth his influential argumentarium and lays the basis for the discussion concerning the appropriateness of public intervention in economic matters – namely in foreign and domestic trade, which was a hotly debated issue among scholars and policy makers of his time. Here is how Smith introduces the question:

> As every individual…endeavors as much as he can both to employ his capital in the support of domestick industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it…By directing [his] industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of his intention. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it (Smith, 1976, book IV, chapter II, p. 456).

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Here we find the famous description of the working of the "invisible hand", paraphrased by its exponents as the unintentional consequences of human action, leading to the improved welfare of the community. The invisible hand is Smith's most influential metaphor: it justifies self-interest and egoism, and therefore, by giving its unconditional blessing to the newborn legion of zealous merchants (notwithstanding occasional, contemptuous utterances on the latter), is designed to clear their souls – and those of modern men in general – of any real sense of wrongdoing as *members of a social aggregate*. In other words, we are not claiming that Smith's intention is to murder morality; but he encouraged a behaviour which, by its very preconization, may weaken civic spirit and undermine man's social commitments to his community.

The invisible hand symbolizes what early British economic thinkers saw as *natural*, impersonal forces which organized and co-ordinated human beings in their "trucking and bartering". The "field" generated by such forces is the market. By engaging in unfettered trade and caring primarily about their own, personal returns, men would be harmoniously guided along a virtuous path of growth which could not fail to benefit society as a whole. The invisible hand would work smoothly as long as no restrictions hamper trade; but as soon as men of state start to meddle with the benign sparks of market processes, problems arise:

> What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can, in its local situation, judge much better than any statesman or lawgiver can do for him. The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it (Smith, 1976, book IV, chapter II, p. 456).

This is the ultimate rejection of Colbertism, or (one may say) Economic Platonism: for, according to Smith, there is no such thing as a class of (golden) men *who know*; that is, who know more than others, and who should accordingly, by reason of their higher knowledge, govern the state (and the economy); this is folly. Let men follow their own hunches and information, Smith argues, and the country will become prosperous; let the invisible hand take the place of the philosopher king, let a benevolent "force" rule, let the people entrust their enterprises with British providence rather than with the whimsical decisions of a perhaps well-intentioned but incompletely informed ruler, let all these changes happen and the community will triumph, as will its riches. But why would the result of an action wrought from a governing body be so disastrous for the economy? Smith's first argument is based on the character of information. However benevolent or nobly-intentioned the statesman, he claims, many economic decisions are better made by private citizens and better co-ordinated by market processes, because of informational deficiencies of the former.

> The sovereign is completely discharged from a duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human knowledge or wisdom could ever be sufficient; the duty of superintending the interest of private people, and of directing it towards the employment most suitable to the interests of society (Smith, 1976, book IV, chapter IX, p. 208).

Smith's second argument is rooted in incentives. He claims that:

> Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society which he has in view. But the study of his own advantage naturally, or necessarily leads him to prefer that employment which is most advantageous to the society (Smith, 1976, book IV, chapter II, p. 475).

Smith gives two examples of this second, capital allocation, argument. First, "every individual" has an incentive "to employ his capital as near home as he can", provided that he receives "ordinary" or near-ordinary profit, and thereby gives maximum "support of domestic industry". Next, within domestic allocation of capital, "every individual…necessarily endeavors so to direct that industry, that its produce may be of the greatest possible value". It is this incentives system that entices "every individual" to "necessarily labour" to make the "exchangeable value of the annual produce…as great as he can" (Smith, 1976, book IV, chapter II, pp. 475-7).

Smith's third argument extends the notion of monopoly and its associated inefficiencies to restrictions on imports:

> To give the monopoly of the home-market to the produce of domestic industry, in any particular art or manufacture, is in some measure to direct private people in what manner they ought to employ their capitals, and must, in all cases, be either a useless or hurtful regulation. If the produce of domestic can be brought there as cheap as that of foreign industry, the regulation is evidently useless. If it cannot, it must generally be hurtful. It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than buy. The taylor does not attempt to make his shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own cloths, but employs a taylor…*What is prudence in the conduct of every private family, can scarce be folly that of a great kingdom*. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. [The domestic industry] is certainly not employed to the greatest advantage, when it is thus directed towards an object which it can buy cheaper than it can make…[This commodity] could, therefore, have been purchased [abroad] with a part only of the commodities…which would have been produced at home, had [the domestic industry] been left to follow its *natural course* (Smith, 1976, book IV, chapter II, pp. 456-7; emphasis added).

Two salient aspects of Smith's thought can be found in this famous passage. The first is the analogy between the "prudent" household economics and the policy of the kingdom. Smith here has an essentially *micro* perception of economic phenomena, "micro" in the sense that basic economic behaviour is conceived as being purely atomistic; the protagonist of the economic scene is the individual who, armed with his information and self-love, makes the nation thrive when his enterprise is crowned with success. The individual is not only a single entity, he is also a belligerent, for there is a multitude of other individuals ready to play the same game. The invisible hand which is supposed to give this *bellum omnium contra omnes* a happy ending, performs the duty of a *deus ex machina*, for there is no deep explanation of coherence and harmony among human beings in this picture of economic life. One really wonders what the gestation of prosperity looks like: indeed, it remains a bit of a mystery. Thus, the aggregate outlook – the *macro* perspective proper – is obtained by simply adding up the individual agents: the whole is the sum of the actions of individual components.

Second, Smith makes great use of the adjective "natural" (natural state, natural course, natural rate, natural price, etc.). This is a common trait of those writers adhering to the precepts of the Enlightenment and to the general body of naturalistic doctrines elaborated in the eighteenth century. In the above passage, Smith does not specify what is the "natural course" a certain country should follow at a given point in time. The term is vague and lends itself to easy manipulations. What he had in mind, however, is clearly stated in Ricardo's *Principles of Political Economy*: "And it is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland and that hardware and other goods shall be manufactured in England" (Ricardo, 1992, p. 81). This argumentation is sensible and entirely in the spirit of Smith; moreover it leads us directly to the issue of the infant industry:

> By means of such regulations, indeed, a particular manufacture may be sometimes acquired sooner than it could have been otherwise, and after a certain time may be made at home as cheap or cheaper than in the foreign country. But though the industry of the society may be thus carried with advantage into a particular channel sooner than it could have been otherwise, it will by no means follow that the sum total, either of its industry, or of its revenue, can ever be augmented by any such regulation. The industry of the society can augment only in proportion to what can be gradually saved out of its revenue. But the immediate effect of every such regulation is to diminish its revenue, and what diminishes its revenue, is certainly not very likely to augment its capital faster than it would have augmented of its own accord, had both capital and industry been left to find out their natural employments (Smith, 1976, book IV, chapter. II, p. 458).

The "infant industry" argument is much older than Smith. A very lucid statement of the problem can be found in chapter 15 of Cantillon's *Essay*, with which Smith was familiar. The "nationalistic" tone which pervades the passage, where the idea is expressed is particularly fascinating, for it anticipates the intensity of the duel which was going to be fought by free traders and protectionists. In Cantillon's words, "if landlords…were willing to consume exclusively the manufactures of their country, no matter how inferior and cheap these would be in the beginning, they would nevertheless contribute to their gradual improvement, and, furthermore, they would keep a relevant number of people employed, instead of giving such advantage to the foreigner ..." (Cantillon, 1979, pp. 95-6)[1]. Cosmopolitan theorists shudder at the *hubris* which blinds the proponents of the "infant industry" experiment. To them they are "artificial" rather than "infant" industries:

> The natural advantages which one country has over another in producing particular commodities are sometimes so great, that it is acknowledged by all the world to be in vain to struggle with them. By means of glasses, hotbeds, and hotwalls, very good grapes can be raised in Scotland, and very good wine too can be made of them at about 30 times the expense for which at least equally good can be brought from foreign countries. Would it be a reasonable law to prohibit the importation of all foreign wines, merely to encourage the making of claret and burgundy in Scotland? But if there would be a manifest absurdity in turning towards any employment, 30 times more of the capital and industry of the country, than would be necessary to purchase from foreign countries an equal quantity of the commodities wanted, there must be an absurdity, though not altogether so glaring, yet exactly of the same kind, in turning toward any such employment a thirtieth, or even a three hundredth part more of either. Whether the advantages which one country has over another, the natural or acquired, is in this respect of no consequence. As long as the one country has those advantages, and the other wants them, it will always be more advantageous for the latter, rather to buy of the former than to make. It is an acquired advantage, only, which one artificer has over his neighbor, who exercises another trade; and yet they both find it more advantageous to buy of one another, than to make what does not belong to their particular trades (Smith, 1976, book IV, chapter II, pp. 458-9).

Very subtle: it is indeed all the more surprising that Smith formulates the problem so hazily, given the clarity of his predecessor: what the infant industry argument implies is the crucial notion of the "learning-by-doing" process, whereby, as time passes and men improve a certain manufacturing technique, they are able to expand the scale of production, and as they produce more and acquire more knowledge, they improve throughput and continuously abate the average cost of production. Thus Smith's rejection of the infant industry argument is far from definitive. First, Smith allows for the possibility that the protected commodity may eventually be produced more cheaply than in the foreign country. If this dynamic benefit outweighs the extra costs during the period of the commodity's infancy, then infant industry protection could be dynamically rational in Smith's own terms. Second, for Smith, learning by doing is integral to the benefits of division of labour, and thereby may reinforce the argument of an exception for infant industries. Third, Smith's position on infant industries is blurred by his caution, that is, by reference to the "immediate" (as opposed to total or overall) effect of protection and use of equivocal language, such as "certainly not very likely to augment its capital faster…" in contrast to the unequivocal language of Edwin Cannon's marginal synopsis: but this earlier establishment of the infant industry "would make capital accumulation slower" (Cannon, in Smith, book IV, chapter II, p. 479). Indeed, some interpreters of Smith (e.g. Blaug, 1985) cite the infant industry case as an exception to Smith's general argument in favour of free trade.

