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Lars Herlitz  
Ideas of Capital and  
Development in Pre-Classical  
Economic Thought:  
Two Essays

Institute of Economic History  
University of Göteborg

**Report 7**

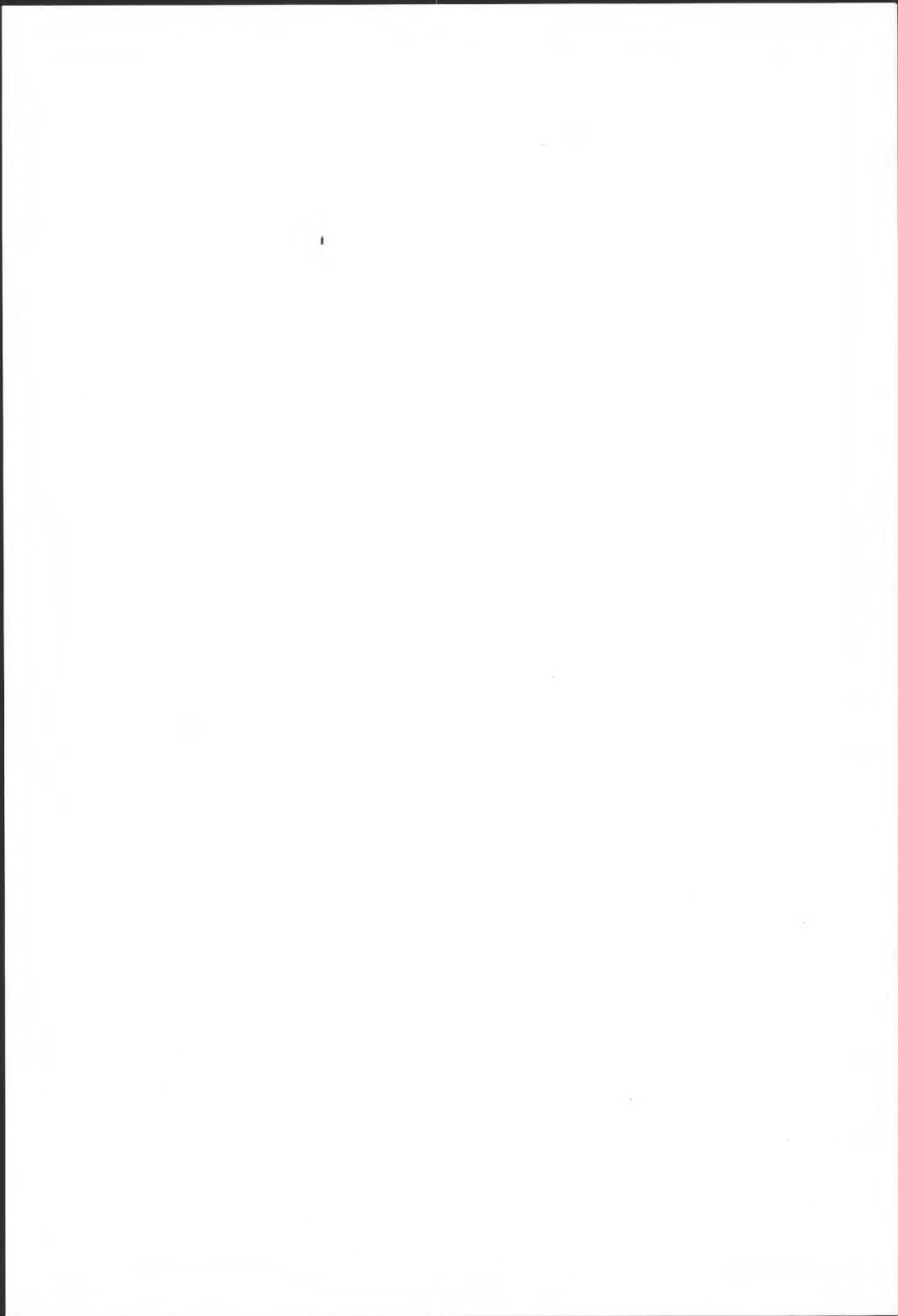
Translated and published with grants from the Swedish  
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Sciences