Now, if one is to assume, as did the protectionists, that the real wealth of a nation lies in its scientific and manufacturing stock, as contrasted with Smith's per capita annual flow of the consumption of "necessaries and conveniencies", then it follows that to promote manufacturing power in a developing country, the newly created industries may need to be shielded temporarily from foreign competition. Protected firms will interact with one another and with the agricultural sector by supplying – at the initial stages of development – goods of coarse quality in exchange for produce; but as time elapses and the learning process is triggered, manufactures improve, costs go down and national revenue increases; eventually technology spills into other sectors of the economy and revenue continues to rise in an ever-growing virtuous spiralling mode. Finally, the industry reaches maturity and is thus ready to compete with its once superior neighbours. Tariffs can now be removed.

To Smith, this line of reasoning is nonsensical, for the flexible nature of commercial promises and the adaptability and ingenuity of human beings, both evolving under the benevolent guidance of a *natural* order and in accordance with the *natural* endowments of Mother Earth, will assure the fluidity of the virtuous cycle of self-interested exchange.

Strong opposition to public intervention in trade matters remains an indisputable article of faith in Smith's conception of the social realm. However, in the same chapter, he contemplates two exceptions:

> There seem…to be two cases in which it will generally be advantageous to lay some burden upon foreign, for the encouragement of domestic industry.
>
> The first is when some particular sort of industry is necessary for the defence of the country. The defence of Great Britain, for example, depends very much upon the number of its sailors and shipping. The Act of Navigation [the prohibition applied to all foreign goods which could not be imported except in British ships, not only to "bulky articles of importation"], therefore, very properly 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 (Smith, 1976, book IV, chapter II, p. 463).

By considering these possible exceptions (the second will be mentioned later on), Smith finds himself in a very critical position, for he is taking the risk of seeing his theoretical construction topple at once. In fact, if it is generally accepted (even by a strong free trader like Smith) that it is "advantageous to lay some burden upon the foreign", "when some particular sort of industry is *necessary* for the defence of the country", a critic may be very tempted to shatter the empty box labelled "natural course" with Ockam's razor and terminate the onslaught by fitting what he thinks is the single, most fundamental instance of economic prosperity in the "necessary" category. In other words, his syllogism would be: if the "natural course" is the same for all countries, i.e. if a manufacturing system is the ultimate goal of all societies, as the nationalists would argue; and if the establishment of such a system is a necessary condition for the safety (defence) of a nation ("not to be at the mercy of foreigners" as Cantillon would argue), then protection is the "natural"(!) state of affairs, and it is justified much more widely.

What we have just reached at this juncture of the analysis is the crux of the polemics; the pretextual appeal to "national defence" forms the weak link of the free traders' argument: protectionists, whose most resonant recrimination has been now partly foreshadowed, will in fact try to dissipate the teleological smokescreen of *laissez-faire* and redefine the co-ordinates of the problems originated by commercial exchange between England and the rest of the world.

As we shall see when their position is examined below, the focus is far more on the policies *effectively* pursued by nations and their presumed repercussions than on transcendental motives (the working of the "invisible hand") which supposedly govern the inexorable patterns of production and distribution.

Smith, however, by making the "natural advantages of countries" the pivot of his trade prescriptions, bypasses the obstacle, and yet is all the more pleased to make a few concessions to the reader by earnestly acknowledging the detrimental effects of protection:

> 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 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 (Smith, 1976, book IV, chapter II, pp. 464-5).

Smith goes on to show that:

> the second case, in which it will generally be advantageous to lay some burden upon foreign for the encouragement of domestic industry, is when some tax is imposed at home upon the produce of the latter. In this case, it seems reasonable that an equal tax should be imposed upon the like producer of the former. This would not give the monopoly of the home market to domestic industry, nor turn towards a particular employment a greater share of the stock and labour of the country, than what would naturally go to it. It would only hinder any part of what would naturally go to it from being turned away by the tax, into a less natural direction, and would leave competition between foreign and domestic industry after the tax, as nearly as possible upon the same footing as before it. In Great Britain, when any such tax is laid upon the produce of domestic industry, it is usual at the same time, in order to stop the clamorous complaints of our merchants and manufacturers, that they will be undersold at home, to lay a much heavier duty upon the importation of all foreign goods of the same kind (Smith, 1976, book IV, chapter II, p. 465).

The argument follows from his assumptions and it is a straightforward variation on the theme of "the natural course". Of more interest is that part of the chapter where Smith reconsiders the question of the "infant industry" from a different angle, and – in answering it – appears much less confident than he was in the first section of the chapter:

> The case in which it may sometimes be a matter of deliberation, how far, or in what manner it is proper to restore the free importation of foreign goods, after it has been for some time interrupted, is, when particular manufactures, by means of high duties or prohibition upon all foreign goods which can come into competition with them, have been so far extended as to employ a great multitude of hands. Humanity may in this case require that the freedom of trade should be restored only by slow gradations, and with a good deal of reserve and circumspection. Were those high duties and prohibitions taken away all at once, cheaper foreign goods of the same kind might be poured so fast into the home market, as to deprive all at once many thousands of our people of their ordinary employment and means of subsistence. The disorder which this would occasion might be no doubt very considerable (Smith, 1976, book IV, chapter II, pp. 468-9).

The case Smith is describing is in all respects equivalent to the "infant industry" argument, the only difference being that he is considering the resumption of competition before the learning process is achieved. In other words, the question becomes what happens when the "catch-up" policy is interrupted, and the industry is still vulnerable? The problem, pointed out earlier, is serious, and the unemployment that is likely to result may obviously have severe repercussions on the health of the economy. According to Smith, such disorder, "however, would in all probability be much less than is commonly imagined", because he presupposes that all those workers who have been laid off, as a consequence of such "interrupted gestation", would automatically be channelled into more profitable industries. As a matter of fact, "something" must warrant (and Smith implicitly assumes it does) that if some sectors decline, others should be growing, indeed: "To the greater part of manufactures…there are collateral manufactures of so similar a nature, that a workman can easily transfer his industry from one of them to another" (Smith, 1976, book IV, chapter II, p. 470).

John Stuart Mill

> The principal fund at present available for supplying this country [England] with a yearly increasing importation of food, is that portion of the annual savings of America which has heretofore been applied to increasing the manufacturing establishments of the United States, and which free trade in corn may possibly divert from that purpose to growing food for our own market (Mill, 1987).

Mill discusses the issue of protectionism in the first part of chapter X of book V, entitled *Of Interference of Government Grounded on Erroneous Theories*. The field, in his opinion – as the title says – swarms with a multitude of misconceptions about international and domestic trade. "Of these false theories, the most notable is the doctrine of Protection to Native Industry; a phrase meaning the prohibition, or the discouragement by heavy duties, of such foreign commodities as are capable of being produced at home…The theory was, that to buy things produced at home was a national benefit, and the introduction of foreign commodities generally a national loss" (Mill, 1987, p. 917).

The shortest reply to such a contention a classical economist can make bears on the Smithian notion of "natural advantage", whereby trade is organized and oriented according to the "natural" endowments (presumably both physical and material) of the countries involved. As a matter of fact, "… the importation of foreign goods, in the common course of traffic, never takes place, except when it is, economically speaking, a national good, by causing the same amount of commodities to be obtained at smaller cost of labour and capital to the country. To prohibit, therefore, this importation, or impose duties which prevent it, is to render the labour and capital of the country less efficient in production than they would otherwise be; and compel a waste of the difference between the labour and capital for producing the things with which it can be purchased from abroad" (Mill, 1987, p. 917). The idea of a natural configuration of different "advantages" which, according to this theory, is the prime mover of trade among countries, permeates the entire passage. It is by the standards of such a criterion that the labour and capital employed in a certain sector of the economy are deemed *more or less efficient*: their criterion, indeed, is nothing but the principle of *laissez-faire*, which warrants the spontaneous ramification of trade as it actually develops, free from state intervention.

Mill, therefore, rejects the doctrine of Protectionism: "Defeated as a general theory, the protectionist doctrine finds support in some particular cases, from considerations which, when really in point, involve greater interests than mere saving of labour; the interests of national subsistence and of national defence". National defence is again synonymous with the Navigation Act; like Smith, Mill pledges allegiance to the Crown: "the Navigation Laws were grounded, in theory and profession, on the necessity of keeping up a 'nursery of seamen' for the navy. On this last subject I at once admit, that the object is worth the sacrifice; and that a country exposed to invasion by sea, if it cannot otherwise have sufficient ships and sailors of its own to secure the means of manning in an emergency an adequate fleet, is quite right in obtaining those means, even at an uneconomical sacrifice in point of cheapness in transport" (Mill, 1987, p. 920).

With regard to subsistence, Mill argues (1987, p. 921) that when, "in cases of actual or apprehended scarcity, many countries of Europe…stop the exportation of food", they do not tend to follow a sound policy because such artificial choking off of the natural channels of trade would end up by shattering the price system. The duty of the price system is in this respect fundamental, especially from a humanitarian viewpoint, since by signalling any significant differentials in the prices of grain (as a measure of scarcity) among the various countries, it would convey the commodity where it is most needed: "if the price rose in one country more than in others, it would be a proof that in that country the scarcity was severest, and that by permitting food to go freely thither from any other country, it would be spared from a less urgent necessity to relieve a greater. When the interests, therefore, of all countries are considered, free exportation is desirable" (Mill, 1987, p. 921). Although the logic of this argument is impeccable, still it is highly abstract: Mill does not seem to be interested at all in what the actual policies and strategic routines of governments are under the circumstances he has envisaged. The ideal working of the price system is yet another metaphor of the Principle of Free Trade.