**Ideas of Capital and Development in  
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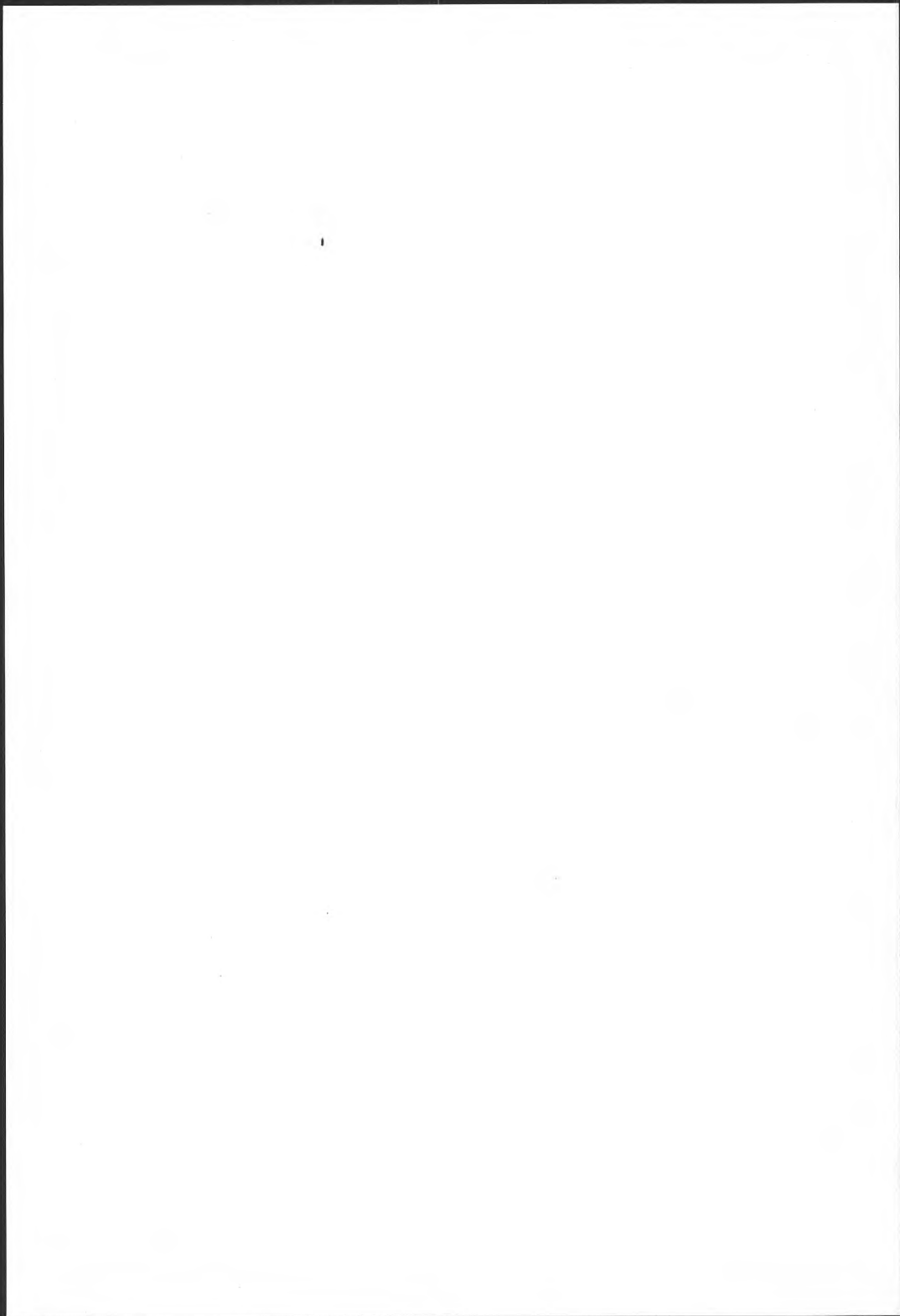
Göteborg 1989





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## Preface

The two essays published here differ in aims, in style and in covering, as well as by the context of their coming into existence.<sup>1</sup> Nevertheless they share a common theme: they deal above all with pre-classical conceptions of capital and its role in economic development.

The first of these is the concept of an aggregate. Breeding the Kingdom's stock was the worthy task of the true merchant, according to Thomas Mun. The merchant served the kingdom by valorising its capital by means of foreign trade. The essay on "Merchants and Jesuits" tries to show how the conception of a favorable balance of trade could be carefully and skilfully subordinated to this task.

Within the Kingdom's stock Mun distinguished between natural and artificial riches. He thereby established a long and powerful tradition. Natural riches were the fruits of the earth, the raw produce or primary products. When these were changed by "arts" into new forms, they were transformed into artificial riches. Artificial wealth was created by "art" rather than by nature. Of the natural riches, according to Mun, only that part could enter the Kingdom's stock which was saved out of "our own use and necessities". Concerning artificial wealth he did not mention the same restriction. The reason, I suggest, is that he referred to the potential elements of the stock, and that he considered the very creation of artificial wealth as an act of saving, by means of which labour and natural wealth were stored into durable articles of commerce. He was followed in these ideas by Charles Davenant, who, identifying the natural products with the fruits of the earth and the artificial with the manufactures, included the following elements in the nation's stock: coined silver and gold, bullion, wrought plate and rings, jewels, furniture and apparel, stocks for trade and consumption, and the live stock in cattle.<sup>2</sup>

Here, then, the aggregate stock or capital was conceived of as potentially the sum of exchange value embodied in the total amount of commodities, including of course those commodities that served as money. This was considered as the national saving which should be

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<sup>1</sup>Both essays have been published before in Swedish, in *Festskrift til Kristof Glamann* (Odense 1983), pp. 71-85, and in *Samhällsvetenskapens klassiker* (Lund 1988), pp. 43-67. They have been translated into English, in slightly different shapes, by Ianthe Holmberg.