We now come to the "infant industry" argument:

> The only case in which, on mere principles of political economy, protecting duties can be defensible, is when they are imposed temporarily (especially in a young and rising nation) in hopes of naturalizing a foreign industry, in itself perfectly suitable to the circumstance of the country. The superiority of one country over another in a branch of production often arises only from having begun it sooner. There may be no inherent advantage on one part, or disadvantage on the other, but only a present superiority of acquired skilled and experience. A country which has this skill and experience yet to acquire, may in other respects be better adapted to the production than those which were earlier in the field…But it cannot be expected that individuals should, at their own risk, or rather to their certain loss, introduce a new manufacture, and bear the burthen of carrying it on until the producers have been educated up to the level of those with whom the processes are traditional. A protecting duty,

> continued for a reasonable time, might sometimes be the least inconvenient mode in which the nation can tax itself for the support of such an experiment. But it is essential that the protection should be confined to cases in which there is good ground of assurance that the industry which it fosters will after a time be able to dispense with it; nor should the domestic producers ever be allowed to expect that it will be continued to them beyond the time necessary for a fair trial of what they are capable of accomplishing (Mill, 1987, p. 922).

This passage is very interesting for a number of reasons. First of all, the "infant industry" argument is very well stated; the idea of "learning-by-doing" is fully understood. Moreover, in this description, Mill parts, for a moment, with Smith's far more conservative view; and such separation, albeit understated and very soon retreated from, marks a significant moment of Mill's economic analysis. In addition, this paragraph anticipated, in a very impressionistic fashion, Schumpeter's *Theory of Economic Development*: the idea of innovation is there, and so is that of imitation, especially when he mentions the high costs the pioneer will have to bear, before some imitator eventually steals his pathbreaking "combination", takes advantage of his early experiments and, finally, ousts him from the market.

Thus, Mill, given a number of provisos (reasonable time, guarantee of success, no protracted and wasteful funding of the project), seems to accept some form of "wise" protection. But when it comes to the emotional debate on the nature of the relationship between Great Britain and American Colonies, he reverts unconditionally to the creed of free trade (the theory of the "natural advantages" and *laissez-faire*). The conflict, as we have learned from Smith, is expressed in terms of agriculture (the natural course of the Colonies) versus manufacturing (the natural course of the Motherland). The dialectic takes up on the work of the American economist H.C. Carey (one of the most adamant and rigorous of the opposing protectionist faction; see Carey, 1967, pp. 57 ff.) who argues "that by a trade of this description [American produce in exchange for British wares], they [the Americans] actually send away their soil: the distant consumers not giving back to the land of the country, as home consumers would do, the fertilizing elements which they abstract from it" (Carey, 1967, p. 923). The idea Carey is trying to convey is also present in Cantillon's *Essay* (chapter 15) where, after he has computed some rather rough, yet fundamental measure (in terms of acres) of subsistence for an average labourer, he goes on to show, with a simple example, how the basic bilateral trade scheme "produce vs. wares" leads to the methodic exploitation of the agricultural country: "If the *dames* of Paris love to wear the lace of Brussels, and France is to purchase the lace with Champagne wine, it will be necessary to pay the product of a single acre sown with flax seed with the produce of more than sixteen thousand acres of vineyards, if my calculations are correct … One is now compelled to observe that, under such terms of trade, the French are deprived of a significant portion of their agricultural produce, and that all staple goods shipped to foreign countries, without receiving in exchange an equal amount of products, will cause a decrease in the population of a country" (Cantillon, 1979, p. 97). Indeed, the predominantly agrarian country has to give increasing quantities of raw goods (which translate into an expanding cultivated surface) in exchange for manufactured goods, whose measure in terms of acres is much smaller (it is represented only by the subsistence of the workers), the remaining part of the price agreed on being, for the manufacturer, just value-added. Value-added is indeed another way of expressing the power of technology, the thrust of human manufacturing capabilities. Mill, however, holds on to the theory of the natural advantage with all his might and fails to recognize this crucial aspect: “That the immense growth of raw produce in America to be consumed in Europe is progressively exhausting the soil of the Eastern, and even of the older Western States, and that both are already far less productive than formerly, is credible in itself, even if no one bore witness to it. But…free trade does not compel America to export corn: she would cease to do so if it ceased to be to her advantage” (Mill, 1987, p. 924). Now, the “produce vs. wares” trade cannot possibly have anything to do with the concept of “advantage”; it arises out of necessity: the relatively more backward (agricultural) country has no other way to provide herself with those manufactured goods than by putting a strain on her physical productivity. Again, trade arises out of necessity. The industrialized country, instead, has the upper hand in setting the rules of the game. Her wares command more labour and more land, for they are the fruit of research and application aimed at solution of fundamental problems of human life. It is known that poor states, because of their very indigence and destitution, crave these wares: and this is how the best known of all power imbalances of the economic realm is created.

If, indeed, the claim that the US soil is “already far less productive than formerly, is credible in itself, even if no one bore witness to it”, as Mill reports, then, the problem which confronted US farmers during the first decades of the nineteenth century was a serious, even disastrous one, according to the chronicles and anecdotes of the time. The brief review of the protectionists' writings that follows, will explain why.

Mill’s resort to the scheme of “the natural advantage” finally betrayed the inadequacy of classical political economy by showing very clearly where was Her Majesty’s Achillean heel and how to overcome it: the feat could have been accomplished by recognizing and consequently fostering, in countries that were bereft of it, the power of a fully developed and ramified manufacturing system.

National economics

Friedrich List

> Industry is the mother and father of science, literature, the arts, enlightenment, freedom, useful institutions, and national power and independence (List, 1991).

What is then the true nature of “cosmopolitan economics”? Why was it created? Why is it such a source of misapprehensions? Why does the *Wealth of Nations* begin with a celebration of the wonders of the division of labour and then end up by preconizing for US colonies the adoption of a thorough and purely agrarian system of development?

From the protectionists' viewpoint, cosmopolitan economics is nothing but a cunning allegory extolling the deeds of nascent giant *commercial* organizations, a fable told to hide the ongoing dynamics of exploitation inflicted by *merchants* on the rest of society.

> …Adam Smith, his disciples, and his successors have denounced every prohibition, every restriction, and every high import or export duty imposed to protect industry. They admit that, in present circumstance, the immediate total abolition of all commercial restrictions is impossible, but they urge the gradual removal of such restrictions. Merchants all over the world think only of their own private interests and agree with the theorists who advocate free trade but they make no effort to examine the validity of the arguments put forward in support of this fiscal policy. Since the profit of the merchants comes simply from exchanging products, they regard all imposts and restrictions as bad for business and they have invented and given their allegiance to the motto: "*laissez-faire et laissez-passer*" – except for shipowners who consider bounties and privileges to be essential for merchant shipping…because – so they say – there can be no navy without a mercantile marine (List, 1983, pp. 22-3).

First of all, to protectionists, it is clear that *laissez-faire* benefits chiefly merchants, that is *exchangers*: they are the ones who long for unfettered trade. And it was, in fact, one of Carey's most powerful insights (Carey, 1967, pp. 57 ff.) to show how England's economic physiognomy had gradually shifted from that of a producer to that of an exchanger. Thus, given that the canons of free trade seem to conceal the vested interests of a very well defined social group, if one were to associate this mercantile alliance with the policies and negotiations encouraged by a particular country – in this case England – then, the intellectual joust would irremediably shed its chivalric vestment and assume the colours of international warfare. Indeed, the confrontation under investigation was (and still is today) a matter of "Economic War and Imperialism".

"Defence", again: *laissez-faire et laissez-passer* provided such cherished economic freedom does not encroach on the sacred duty of the national navy. In the quotation at the beginning of this section, List refers evidently to Smith's first exception to unhampered exchange: not only does he recriminate against the exorbitant privileges the Crown granted itself through the Navigation Act, but he also prepares and tends the logical terrain on which to erect the foundations of protectionism. It is by illustrating what the commercial routines of Great Britain are, that List unravels the mystifications of classical Liberalism and thereby assesses the formidable strength a country derives from a manufacturing system.

> Sensible impartial observers have to admit that although England preaches free trade, she practices something very different. What England means by free trade is the right to sell freely all over the world both her own manufactured goods and the produce of her colonies while at the same time she erects hostile tariff barriers to prevent foreign goods from competing with her own products in the home market. It must in fairness be admitted that the way in which England treats the rest of the world is no different from the way in which other nations treat their weaker neighbors who are in no position to retaliate. There is therefore a real danger that the strongest nations will use the motto "Free Trade" as an excuse to adopt a policy which will certainly enable them to dominate the trade and industry of weaker countries and reduce them to a condition of slavery. All over the world people misuse the term

"Free Trade". They use it to deceive people while lining their own pockets under the cloak of patriotism…Inside a country the policy of free trade is beneficial provided that it simply means that citizens are free to manufacture what they please and are not restricted when moving their produce from one place to another. Indeed it is the equivalent of commercial slavery. Free trade in this sense – if introduced unilaterally – permits foreign competitors to ruin native industry while denying to native manufacturers the right to compete in equal terms with foreign rivals in markets abroad. Such freedom leaves us to the tender mercies of foreigners! (List, 1983, pp. 24-5).

What this excerpt implies is that *not* all countries are *equal*, leaving their natural endowments aside. "Not equal", that is, not as competitive; and this competitive edge stems from the jealous possession of a very peculiar "tool" – a tool which can easily be turned into a ruinous weapon, namely *technology*. The latter manifests itself through the use of machinery which churns out wares with great precision and in large batches, wares and goods that, in the course of human and social evolution, "from luxuries have become the necessaries of life" (Carey, 1967, p. 55). They are the utensils and instruments devised to enhance the comfort and leisure of human existence. New discoveries spread rapidly and soon become indispensable elements of everyday life, indispensable wares. It follows that the country which controls technology and machinery has a tremendous advantage over the country which does not: this is actually the gist of international economic contention. The direct conclusion of such argumentation is that developing countries, in order not to be eternally subjugated by industrialized neighbours, must themselves make that fundamental transition to a manufacturing system, so as to break the monopoly of machinery and concomitantly close the "technological gap" the more advanced nations take advantage of. The following passage – very modern in spirit – is probably one of the best descriptions of "technological competition", viewed from the Nationalist perspective:

…The manufactures of the dominant manufacturing countries who sell their products in extensive markets all over the world will feel the urge to exploit the invention as quickly as possible and snatch it from under the noses of the manufacturers of the relatively backward industrial countries so as to produce goods even more cheaply than before. This would enable them to widen their market and to make bigger profits. The expenses incurred being the first in the field would be more than covered by additional profits earned later. The capital at their disposal and their ability to raise loans would make it possible for them to make financial sacrifices so as to be able to exploit a new invention. On the other hand the manufacturers in a relatively backward industrial country would still be paying off their initial capital and would not be able to raise additional capital either by using their own resources or by borrowing in the open market. Consequently they would not be in a position to exploit the invention. In this way it could happen that a large part of the industry of a less advanced nation might collapse simply because a more advanced state was able to exploit a new invention a few years before a weaker rival could do so (List, 1983, pp. 74-5).

The naturalistic brotherhood of free trade can only be achieved if every single country avails itself of a similar technological standard so that it will not have to exhaust its natural resources in order to secure the needed wares. Protectionists constantly remind the reader that, alas, we do not live in a peaceful Arcadia and that the world is divided into a:

> number of different states, each with its particular national characteristics. Each individual – be he a manufacturer, farmer, merchant, professional man, or pensioner – is a member of the country in which he lives. The state protects him and helps him to achieve the aims that he pursues as an individual. Individuals owe to a nation their culture, their language, their opportunity to work, and the safety of their property…As yet no universal republic exists (List, 1983, p. 30).

A "world republic", for instance, had been envisaged by J.B. Say. List would have surely argued that such a proposition had been uttered tongue in cheek: a "world republic" is a figment. In practice, the debate *is* doubtless one of economic warfare. The clash is really not about the prosaic egotism of the butcher versus Christian *agape*, nor does it concern the working of the invisible hand as opposed to the artisanship sponsored by Colbert; instead, it revolves around resources, security, energy and the economic routines attended to win these spoils. List's vision is not entirely pessimistic though, since he does not deny that such a republic will eventually come about one day; that day, however, given the political scenario of his time (1837), seems very far removed:

> So far there are only a few people, even in the most enlightened countries, who have grasped the fact that perpetual peace and universal free trade are both desirable and necessary. Nations have not yet attained a state of political and social development which would make such a reform possible. Moreover the civilized and enlightened countries in the world cannot be expected to disarm and to renounce warfare so long as there are in existence powers which reject the ideas of peaceful prosperity for the whole human race and are bent upon conquering and enslaving other nations (List, 1983, pp. 30-31).

List, in his broader scheme, contemplates the "nation" from two different angles: first, he considers the nation as a "sovereign political body"; second, as a "branch of human society". From the latter point of view, he is willing to concede that cosmopolitan economics is the right approach, but he then goes on to specify that "universal free trade between all the countries in the world is only in the very earliest stage of development. Nations can only move slowly, step by step, towards the attainment of world free trade. They can do so only insofar as it is advantageous and not disadvantageous for them to adopt such a policy" (List, 1983, p. 31). Therefore the time to honour the principles of cosmopolitan economics is postponed until the contenders are able to nurture, rear and fully develop opportune technological infrastructures. The key to such "catching-up" is protection, under the aegis of competent authorities. This is core *national economics*:

> The doctrine of national economics teaches us that a country which hopes to attain the highest degree of independence, culture and material prosperity, should adopt every measure within its power to defend its economic security from any foreign attack, whether such an attack takes the form of hostile legislation or military action. To enable a country to protect itself it is essential that *it should establish industries and foster their development* – insofar as this is possible with available physical and human resources (List, 1983, pp. 31-2; emphasis added).

List and his contemporaries were obsessively concerned with the ways and art of war: the chain of events which had shaken Europe and the rest of the globe up to the early nineteenth century helps explain in part the combative bent of the author. But there are deeper reasons:

> The foundations upon which national independence can be built are quite inadequate without the development of industries. A country of farmers and peasants can never maintain the military power – or the human and physical means to defend itself – that can be maintained by an industrialized country. The position of an agrarian country is worsened by the fact that just when it needs to defend itself it may be unable to find markets for its agricultural products and it may thus be deprived of the capital with which to create new industries (List, 1983, p. 32).

The emphasis on *warfare* is of great importance for, in the bellicose apperception of nationalist economists, war is deemed as a recurrent historical precondition for the emergence of (infant) industries in relatively backward countries. The idea is that in peaceful times, the agrarian country uses the foreign industrialized counterpart as an outlet for its surplus produce and gets wares in exchange. When war is declared, access to foreign markets is denied and, therefore, the only way she can provide her citizens with manufactured goods is to produce them herself. She decides to build plants, import machinery and encourage the immigration of skilled craftsmen. The die is cast: the momentous step in the direction of industrialization is irreversibly taken. What next? Eventually the infant industry will start to glide along a comprehensive "learning-by-doing" curve (exponentially decreasing average costs as a function of times and/or quantity) and progressively abate the cost of production. As was evinced by Cantillon, the transition requires some sacrifice on the part of consumers (the vast majority of which are peasants), for the manufactured wares first produced will be of poor quality. The cost of investment incurred when the infant enterprise is launched will obviously make unit costs of the newly produced goods significantly higher than those borne by the rich neighbour; but, as time elapses, learning will help refine the basic operations and thus diminish costs; eventually, by virtue of some path-breaking innovation and the ensuing sequence of technical ameliorations, the young competitor may surpass the old rival. As an old rival, England is a tough one to beat; she "holds the richest colonies in every part of the globe, while her flag dominates the seas of the world. Her trading companies and her fishermen are protected by the world's most powerful navy. And the supremacy of her navy rests upon the size and importance of England's mercantile marine and fisheries. England's powerful foreign trade is not supported by an occasional and uncertain transit trade. It rests on the solid foundation of a gigantic industrial sector of the economy. England's manufacturers are based on highly efficient political and social institutions, powerful machinery, great capital resources, an output larger than that of all other countries, and a complete network of internal transport facilities. England has the largest capital resources in the world, and an immense manufacturing power which can create new wealth and be exchanged for bullion drawn from other countries" (List, 1983, pp. 46-7)[2].

The learning process takes time. If hostilities cease and free trade is resumed, with the infant not yet a grown-up, the experiment is doomed, the infant crushed.

> Manufacturers who acquired the necessary knowledge and experience would settle in foreign countries…Workers would have to learn a new trade, change their jobs, emigrate or sink into a condition of miserable poverty. Nearly all the capital invested in factory buildings, tools and machinery would be lost. The confidence of investors in industrial enterprises would vanish if not for ever at any rate for a long time. There would [be] a dramatic decline in the traffic on the roads, rivers and canals. The output of mines would also decline. All progress would come to an end (List, 1983, p. 74).

This same case, as we have seen, has been contemplated by Smith, yet his conclusions differ drastically from those of List:

> In time of war every country is forced to establish factories to make those goods which were formerly imported from abroad in exchange for products made at home. The result is the same as that achieved by a prohibitive fiscal policy in peace time. The nation is forced to demand great sacrifices from consumers in order to create new industries. And this happens just when the means available for the establishment of manufactures have been reduced to a minimum. If free trade is introduced when hostilities cease the newly established industries will be thrown to the tender mercies of foreign competitors. In these circumstances a country will lose all the capital, all the experience, and all the work of the war years and *will return to its former position of weakness and dependence upon foreigners* (List, 1983, p. 32; emphasis added).

Thus, Say's law is not at all operative in this picture and the providential siphoning of unemployed labour out of declining sectors into growing ones is here challenged and catalogued as yet another episode of the free trade saga (we will return to this point while discussing the Essays of Matthew Carey).

To recapitulate, two fundamental notions of national economics are: first, "in the event of war, or of the threat of war", a Great Power must establish industries. Second, the means to carry into effect the project is a *suitable tariff*, whose object is "to frustrate any hostile action by foreigners to harm a country's economy by political action or acts of war". Now, protectionists do not simply advocate a blind imposition of tariffs on a non-specified array of items; instead, they meticulously proceed and guide their policies on the basis of a series of economic principles. These, according to List, must take into account two factors. "The first is the skill or the physical labour which enable something to be produced. The second is an object that has been produced which can be exchanged for something else and therefore has a value" (List, 1983, p. 34). The first factor embodies the idea of "productive power". Productive power is exerted whenever human ingenuity, after having painfully struggled with the circumstances of nature, solves a particular problem and thus advanced well-being, the knowledge and masterly control over resources. It is indeed a factor of fundamental importance, which should accordingly be given absolute priority. The productive power of a nation is a goal of highest importance. It has to be achieved by all means necessary. Hence, protection, *if* a manufacturing system is seen as the ideal humus to ripen such power, becomes a pillar of national economics. The economic question proper reduces to a constant trade-off between productive power and *exchange value*, the cardinal virtue of cosmopolitan economics. To gain more of one the other must be given up:

> A father who spends his savings to give his children a good education sacrifices [value] but substantially increases the productive powers of the next generation. But a father who invests his savings and neglects to educate his children increases the "exchange value" at his disposal by spending the interest on his capital at the expense of the future productive powers of a country (List, 1983, p. 35).