<sup>2</sup>*The Political and Commercial Works of Charles Davenant I* (ed. Whitworth, London 1771, republ. 1967) p. 375.

invested as far as possible into the foreign trade in order to grow and to make the nation rich and powerful. The merchant took charge of it. He was no capitalist, only the investors' faithful servant, who made proper use of the capital entrusted to him, and besides, when suitable, called for industriousness and frugality.

For the merchants' mercantilism, commodities were above all tradable. Labour embodied in commodities could be stored, transferred and traded over great distances. So could labour power. But living labour could not. When preference was given to foreign trade, production of commodities appeared quite naturally as the general form of saving or capital formation, and commodities, native or foreign, as that of real capital. Buying commodities cheap and selling them dear constituted that circulation by which capital became fruitful and multiplied. It has been suggested that the mercantilists' over-enthusiasm about the merits of trade reflected the very impressive once-for-all gains brought about by a once-for-all change from no trade to a situation of maintained trade within a plurality of economic systems (nations or regions).<sup>3</sup> For English mercantilism of the 17th century this is a tempting interpretation. Indeed, the exclusive predilection for foreign trade withered in the first half of the 18th century. So did the concept of the nation's capital as constituted by the wealth of commodities.

Political economists of the 18th century remained however pleaders for commodity production and artificial wealth. But new arguments were advanced or given more weight. "Art" assisted and abridged labour and increased its productivity. Art meant mills and efficient means of production, invention or skilful contrivance. Art increased the variety of goods, decreased their price and economized on Nature's raw materials. Artificial wealth was a substitute for natural wealth which involved skill to bring into being.<sup>4</sup> The idea of stored-up labour was of course never forgotten until it became a foundation of Adam Smith's doctrine of productive labour.

The concept of capital as accumulated private property in the shape of produced means of production appeared with Quesnay and the physiocrats. This happened in France in the middle of the 18th century, in the face of burning questions about agriculture's capacity to meet the claims from population and industry.

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<sup>3</sup>L. L. Pasinetti, *Structural Change and Economic Growth: a Theoretical Essay on the Dynamics of the Wealth of Nations* (Cambridge 1981), pp. 2-4 and chap XI, pp. 260-261.

<sup>4</sup>Cf the masterly chapter on "art" and "ingenious labour" in E. A. J. Johnson, *Predecessors of Adam Smith: the Growth of British Economic Thought* (1937, repr. New York 1960), pp. 259 ff.

The idea was straightforward. To produce the proper rent to the landowner, the farmer had to work the land not only with human labour but furthermore with efficient material equipment, above all swift and strong horses before the plough. As credit was not available for such long-lived and risky investments, the farmer had to be rich by himself. Rich meant here capable to make "advances" and to wait until production paid back. The physiocrats recognized that the farmer's productive assets differed in their duration of life. Accordingly they distinguished between the farmer's "annual advances", which were paid back in full by one year's harvest, and his "primitive" or original "advances", which were amortized in the course of several years. Their basic observation was then that strong primitive advances could lower the annual advances to such an extent that also total yearly cost were squeezed and the net produce raised. Within the limits of the attainment of prosperity, better horses and ploughs could be substituted for human labour in order to raise the over-all productivity in agriculture.

The conception of capital as advances almost begged for being generalized. The request was granted by Turgot. According to him, capital was in general demand as advances indispensable for every branch of production, and supplied by private voluntary saving. This became the predominant capital theory of non-marxian political economy for at least 120 years.<sup>5</sup> But the true physiocrats, Quesnay and his sect, refused to follow him. Not only did they consciously fail to account for any use of primitive advances outside agriculture. In addition they stressed that productive capital was created by expenditure and not by saving. Private saving, they replied to Turgot, had even dangerous effects in a society with division of labour by lowering aggregate demand, spoiling market prices and ruining producers.<sup>6</sup>