Learning and productive investment bloom rather slowly and the maturity of productive powers is truly a success story starring the "learning-by-doing" effect: "The result of giving up 'exchange value' for greater productive power is not immediately apparent but it is seen in the increased output of the next generation or even later generations" (List, 1983, p. 35). Cosmopolitan versus national economics, productive power versus exchange value, sheer materialism versus Platonism: the battle continues. As Smith puts it:

> There is one sort of labour which adds to the value of the subject upon which it is bestowed. There is another which has no such effect. The former, as it produces a value, may be called productive; the latter unproductive labour. Thus the labour of a manufacturer adds, generally, to the value of materials which he works upon, that of his own maintenance, and of his master's profit. The labour of a menial servant, on the contrary, adds to the value of nothing…The labour of some of the most respectable orders in society is, like that of menial servants, unproductive of any value, and does not fix or realize itself in any permanent subject, or vendible commodity, which endures after the labour is past, and for which an equal quantity of labour could afterwards be produced…In professions in which there are no benefices [ecclesiastical donations], such as law and physics, if an equal proportion of people were educated at the public expense, the competition would be so great, as to sink very much their pecuniary reward. It might then be not worth any man's while to educate his son to either of those professions at his own expense. They would be entirely abandoned to such as had been educated by those public charities, whose numbers and necessities would oblige them in general to content themselves with a very miserable recompense, to the entire degradation of the now respectable profession of law and physics (Smith, 1976, pp. 330, 148).

Similarly Mill:

> A country would hardly be said to be richer, except by a metaphor, however precious a possession it might have in the genius, the virtues, or the accomplishments of its inhabitants; unless indeed these looked upon as marketable articles, by which it could attract the material wealth of other countries…(Mill, 1987, p. 48).

By contrast, List argues that:

> Anyone who wishes to devote himself to industrial activity – to the production of manufactured goods – should learn and understand something of mathematics and the natural sciences. Schoolmasters and books are needed to enable those engaged in industrial pursuits to make progress in these subjects. As a nation becomes more industrialized it becomes more necessary to secure the services of suitable trained people in the factories and workshops. *Such people are now able to command higher salaries and wages than was formerly possible*…Anyone engaged in industrial pursuits should appreciate that success will depend upon his knowledge of science and upon the new discoveries that are the result of scientific progress (List, 1983, pp. 66-7; emphasis added).

List's line resounds with economic Platonism in that the administration of the *Res Publica* by an élite of scientists – who would be highly rewarded for their services – is very seriously hinted. According to the cosmopolitan creed instead, something, to be valuable, must be material and marketable, and ultimately exchangeable. The intellectual wealth, the learning experience, the arts and expression of a community at a certain point in time are left out of the portrait. Everything seems to be, from the classical theoretical viewpoint, rigidly governed by pecuniary canons of taste.

Exchange and marketability actually represent only a late phase of that physical, emotional and mental struggle between man and nature leading, step by step, to the advancement of the race. Discovery, learning and perfecting – the essential triad of sound economic dynamics – are relatively neglected in the classical argument.

A corollary of marketability occurs in the adage that "one should buy goods in the cheapest market" – the prescription of free trade follows. Classical thinkers believe:

> that it is as absurd for a nation as for an individual to manufacture goods at a higher cost than they could be purchased from foreigners. This is obviously an argument which applies only to a merchant who makes a living by exchanging goods or "exchange value". A merchant is not concerned with the theory of productive power and may indeed be ignorant of its very existence. And Say's argument is not even sound when applied to private individuals for they should always aim at the preservation and growth of their own personal productive power (List, 1983, p. 38).

Hence, trade barriers are to be condemned for they unmistakenly reduce the welfare of consumers. Evidently free traders fail to consider:

> the long term advantages of a policy of protection. If it were foolish to make short term sacrifices for long term gains it would be a mistake to plant pear trees and sensible to buy pears since the cost of planting trees is so high that every pear picked at the end of the first year would be more expensive than a basket of pears bought in the market. To this sort of doctrinaire argument a practical farmer would reply that he does not plant a tree to reap the crop that it will bear at the end of first year. He plants a tree to gather the pears that it will bear for a hundred years. The cost of planting a tree should be compared with the fruit it will bear throughout its life. And a nation establishes industries not for a hundred years but for the whole period of its existence (List, 1983, p. 38).

The logic of the argument is straightforward and the clear reference to a "non-competitive" stage of development may lead one to interpret it as yet another application of the learning process. Furthermore, protectionists, in their effort to shield newborn, costly industries, had to pay serious attention to the mood of the "rural community": it was in fact in their favour – to win them to their cause – that propagandists pleaded the cause of free trade. Yet the nationalists' counter argument went as follows:

> At first industrialists will not be able to supply the rural community with manufactured goods which are as cheap or as good as those supplied by foreigners. But in time, by improving methods of production, they will be able to do so. The industrialists will not at first be able to compensate the rural community for all the losses sustained by the interruption of its contacts with foreign markets. The rural community will not buy from native industries as many manufactured goods as it formerly purchased from abroad and it will have to pay higher prices for home produced goods of poorer quality. So those who work on the land will suffer a double loss. In time, however, the situation will change. Stimulated by wartime conditions and

> by the new profits which they are making, the native manufacturers will begin to compete among themselves. When this happens the rural community will appreciate that it has on its own doorstep new home industries which will one day be far more useful to it than the foreign manufacturers with whom they formerly dealt. Those who work on the land will realize that they now secure manufactured goods from a stable source and that these products will be available in wartime as well as in peace time (List, 1983, p. 57).

Two points are worth noticing here. First, List insists on the issue of security and the policy recommended is constantly visioned in martial terms:

- the breaking out of hostilities brusquely cuts off the *debouches* for the agricultural products;
- young, ambitious manufacturers seize the opportunity to cross the Rubicon of industrialization; and
- once the "infant" has weathered the storm, a prosperous covenant between farmers and capitalists finally buttresses the effigy of the nation: *in case of another conflict*, the native, and now mature, manufacturers will cater to the farmers, as in a unitary microcosm of production and distribution.

Second, the blossoming of the infant industry – and the associated cost-abatement strategy – is here made dependent not only on the joint operation of the learning process and the imposition of tariffs, but also on a third organic flow, namely the growth of an articulate sector comprising several competitors engaged in similar crafts. These are, in brief, some of the aspects of the interpretative model of economic development most nineteenth century protectionists adhered to. Nowadays they will certainly have to be reformulated in terms of the multifarious geographical ententes and complex business alliances that cross a world which has radically changed from List's times. Yet today, as in the early decades of the nineteenth century, the opinion of farmers matters.

> The agrarian sector of the economy has to decide upon what attitude it should, in its own interest, adopt with regard to the claims of merchants engaged in foreign commerce and of industrialists engaged in producing manufactured goods at home. Those who work in the land hold the balance of power between these rival claims [cosmopolitan vs. national economics]. Whichever side it supports will be the victor (List, 1983, p. 58).

At this point, we have come to another fundamental proposition of national economics, namely the asserted natural *convergence of the interests of industry and agriculture*: the two sectors should indeed proceed and grow hand in hand. Initially – in the warlike framework of national economists – agriculture is supposed to lend a hand to the limping infant industry; later on, in the course of economic development, when the cannons decide to roar again, the grown-up manufacturer shall gratefully provide the care and assistance to his old agrarian fellow overburdened with surplus produce. Now, when native manufacturers have gained the complete control of a country's industrial structure and harmoniously co-operate with the agricultural sector, the national system reaches its climax. Some of the consequences are as follows:

- drastic reduction of transportation costs which makes produce dearer in the industrial home market (than in the foreign one) and, which is equivalent, native manufactured goods cheaper (than foreign ones);
- increased appreciation and valuation of natural resources and materials (under the stimulus of voracious developing infant industries);
- frantic quest for cheap fuel and alternative sources of energy, and the concomitant and fundamental *development of a highly efficient and smooth transportation network*;
- significant technological advances – boosted by the great amounts of earthly and physical energy absorbed by "productive power" – in both the agrarian and industrial sectors: "The greater the advance in scientific knowledge, the more numerous will be the new inventions which save labour and raw materials and lead to the discovery of new products and processes. As those engaged in industry become more familiar with the advances made in scientific knowledge the more quickly and the more successfully will new discoveries and inventions be applied to industry in a practical way" (List, 1983, p. 67);
- capital expansion, loans and monetary booms.

In his *The National System of Political Economy*, first published in 1841, List provided both a critique of the classical political economy of Adam Smith and his popularizes (whom he called "the school") and important qualifications of his own arguments. Classical political economy, he argued:

> suffers from three main defects: firstly, from boundless *cosmopolitanism*, which neither recognizes the principle of nationality, nor takes into consideration the satisfaction of its interests; secondly, from a dead *materialism*, which everywhere regards chiefly the mere exchangeable value of things, without taking into consideration the mental and political, the present and the future interests, and the productive powers of the nation; thirdly, from a *disorganizing particularism and individualism*, which, ignoring the nature and character of social labour and the operation of the union of powers in their higher consequences, considers private industry only as it would develop itself under a state of free interchange with society (i.e., with the whole human race) were that race not divided into separate national societies (List, 1991, p. 174).