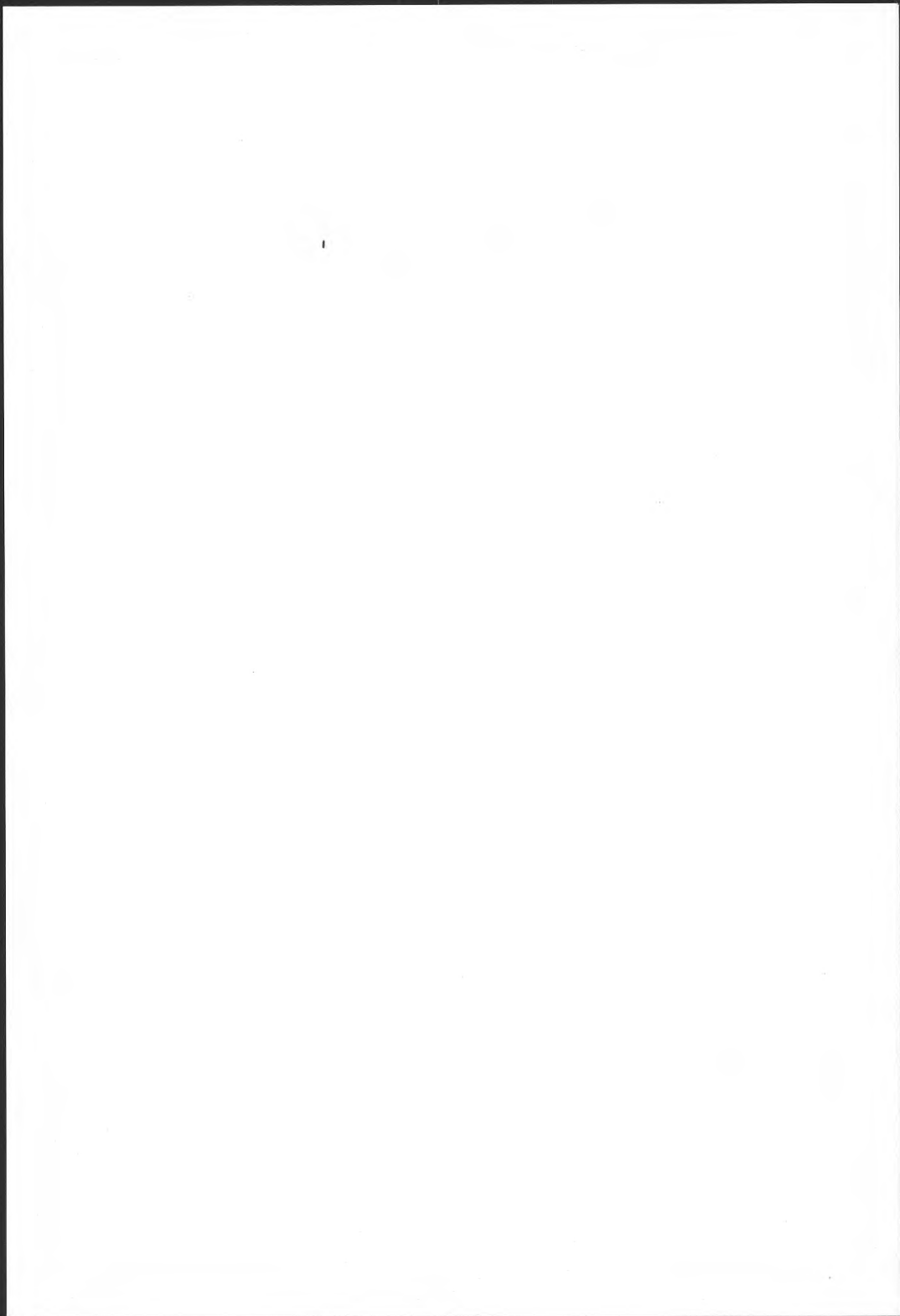
This was the capital controversy of the 18th century. We may note, that the less general concept, that of Quesnay, was capable of explaining the structure and roll of real capital in production better than the followers among the classics, who adopted without hesitation the more generalized concept from Turgot.

Lars Herlitz  
December 1988

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<sup>5</sup>J. A. Schumpeter, *History of Economic Analysis* (London 1967), p. 323-327.

<sup>6</sup>Dupont's editorial remarks to Turgot's "Réflexions sur la formation et la distribution des richesses" when published in *Ephémérides du citoyen* (1769-70), in: Turgot, *Ceuvres II* (ed. G. Schelle, Paris 1914), pp. 583-585.





## Merchants and Jesuits: Thomas Mun's Balance of Trade.

### 1

The balance of international payments as we conceive it today is based on the tautological equivalence of total debits and credits, where all sales and purchases to and from abroad of goods and services, claims, gold and currency are registered on the credit and debit side, respectively. To speak of a "surplus" or "deficit" presupposes the distinguishing - in debits and credits - of items which are considered regular. Any difference between the sums of the regular items in debits and credits must then be balanced by a deficit (in credits) or a surplus (in debits). The distinction is in principle operational. When net movements of gold, currency and short-term capital assets are considered "balancing", they are used as warning signals indicating disturbances in either direction, which might require political intervention. To some extent it is also conventional, depending on the prevailing system of international payments.