In between the individual and humanity as a whole, however, List insists, "stands *the nation*, with its special language and literature", its "peculiar origin and history", and its "customs, laws, and institutions ...". The "task of national economy" is achieve the "*economical development of the nation*, and to prepare it for admission into the universal society of the future". List continues:

> Nations pass through developmental stages, namely, barbaric, pastoral, agricultural, agricultural-manufacturing, and agricultural-manufacturing-commercial. Not all nations are

> destined to advance through all stages, however. Requisite conditions for full advancement include a "large population", and "extensive territory endowed with manifold natural resources", and a temperate climate (List, 1991, pp. 174-7).

Germany was List's prime example of a society which potentially could proceed to the highest stage of development, but only if its industries were provided with protection from the adverse competition from England, based on its head start.

The second and third elements in List's critique of classical political economy are intimately linked. On the one hand, the key to economic development is acceleration of the nation's powers of production, as contrasted to mere exchange values. On the other, productive powers, notably science, education, and political institutions, require the participation and leadership of governmental authority. Indeed, "in a thousand cases", the "State is not merely justified in imposing, but bound to impose certain regulations and restrictions on commerce…in the best interests of the nation" (List, 1991, pp. 166-7). Recognizing the claims of future generations and the distinction between productive powers and exchange values, for example, List rejects Smith's dictum (Smith, 1976, book IV, chapter 2) that "what is prudence in the conduct of every private family can scarce be folly in that of a great kingdom" (List, 1991, p. 163).

List, like Smith before him, qualifies his generalizations in significant ways. First, the "system of protection can be justified solely and only for the purpose of the industrial development of the nation". If, after a reasonable period of time, protection does not enable a society like Germany to catch up with Great Britain, protective duties should be abandoned. Second, if the manufacturing society is in its early period of development, protective duties "must be very moderate" and must "rise gradually", to calibrate the withdrawal of competitive pressure from abroad to the lowest extent needed to achieve the desired target of domestic development of modern manufacturing. Third, if this strategy is successful over the long run (List estimates about 50 years as a reasonable period of protection), protection should then be phased out. Fourth, some societies, as noted earlier, for example, countries with tropical climates whose comparative advantage in agricultural products is overwhelming and who lack the population, territorial size, and natural resource diversity for robust development, are not good candidates for a protective strategy in the first place. Moreover, fifth, even in societies suited for protective policy, it is not necessary that "all branches of industry be protected in the same degree. Only the most important branches require special protection". If these "main branches are suitably protected and developed, all other less important branches will rise up around them under a less degree of protection" (List, 1991, p. 179), based on externalities generated by the main, more heavily protected, sectors. Finally, List restricts a protective policy to manufacturing. Agriculture (as in Smith's example of the wines of southern France) should operate according to classical free trade principles.

Alexander Hamilton

> In countries where there is great private wealth, much may be effected by the voluntary contributions of patriotic individuals; but in a community situated like that of the United States, the public purse must supply the deficiency of private resource. In what can it be so useful, as in prompting and improving the efforts of industry? (Hamilton, 1964).

"The *Report on Manufactures*…was perhaps Hamilton's most important state paper. It was intended as the culmination of his economic programme and it is the clearest statement of his economic philosophy" (Cooke, 1964, p. 4).

Alexander Hamilton's *Report on Manufactures* (1791) is considered the Manifesto of American Industrialization; it stood out as the economic spear of the Declaration of Independence; and it proved to be the blueprint for America's emancipation from British domination. And to US patriots, the latter was inextricably associated with *The Wealth of Nations*.

Although Adam Smith certainly was not the *first* economist on earth, *The Wealth of Nations* was made by the merchants' oligarchy into the Ancient Testament of Capitalism. It worked its way through the dawn of the Industrial Revolution as the Book of Books. In other words, it happened to be "the anthology of the ruling Superpower" at "that historical divide that marked the beginning of the bourgeois revolution (by virtue of which money and business were going to blur national – as well as psychological – boundaries)". For these two main reasons, *The Wealth of Nations* came to be regarded as the *first*, real, complete and systematic economics treatise of modern times; and Adam Smith the founding father of the "science".

Hence, if the Crown's authority had to be challenged in commercial matters, critics had to turn to *The Wealth of Nations*, and so did Hamilton. His goal, like that of List, was to have the nation develop its own manufacturing system and consequently close the "technological gap" with England. To convince Congress and doctrinaires, the inconsistencies of Smith had to be carefully sifted. One of these is the sharp contrast between the inception of volume I, where Smith extols the wonders of the division of labour and manufacturing, and his bucolic ode to the loftier occupation of the farmer:

> Not only the art of the farmer, the general direction of the operations of husbandry, but many inferior branches of country labour require much more skill and experience than the greater part of mechanic trades. The man who works upon brass and iron, works with instruments and upon materials of which the temper is always the same, or very nearly the same. But the man who ploughs the ground with a team of horses or oxen, works with instruments of which the health, strength, and temper are very different upon different occasion…His [the ploughman's] understanding, however, being accustomed to consider a great variety of objects, is generally much superior to that of the other [the mechanic], whose whole attention from morning till night is commonly occupied in performing one or two very simple operations (Smith, 1976, pp. 143-4).

After having heavily objected to the alleged superiority of agriculture to industrial capitalism in his general critique of physiocracy (Smith, 1976, book IV, chapter IX), Smith resorts to a physiocratic argument to pay lip service to the superior powers of nature:

> The capital employed in agriculture…not only puts into motion a greater quantity of productive labour than any equal capital employed in manufactures, but in proportion too to the quantity of productive labour which it employs, it adds a much greater value to annual produce of the land and labour of the country, to the real wealth and revenue of its inhabitants, of all the ways in which a capital can be employed, it is by far the most advantageous to the society (Smith, 1976, p. 364).

Why is this so? Because of rent – the *product net* – the old physiocratic notion. Rent "is the work of nature which remains after deducting or compensating every thing which can be regarded as the work of man…No equal quantity of productive labour employed in manufactures can ever occasion so great a reproduction" (Smith, 1976, p. 364). The implication of all this in the ambit of foreign policy is that colonies – especially the USA – should stick to the Arcadian ideal and not fancy the more perilous arena of manufacturing:

> It has been the principal cause of the rapid progress of our American colonies towards wealth and greatness, that almost their whole capitals have hitherto been employed in agriculture. They have no manufactures…The greater part both of exportation and coasting trade of America, is carried on by the capitals of merchants who reside in Great Britain…Were the Americans, either by combination or by any other sort of violence, to stop the importation of European manufactures, and, by thus giving a monopoly to such of their own countrymen as could manufacture the like goods, divert any considerable part of their capital into this employment, they would retard instead of accelerating the further increase in the value of their annual produce, and would obstruct instead of promoting the progress of their country towards real wealth and greatness. This would be still more the case, were they to attempt, in the same manner, to monopolize to themselves their whole exportation trade (Smith, 1976, p. 366).

Now it is Hamilton's turn to reply. As a believer in the "productive power" of the nation, he refuses to recognize the superior power of agriculture: first, "it is in great measure periodical and occasional, depending on seasons". Second:

> It is also probable, that there are among the cultivators of land, more examples of remissness, than among artificers. The farmer, from the peculiar fertility of his land, or some other favorable circumstance, may frequently obtain a livelihood, even with a considerable degree of carelessness in the mode of cultivation; but the artisan can with difficulty effect the same object, without exerting himself pretty equally with all those who are engaged in the same pursuit. And if it may likewise be assumed as a fact, that manufacturers open a wider field to exertions of ingenuity than agriculture, it would not be a strained conjecture, that the labour employed in the former, being at once more *constant*, more uniform and more ingenious, than that which is employed in the latter, will be found, at the same time more productive (Hamilton, 1964, p. 122).

Third, rent: the distinction whereby "labour employed in manufactures yields nothing equivalent to the rent of land, or to the net surplus – as it is called…appears rather *verbal* than *substantial*" (Hamilton, 1964, p. 122). The physiocratic school would argue that in the agricultural cycle of production and distribution, there would be both an ordinary profit that goes to the farmer, and a rent, which is handed over to the landlord; no such bipartite miraculous surplus arises in manufacturing, where only the ordinary profit appears. Now, says Hamilton, one arrives at formulating such an allegation only by playing around with words, for, if we are to consider land as a type of capital, then both agriculture and manufacturing would yield a *single* rate of return on the total amount advanced (capital), so that, in reality, both sectors work precisely in the same way. Agriculture is surreptitiously attributed an extraordinary power which it does not possess at all. "The rent of the landlord and the profit of the farmer are therefore nothing more than the ordinary profits of two capitals belonging to two different persons, and united in the cultivation of a farm" (Hamilton, 1964, p. 122). Now that the stage is cleared of any equivocal, taxonomic concepts one can objectively compare the productiveness of both sectors, assess their joint operation and brood over the spread of technology and machinery in the USA. After having praised the advantages of the division of labour, Hamilton reminds congressmen how disadvantageous are the terms of trade with England for national produce, and what a potent remedy to such imbalance the establishment of manufactures would be. The admonitions of Adam Smith echo gloomily in the Treasury: "Industry, if left to itself, will naturally find its way to the most useful and profitable employment". Hamilton heeds:

> Against the solidity of this hypothesis, in the full latitude of the terms, very cogent reasons may be offered. These have relation to the strong influence of habit and the spirit of imitation, the fear of want of success in untried enterprises, the intrinsic difficulties incident to first essays towards a competition with those who have previously attained to perfection in the business to be attempted, the bounties, premiums and other artificial encouragements, with which foreign nations second the exertions of their own Citizens in the branches, in which they are to be rivalled (Hamilton, 1964, p. 140).