The historical antecedent to the balance of payments is the mercantilists' balance of trade. Here basic assumptions as well as formal logic appear to be the same. The mercantilists distinguished exports (X) and imports (M) as regular items. Debits were required to equal credits and thus a balance emerged: the difference between exports and imports was balanced by the net flow of precious metals ( $B = X - M$ ). Often but far from always the mercantilists ignored the "invisible" items on current account as well as the items on capital account. This should however not prevent us from considering their balance of trade as in principle a balance of payments. They recognized the existence of the items omitted, and their conception of how debits and credits were balanced therefore implies the position that other items than exports and imports, when omitted, were of negligible importance.<sup>1</sup>

We are then left with a crucial difference. The mercantilist doctrine of the balance of trade assigns to the balancing surplus or deficit quite a different role, namely that of indicating whether foreign trade has been favourable or not, where the criterion<sup>1</sup> of its having been fa-

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<sup>1</sup>Br. Suviranta, *The Theory of the Balance of Trade in England* (Helsingfors 1923).

vourable is  $B > 0$ , or  $X > M$ . Thus the balance of payments appears as a profit-and-loss account of the nation.

It has generally been considered that this position poses problems in at least two respects. On the one hand one may question the purpose: why is the export surplus favourable? From national accounting we have the relation

$$B = Y - E ;$$

Y being income and E total expenditure on domestic consumption and investment. An income over and above what domestic expenditure absorbs is the normal complement to capital export, but as has already been pointed out, this interpretation of the mercantilists' favourable balance of trade is ruled out on account of their assumption that the export surplus is balanced by the inflow of precious metals. As for the use of the surplus income, what we are left with is domestic hoarding. The mercantilists certainly recognized and also utilized the need for reserves. But we cannot rationalize their balance of trade doctrine as being an awareness of an ever growing propensity to hoard.

The classical objection, however, concerns the means to achieve this in itself futile end, means which have appeared similarly futile. When concentrating on the relation  $B = X - M$ , the mercantilists overlooked the interdependence between the factors concerned and the equilibrating mechanism. An export surplus should counteract itself by affecting relative prices of exports and imports so as to restrict exports while promoting imports. This equilibrating mechanism is most immediately apparent in a system of wholly flexible exchange rates, where the pressure of the export surplus on the exchange rate entails a pressure on relative prices. Where flows of precious metals are supposed to be equilibrating, the causal relations are less evident and more elusive. Thus the classical and pre-classical "price-specie-flow mechanism" was based upon the effects of specie flows on prices prescribed by the quantity theory of money. Anyhow the mercantilist theory of the balance of trade emerges as an illusory half-truth attempting to hold on to and raise to the dignity of a permanent objective what in fact is no more than one link in a self-equilibrating chain of causes and effects. It might be compared to a man, who, on the strength of the perfectly correct observation that the thermostat switches on when the temperature falls, opens his windows wide and bravely endures the inrushing cold winter air in the hope of soon being nice and warm.

The mercantilists took the flows of precious metals for granted. Although the price-specie flow-mechanism is the more complex and less obvious variant of the equilibrating devices, it has historical precedence. When formulated in the middle of the eighteenth century, it explicitly opposed the doctrine of the balance of trade, which thus was challenged on its own premises. And it swiftly made its mark. The most famous formulation was that of David Hume (1752):

Suppose four-fifths of all the money in Great Britain to be annihilated in one night /.../ Must not the price of all labour and commodities sink in proportion /.../? What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which to us would afford sufficient profit? In how little time, therefore, must this bring back the money which we had lost, and raise us to the level of all the neighbouring nations? Where, after we have arrived, we immediately lose the advantage of the cheapness of labour and commodities; and the farther flowing in of money is stopped by our fulness and repletion.

Again, suppose, that all the money of Great Britain were multiplied fivefold in a night, must not the contrary effect follow? Must not all labour and commodities rise to such an exorbitant height, that no neighbouring nations could afford to buy from us; while their commodities, on the other hand, became comparatively so cheap, that, in spite of all the laws which could be formed, they would be run in upon us, and our money flow out; till we fall to a level with foreigners, and lose that great superiority of riches, which had laid us under such disadvantages?<sup>2</sup>

Hume's argument embraces that very connection between export surpluses and specie flows which the mercantilist doctrine of the balance of trade is concerned with. He adds however two links which together make up a perfect feed-back. On the one hand, there is a connection between money and prices, whereby specie flows influence relative price levels. On the other hand, there is a connection between relative price levels and exports and imports.

For all its pedagogical merits the argument is by no means uncontroversial. Modern sympathetic critics have even called it a "beautiful mistake". With integrated world commodity markets, as explicitly presumed by Hume, his crude assumption of a straightforward proportionality between changes of money supply and of prices in one

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<sup>2</sup>"Of the Balance of Trade". D. Hume, *Writing on Economics* (ed. E. Rotwein 1955), pp. 62-63.

country could be criticised for inconsistency already by contemporaries.<sup>3</sup> Moreover the influence of a change in relative price levels on exports and imports will depend on price elasticities of demand for the commodities in question. It has indeed been maintained that the mercantilists' real concern was favourable *terms* rather than *balance* of trade and that they often argued from the presumption of a highly inelastic foreign demand for the native products - so that "exports could be forced on other countries at an enhanced price without diminution of quantity".<sup>4</sup> Thus mercantilists in general might well be excused for *not* having anticipated the point made by David Hume in 1752. The case to be considered here is however more difficult. Here we will find the "beautiful mistake" almost completely anticipated with apparently no consequences for the doctrine of a favourable balance of trade.

The mercantilists' positions on issues of foreign trade were closely scrutinized by Eli F. Heckscher. Being himself a prominent advocate of the liberal foreign trade theory, he consistently viewed the mercantilist literature with the perspective of a presumed self-equilibrating mechanism. He emphasized the narrow perspective of the balance of trade theorists, their partial conception of reality and their propensity to fix upon the immediate consequences of surpluses or deficits, without analysing their pre-conditions or seizing the following links in the chain of causes and effects. He further maintained that their deceptive half-truths had the most parodical effects on political praxis.

But he also called attention to the fact that at least one leading mercantilist "in a moment of inspiration" not only pointed to the connection between money supply and price level but also considered that a relatively high domestic price level had negative effects on exports. This exception was Thomas Mun in his *England's treasure by foreign trade* (1620s, printed in 1664) possibly the most significant and influential work in English balance of trade literature. Thomas Mun, says Heckscher, demonstrated greater powers of observation than most mercantilists. From the purely logical point of view, he was near to readjusting mercantilism as a monetary system, but

<sup>3</sup>L. Gomes, *Foreign Trade and the National Economy: Mercantilist and Classical Perspectives* (London 1987), pp. 110 ff.

<sup>4</sup>M. Dobb, *Studies in the Development of Capitalism* (London 1946), pp. 202-210; cf. L. Magnusson, "Eli Heckscher, Mercantilism and the Favourable Balance of Trade". *The Scandinavian Economic History Review* 26 (1978), pp. 116, 124-125.

"from the psychological point of view, few people obviously could be farther from this /.../"; instead of pursuing this train of thought to its conclusion, he merely used his observations to support the usual demands of East India traders to be allowed to export precious metals.<sup>5</sup> Certainly it is with Thomas Mun in his mind that Heckscher attempts to sum up the mercantilist position on the relationship between relative money supply, relative price levels, balance of trade and exchange rates:

/.../The connection between any one pair of these factors was clear to the mercantilists. With perfect apperception, they recognized the link between the quantity of money and prices; in certain clear moments they also saw the connection between prices and foreign trade; and they always understood the bond between foreign trade and (the foreign exchange and) the movements of silver. It was only the whole chain of interconnectedness which was hidden to them.

Such a state of affairs may appear peculiar. But we should not forget that foreign trade is a complicated matter. The situation, in fact, is very significant of what in general clarifies or clouds economic phenomena. For what very often, if not normally, decides the issue is not the knowledge or ignorance of the individual factors, but whether elementary ideas, each individually clear and recognized as correct, are integrated into a consistent system.<sup>6</sup>

This provocative conclusion can always be challenged by what we might call the *argument of praxis*. Theories work with models of reality whose connections are made general by means of strict *ceteris paribus* assumptions. The mercantilists were men of practice, adapting themselves to ever-changing situations and overwhelmed by the experience that other things are seldom equal. If they preferred some immediate, striking or obvious connections to the more consistent or comprehensive model of an all-embracing total context, the explanation is not necessarily an inability to grasp the logic of things.

But there is also something to be said in favour of Heckscher's methodological position, and especially in favour of his search for a logical structure in mercantilist economic thought. Unless we assume at least some consistent organizing principles - we may understand them as theory, ideology or discourse - we are left with a series of *ad hoc* explanations treating the individual cases in mercantilist literature as merely reactions to quite specific historical situations, rather

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<sup>5</sup>E. Heckscher, *Mercantilism II* (London 1935), pp. 242 f.

<sup>6</sup>Heckscher, *op. cit.*, p. 250.

hypothetical, moreover, as those situations to which our explanations refer can seldom be reconstructed independently. Heckscher stubbornly warned not to infer too much of real historical peculiarity from what the mercantilists wrote. Methodologically these warnings were sound. We should, at least begin by looking for consistency in aims or views.