Once again, the dogma of the "natural course" is set at defiance; Hamilton's discussion hinges on the peculiar nature of manufacturing processes. The vision is very insightful and strikingly modern: the passage just quoted could have been written by Schumpeter; not only, like Mill, does Hamilton have a clear idea of the phenomena analysed, but he anticipates the essential quality of the Theory of Economic Development, in that he recognizes the inertial presence of habits and customs, as an obstacle to innovation and evolution. The dynamics of technological competition and the "first-mover" advantage are neatly depicted. It would not be too far-fetched to say that Hamilton saw in the 1790s the technological struggle as a sequence of discontinuous jumps, each discontinuity representing a radical qualitative improvement, with respect to the previous stage. Such phase transitions would take place when old customs are abandoned and superseded by new ones; when revolutionary productive techniques supplant old ones: Hamilton had sensed the notion of technological *routine*. Each learning curve is governed by one, and is eventually defeated by a newer one, as time and progress move onward.

> Experience teaches, that men are often so much governed by what they are accustomed to see and practice, that the simplest and most obvious improvements, in the most ordinary occupations, are adopted without hesitation, reluctance, and by slow gradations. The spontaneous transition to new pursuits, in a community long habituated to different ones, may be expected to be attended with proportionably greater difficulty (Hamilton, 1964, p. 140).

In Schumpeter's argument, it is the entrepreneur's heroic task to subvert the routines of the past, whereas in the austere – yet vibrant – warlike environment of the nationalists, the Government is the prime mover. "To produce the desirable changes as early as may be expedient, may therefore require the incitement and patronage of government" (Hamilton, 1964, p. 141). Protection of course, and plenty of subsidies for infant industries.

> The superiority antecedently enjoyed by nations, who have preoccupied and perfected a branch of industry, constitutes a…formidable obstacle to the introduction of the same branch into a country in which it did not before exist. To maintain between the recent establishments of one country and the long matured establishments of another country, a competition upon equal terms, both as to quality and price, is in most cases impracticable. The disparity, in one or the other, or in both, must necessarily be so considerable as to forbid a successful rivalship, without the extraordinary aid and protection of the government. But the greatest obstacle of all to the successful prosecution of a new branch of industry in a country, in which it was before unknown, consists, as far as the instances apply, in the bounties, premiums and other aids which are granted, in a variety of cases, by the nations, in which the establishments to be imitated are previously introduced (Hamilton, 1964, p. 141).

If the government were then to grant the monopoly of manufacturing wares to a certain class, free traders would hold that such action would immediately translate in price gouging by the privileged class. Hamilton disagrees and contends that experience has generally shown the opposite: prices decrease. He does not deny that they may be high at the commencement of activities, but, relying on the properties of learning, as the method of production is perfected, costs and prices would tend to fall. Like List, Hamilton keeps an eye on the rural folk, and crowns the now familiar "infant industry" issue with the upbeat and synergetic "harmony of interests":

> This eventual diminution of the prices of manufactured Articles, which is the result of internal manufacturing establishments, has a direct and very important tendency to benefit agriculture. It enables the farmer, to procure, with a smaller quantity of his labour, the manufactured produce of which he stands in need, and consequently increases the value of his income and property (Hamilton, 1964, p. 158).

Matthew and Henry Carey

> If there be any one truth in political economy more sacred and irrefragable than another, it is, that the prosperity of nations bears an exact proportion to the encouragement of their domestic industry – and that their decay and decrepitude commence and proceed *pari passu* with their neglect of it (Matthew Carey).

Matthew Carey, a leading figure of American national economics, was an enthusiastic follower of Alexander Hamilton's crusade for the establishment of manufactures. He participated actively and wrote profusely for the Philadelphia Society, an association of influential personalities established to support Hamilton's plan and diffuse the principles encompassed in the Report. With his son, Henry, Carey gave some of the most incisive contributions to the debate between cosmopolitan and national economists.

The target is, as usual, Adam Smith. On his first *Address of the Philadelphia Society* (to the citizens of the USA), Carey defies the principles of free trade by dissecting the sociological implications of those commercial crises recurring in the USA, caused by England's commercial tyranny.

To begin with, Carey is utterly outraged (as can be assumed by his fiery style) by the nonchalance which Smith certainly affected when he wrote, as stated earlier, that "though a number of people should by restoring free trade, be thrown all at once out of their ordinary employment, and common method of subsistence, it would by no means follow, that they would thereby be deprived either of employment or subsistence". As we know, he held that the excess supply of labour would automatically be absorbed by upsurging sectors of the economy: the so-called *collateral manufactures*. Now, the question which (should) naturally arise(s) is, "are there such collateral manufactures in which men may transfer their industry?"

> It may be conceded, that there is a species of affinity between the weaving of cotton and woollen, and a few other manufactures. But this cannot by any means answer Smith's purpose. Where will he, or any of his disciples, find "collateral manufactures", to employ printers, coach makers, watch-makers…and the great variety of other artists and manufacturers? (Carey, 1968, p. 27).

The list of professions goes on indefinitely, but the point Carey wants to make is clear: as part of a community calibrated by given institutional gears, men are taught different professions; they start as apprentices, learn and finally become masters of their trade. The evolution of the social microcosm determines punctiliously the professional trajectory of the community. The slower the technological pace, the more rigid the guild system; conversely, the more frantic the path of innovations, the more turbulent the labour market. Under the machine process, the goal of all employers is to fish from a pool of undistinguishable, standardized labourers. Today, this is termed *flexibility*. Thus, what capitalist oligarchy looks forward to is a mass of undifferentiated blue-collars, whose clone-like genetic countenance will enable them to live through the aftershocks of a crisis. But as a partial matter, one simply cannot learn another profession overnight to salvage the superabundant "leftovers" of modern manufactures. Thus, if free trade is resumed after a relatively long period of protection designed to foster the growth of native industries, the effect is likely to be disastrous, if the infant has not reached maturity.

> …It is a matter of inexpressible astonishment, that such an idea could have been hazarded, in a sober and serious book, which has been so long regarded as a guide to statesmen and legislators, and as the infallible oracle of political economy. It will not stand the test of a moment's investigation (Carey, 1968, p. 28).

We now conclude the discussion of the debate between free traders and protectionists by returning to the central issue, which was hinted at in the review of Mill's ideas on the subject, of how can an agrarian country be systematically exploited by a manufacturing power, and how is the interaction between the two articulated?

In his 12th Address, Carey sketches the historical backdrop of the economic relationship between the Motherland and the most promising of all her colonies, America:

> The peace, concluded in 1783, continued undisturbed; Europe offered but partial markets to our productions while it closed its commerce to our marine. The annual value of exports of our domestic production was less in amount than the annual value of our consumption of foreign commodities: and we possessed no collateral sources of wealth to compensate the deficiency. The government had assumed a large debt which subjected it to a heavy annual interest…The difficulties of the colonial government, and the evils endured by the colonists, were then fresh in remembrance: and their causes were well understood. The commerce, to which they had been limited, was that which at this time is recommended to our adoption. Confined most exclusively to the tillage of the soil, they exchanged their raw productions for the manufactured articles of the mother country. This kind of barter or "mutual exchange", to which the colonies were *forced* by the colonial system of England, kept them poor, to favor industry at home…Their [the colonies'] progress in wealth and power, was looked upon with a distrustful eye. In order to its retardation, to keep them poor and dependent, they were forbidden to manufacture and compelled to supply their wants from England…The cultivation of the soil to its greatest extent, excited no apprehensions that it would enable the colonies to become independent. England well knew, that in the mutual exchange of raw products for manufactured goods, all the advantage was on her side, the loss on that of the colonies. She therefore, restricted them to the cultivation of the soil, except permitting a few handicrafts of first necessity (Carey, 1968, pp. 173-4).

Matthew Carey gives here the general outline of the problem, but it was left to his son Henry – one of the first US economists and statisticians worthy of these titles – to apprehend and construe rigorously (with a profusion of statistical data) the morphology of the exchange taking place between the Empire and the fertile periphery.

In his analysis, the point of departure represents no exception to the tradition, for it is, naturally, Adam Smith. "The object of the colonial system" was that of "raising up a nation of customers", a project "fit only", says Smith, "for a nation of shopkeepers". As early as the period immediately following the Revolution of 1688, we find the shopkeeping influence exerted for the "discouragement" of the woollens manufacture in Ireland; and while the people of that unfortunate country were thus prevented from converting their own wool into cloth, they were by other laws prevented from making any exchanges with their fellow-subjects in other colonies, unless through the medium of English ports and English "shopkeepers" (Carey, 1967, p. 52). The colonial system figures indeed as a pernicious interference in the common development of socio-economic relations. Men, argues Carey, *naturally* tend to save labour; they commonly pool their effects to build the basic network which spins the cycle of production and distribution. Farmers need craftsmen, and vice versa: "the loom and the anvil are merely subsidiary to the plough and the harrow". As the economy expands and the articulation of interrelationships becomes more intricate, new professions sprout and "through [the] country, there is a want of combination". Indeed, the *natural course* of western economic growth seems to imply the simultaneous advancement of agriculture *and* manufacturing. Thus Carey turns Smith's vision upside down: what is *natural* for a growing community is the free, full bloom of her productive and manufacturing powers, along with agronomic advance; it is not to be sentenced to the perennial cultivation of the soil dependent on the imperial power for manufactures. The way England, or any country on the technological frontier, exploits her colonies was brilliantly explained earlier in several distinct passages of Cantillon's *Essay*, in which it was shown that the intangible, most precious fruits of human discovery embodied in the wares churned out by the highly productive heart of machinery, through exchange, swallowed vast portions of tangible land of the agrarian country. The barter consists of giving, say, one acre of produce for the mere sustenance of the artificer, in exchange for a hundred acres of raw materials. The fraudulent hue of the transaction is snugly hidden by the terms of trade which obviously takes for granted the notion of value added, that is, the reward for skill, dexterity and ingenuity. But the truth is, according to Carey, harsher still: the colonies are not only suffering the "first-mover" advantages of a technologically superior "bully", they are indeed methodically *taxed* by the Crown for their deficient state.