## 2

What Thomas Mun has to say about the influence of prices on export sales and that of money supply on prices occupies quite a central position in his work. After presenting, in ch II, "the general rule" as to how foreign trade enriches the country, he embarks in ch III on the specific ways and means by which exports may be increased and the consumption of foreign commodities reduced. Where exports are concerned, he immediately brings forward the price elasticity of demand. We must, he says, take into account not merely "our own superfluities", but also "our neighbours' necessities". Commodities which they cannot do without, nor procure elsewhere, we can strive to sell to them dear "so far forth as the high price cause not a less vent in quantity". But this does not apply to those commodities which the foreigner can do without, which he is able to procure from other countries or find a substitute for: "we must in this case strive to sell as cheap as possible we can, rather than to lose the utterance of such wares". Mun unhesitatingly places England's foremost export product, cloth, in this latter category. He cites contemporary experience, estimates the size of the elasticity coefficient and tries to explain why it is so large.

*/.../* And on the other side a few years past, when by the excessive price of Wools our Cloth was exceeding dear, we lost at the least half our clothing for forraign parts, which since is no otherwise (well neer) recovered again than by the great fall of price for Wools and Cloth. We find that twenty five in the hundred less in the price of these and some other Wares, to the loss of private mens revenues, may raise above fifty upon hundred in the quantity vented to the benefit of the public. For when Cloth is dear, other Nations doe presently practise clothing, and we know they want neither art nor materials, to this performance. But when by cheapness we drive



them from this employment, and so in time obtain our dear price, then do they also use their former remedy. /.../ <sup>7</sup>

A manual in microtheory could scarcely be more instructive.

The connection between money supply and price level is dealt with in the following chapter. It is mentioned briefly and in passing, since Mun takes it for granted: everybody consent to it. But when mentioning it, he links it on the one hand directly to the influence of prices on export sales, with reference made to the discussion in the previous chapter on the price elasticity of the demand for cloth. On the other hand, these two connections are both fitted into a continuous, closed chain of causes and effects, which seems indeed familiar:

/.../ If wee were once poor, and now having gained some store of mony by trade with resolution to keep it still in the Realm; shall this cause other Nations to spend more of our commodities than formerly they have done, whereby we might say that our trade is Quickened and Enlarged? no verily, it will produce no such good effect: but rather according to the alteration of times by their true causes wee may expect the contrary; for all men do consent that plenty of mony in a Kingdom doth make the native commodities dearer, which as it is to the profit of some private men in their revenues, so it is directly against the benefit of the Publique in the quantity of the trade; for as plenty of mony makes wares dearer, so dear wares decline their use and consumption, as hath been already plainly shewed in the last Chapter upon that particular of our cloth; And although this is a very hard lesson for some great landed men to learn, yet I am sure it is a true lesson for all the land to observe, lest when wee have gained some store of mony by trade, wee lose it again by not trading with our mony. /.../ <sup>8</sup>

Thomas Mun has of course a practical political objective in mind. He is opposing an unconditional ban on the export of precious metals. He is asserting the merchants' claim to be allowed to export coined precious metals under licence. His analysis must nevertheless be evaluated as such, independent of its practical objective. It utilizes the very same pairs of causally related concepts as we later find in the price-specie-flow mechanism in for example Hume. And these connections are not observed in isolation. On the contrary they are brought together as links in a continuous and closed chain of causes and effects leading back to the point of departure. The conclusion is both inferred

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<sup>7</sup>Thomas Mun, *England's Treasure by Forraign Trade* (Oxford 1928, repr. 1949), p. 8.

<sup>8</sup>Mun, *op. cit.*, p. 17.



and explicit: it is no use attempting to isolate and raise to the level of an objective any single link in the chain, such as, explicitly, the money gained by trade.

The question then arise: how can the same man be the exponent of a doctrine on the balance of trade in which a "favourable" balance, or export surplus, is the measure of the nation's profit from foreign trade? The answer is that this indeed he cannot be, and neither is in fact, nor does he attempt to be.

### 3.

For Thomas Mun, the merchant is "the Steward of the Kingdom's Stock". Once a year at least a balance should be drawn up over the administration. What should be accounted for and by what methods? These questions are dealt with in ch XX.

The balance is based on exports and imports as recorded in the customs books. Thomas Mun tries to include the net result for the English shipping trade by adjusting the values of commodities in English ports: he suggests that the value of goods brought in by English vessels be reduced by 25%, a corresponding adjustment upwards being made on the export side. Overseas earnings for the English fishing trade, which do not pass through the customs, should be estimated and added to exports. Losses at sea for shipping - here it is unclear whether Mun limits himself to freights or includes the vessels themselves - are to be subtracted from exports or added to imports, depending on whether the ships were outward or homeward bound. The sovereign's transfer of funds for waging war or for the maintenance of armies abroad is with certain emphasis assigned to the imports in debit. So is money annually collected by priests and jesuits among English catholics and secretly conveyed abroad to their colleges and monasteries overseas. These transactions might be counterbalanced in credit by what is paid by foreign princes to spies and favourites in England, even though, as Mun wisely remarks, it be pure treason to accept such money. In addition certain "trivial" items are mentioned: travelling expenses, gifts abroad, smuggling, exchange profits, interests on loans. All things considered, Thomas Mun is very conscientious in accounting for the invisible items in the balance on current account.