Carey proceeds in his argument by listing several acts whereby the Crown lucidly prevented her colonies from establishing manufactures: these acts were supposed to enforce the prohibition of exporting skill and knowledge abroad, by chaining artisans to their workshop and not allowing them to emigrate; the exportation of tools was also forbidden and the ordinance was progressively extended to all trades:

> We see thus, that the whole legislation of Great Britain, on this subject, has been directed to the one great object of preventing the people of her colonies, and those of independent nations, from obtaining the machinery necessary to enable them to combine their exertions for the purpose of obtaining cloth and iron, and thus compelling them to bring to her their raw materials, that she might convert them into the forms that fitted for consumption, and then return to the producers a portion of them, burdened with great cost for transportation, and heavy charges for the work of conversion.

Carey then immediately adds in a paragraph of greatest importance concerning the interpretative model of development dynamics formulated by classical liberalism, that:

> Had it not been that there was a natural tendency to have the producer of iron and cloth, and hats, to take his place by the side of the producer of food and wool, there could never have arisen any necessity for such laws as those passed in relation to Ireland and the colonies, and had that tendency not existed, the laws prohibiting the export of machinery would never have been required. It did exist, and it does everywhere exist, and it was for the purpose of preventing the gradual development of a natural state of things, and bringing about an unnatural one, whereby Great Britain might be "made the workshop of the world", that those laws were passed. *The object of protection has been, and is, to restore the natural one* (Carey, 1967, p. 53; emphasis added).

One last interesting qualification, dealing with the alleged exorbitant gains England derived from her trade with colonies, should be inserted in conclusion. Carey warns the reader that one should be very specific and carefully choose his words in identifying the recipient of the perquisites from trade. In other words, saying that large profits regularly accrue to England, does by no means imply that the population of Great Britain thrives and prospers by virtue of international trade. Sadly enough, quite the opposite may be true:

> For a long period, the few engaged in manufactures made vast fortunes; while the owners of the land were enabled to obtain enormous rents, because the consumers of food increased more rapidly than the producers of food. Land gradually consolidated itself in fewer hands, and the little occupant of a few acres gave way to the great farmer, who cultivated hundreds of acres by aid of hired-labour. The few became richer, and the many went to the poor-house. The value of labour, in food, was diminished, and the value of capital was also diminished, because both were, as they still are, shut out from employment on land, the only employment in which both can be used to an indefinite extent, with constant increase in the return to labour (Carey, 1967, p. 54).

This is a radically different story from that told by the classical thinkers, whereby the poor-houses swarmed with paupers because of excess population. Carey strongly rejects the notion of decreasing returns on land – indeed, he states it is constant – and attributes the social catastrophes of England to the class and allocational transformation wrought by the merchants' oligarchy.

> With each step in her progress, she [England] becomes less a producer and more a mere exchanger, dependent upon the profits of converting and exchanging the products of other nations. This steadily increasing disproportion between the producers and exchangers, brought about the state of things that led to the repeal of the corn laws [which brought Ireland to her knees], since the date of which there is an evident increase in the tendency to become a mere exchanger of the works of other men's hands (Carey, 1967, p. 55).

Subsequently, Carey presents a table of Great Britain's total exports for three different periods (the time span goes from 1815 to 1848). For each period he subtracts from total exports the total expense, that is the value of the raw materials purchased from the colonies to feed the workers and the productive process in general; the difference of these two aggregates is then divided by the number of inhabitants and the result gives the amount of money per head which each single citizen can expend on foreign necessities (food and clothing mainly). The interesting finding of Carey is that this sort of "allowance" to the labourer (the one who manufactures wares) derived indirectly from the trade with the colonies, has been decreasing steadily. In other words, the wellbeing of the working class has worsened significantly.

> We [find] a constantly diminishing quantity to be applied to the purchase of various descriptions of food that from luxuries have become necessaries of life, and that of the materials of clothing. It follows, of course, that as food is the article of prime necessity, the amount that each expends on clothing is very small indeed; the consequence of which is, that the people of England, engaged in furnishing cheap clothing to all the world, are not only badly fed but exceedingly badly clothed, the cost of clothing, in labour, being so great as to place it beyond their reach, the amount that can be expended for that purpose tending rather to decrease (Carey, 1967, p. 57).

This explanation of pauperism in England as a major consequence of the country's commercial organization is fascinating: Carey contends that England "cloths her people at the cost of the cotton planter". Moreover, "She had a certain quantity of labour that she can give in exchange for cotton, and the price of the whole import is regulated thereby" (Carey, 1967, p. 58). In other words, the labourer is shamelessly kept at subsistence; what is available is his labour-power, and the merchant has total control over that. Therefore, if the crop of the, say, American, planter is large, the price is low; England can then clothe her worker very cheaply and dictate an exchange ratio of cotton for cloth to her advantage. This is the principle of taxation via international exchange. Conversely, if the crop is small, labour costs increase accordingly and the planter is less injured than in the previous case.

> Instead of applying her labour to the cultivation of her own soil, she pursues a course having for its object that of compelling all the farmers and planters of the world to make their exchanges in her markets, where she fixes the price of the world. Her power to apply the proceeds of labour to the purchase of other commodities than those of prime necessity is small, and gradually but steadily diminishing; and wherever the labours of the producer are rewarded with liberal returns, he is nearly ruined, because the price falls below the cost of production. The system is altogether so remarkable that at some future day it will be deemed almost impossible that it should ever have been tolerated. She [England] has a certain quantity of the means of transportation and conversion, and being thus provided she desires that cotton and sheep's wool of the world shall be brought to her, that it may be spun and woven, and that she may take toll for spinning and weaving it (Carey, 1967, p. 58).

Conclusions

At one level, Adam Smith and his successors provided an analysis of free, unhampered, worldwide trade and an exposition of its benefits for all participating countries. At another level, the classical British economists were intelligentsia of the British Crown, actively supported by adversary economic factions contending in the world arena for commercial supremacy. Smith and his followers presented the word of the victors at a very intriguing stage in economic history, namely, the development of international trade within a system of explosive technological advance, in a period when Great Britain, having defeated its only major rival for world supremacy and power – France – became the "workshop of the world" and secured its position of world supremacy partly through its "head start" over other societies, protected by its naval power.

The cosmopolitan image of Smith and his successors was challenged forcefully by nationalist writers, notably in Germany and the USA. List, Hamilton and others writing in the nationalist mode criticized the classical view and analysis of international trade not simply as scientific theory, but in historical context. For the nationalists, it seemed plausible to suppose that, in an era of rapid technological progress and potential industrial development, countries which for the moment were at a lower stage could, with temporary assistance and guidance, catapult to a position of equality or even superiority to that country with the special advantage of a head start. Like Adam Smith, nationalist writers also believed that defence trumps opulence and that independence and rounded development is a function of all national powers, notably military prowess.

Notes

1. This, and subsequent quotations from Cantillon's 1755 work, have been translated from the original French by Guido G. Preparata.

2. Here is a very pertinent remark by Cantillon on this aspect: "If a country customarily obtains gold and silver in exchange for raw goods, such as grain, wines, wool, etc., the State will certainly benefit from the trade, but a decrease in population will be the price to pay; however, if gold and silver are obtained from abroad in exchange for labour performed by its citizens, that is, in exchange for those goods that require a minor exertion of the soil [manufactures], the State will thrive in a substantial and useful way" (Cantillon, 1979, pp. 112-4).

References

Blaug, M. (1985), *Economic Theory in Retrospect*, Cambridge University Press, Cambridge.

Cantillon, R. (1979), *Essay de la Nature du Commerce en General*, Kinokuniya Bookstore, Tokyo (first published 1755).

Carey, H.C. (1967), *The Harmony of Interests*, Augustus M. Kelley, New York, NY (first published 1851).

Carey, M. (1968), *Essay on Political Economy*, Augustus M. Kelley, New York, NY (first published 1822).

Cooke, J.E. (1964), " Introduction", in Hamilton, A., *The Reports of Alexander Hamilton*, Harper & Row, New York, NY (first published 1791).

Hamilton, A. (1964), *The Reports of Alexander Hamilton*, Harper & Row, New York, NY (first published 1791).

List, F. (1983), *The Natural System of Political Economy*, Frank Cass, London (first published 1837).

List, F. (1991), *The National System of Political Economy*, Augustus M. Kelley, New York, NY (first published 1885).

Mill, J.S. (1987), *Principles of Political Economy with some of their Applications to Social Philosophy*, Augustus M. Kelley, New York, NY (first published 1848).

Ricardo, D. (1992), *Principles of Political Economy and Taxation*, Everyman's Library, New York, NY (first published 1813).

Smith, A. (1976), *The Wealth of Nations*, The University of Chicago Press, Chicago, IL (first published 1776).