His disposition is moreover consistent as a balance of payments - with one single exception: an unexpected addition to the credits:

/.../ Also we must add to our Exportations all the moneys which are carried out in Trade by license from his Majesty. /.../9

Now if this item belongs to credits, it should be so only as part of the *balancing* item, as a contribution to a net outflow of specie resulting from an import surplus. Thomas Mun however treats it as a regular credit item. Thus the merchants' transfer of money abroad under licence is treated as an export item and also mentioned in connection with other exports, the export of customs cleared goods and of fish.

This is not an instance of the mercantilist confusion of treasure with real wealth. Thomas Mun is perfectly aware of the fact that merchants transfer money abroad in payment for imports - he has in fact, as we soon shall see, even instructed his readers on this point.

But let us compare the merchants with the jesuits, who also transfer money abroad, albeit secretly and without a licence. Thomas Mun does not hesitate as to the real meaning of this transaction: the English catholics are importers and consumers, and what they import and consume is "a clear loss to the country". So these imports are entered alongside the merchants' imports of commodities, among the regular items in debit. Yet the money the jesuits have transferred abroad does not figure among the regular items in credit. It goes to the balancing net flow of specie. Money, however is money, imports are imports and jesuits are no worse than spies and traitors. Nothing besides the nature of the imports can therefore justify this discriminatory treatment.

Clearly the ordinary logic of a balance of payments breaks down at this point. Thomas Mun moves the boundary and redefines the distinction between what is regular and what is the balancing surplus or deficit. But let us recall that the location of these boundaries is operational, depending on what one wishes the balance to show. We might then try to formulate the manipulation in a constructive spirit: Thomas Mun redefines because he wishes his balance to show what an ordinary balance of payments cannot show, namely the nation's profit or loss from foreign trade.

For the time being we will look at the consequences of his redefinition. In the ordinary balance of payments we have

$$B = X - M$$

and it shows a surplus if

$$X > M.$$

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<sup>9</sup>Mun, *op. cit.*, pp. 83-86.

Let us call the balance in Thomas Mun's "balance of trade"  $B^*$  and the licenced export of money by merchants A! We then arrive at

$$B^* = (X + A) - M = X - (M - A).$$

The condition for a surplus to arise is here that

$$(X + A) > M \text{ or } X > (M - A).$$

Thus Thomas Mun's balance can show a surplus or profit even if there is a surplus in imports. The condition then is that this import surplus is less than the value of the money the merchants have transferred abroad under licence. Put differently: exports must at least pay for that part of the imports which is not financed by money exported by merchants under licence.

## 4

This does not mean that the fundamental proposition in the mercantilist doctrine of the balance of trade - that the export surplus determines the net flow of specie - is missing in Mun's analysis, nor that he rejects it. On the contrary: it is very much in evidence, and he makes good use of it. He refers to nothing else than this proposition when "the balance" is called "the rule of our Treasure", for instance in the following formulation:

/.../ For so much Treasure only will be brought in or carried out of a Commonwealth, as the Forraign Trade doth over or under ballance in value./.../10

"Balance" refers to export surplus (positive or negative) also when Mun writes about exchange rates and their determining factors. In this context he often explicitly mentions the balance or difference in value between "exportations" and "importations" or between our exported commodities" and "imported foreign commodities".<sup>11</sup> Here he operates within a tradition and with well-established conceptions. The ideas of the traditional balance of trade doctrine are useful to him, even indispensable. Foreign trade alone can supply the nation with money or precious metals, and the balance of trade, as traditionally conceived of, shows how this is achieved and on what terms. But he has also drawn attention to the limitations of this approach: "wee lose it again by not trading with our money".

<sup>10</sup>Mun, *op. cit.*, p. 87.

<sup>11</sup>Mun, *op. cit.*, pp. 35, 40, 42, 43, 87.

For normative purposes he needs another conception, a different balance, and this creates ambiguities in language and concepts. It aims at rendering a truer measure of the nation's benefits from foreign trade and determines the instructions he gives for the drawing up of the balance. The distinctive new feature is that the export surplus is no longer the criterion for the nation's profit from foreign trade. Instead the redefined balance sanctions an import surplus by relieving the debit side of some of its imports.

Arguments for this change are given in ch IV. In ch III we get a preliminary indication that export of money *in trade* might be on a level with export of commodities with regard to the long run effects:

9. It would be very beneficial to export money as well as wares, being done in trade only, it would increase our Treasure; but of this I write more largely in the next Chapter to prove it plainly.

The chain of arguments in ch IV can be read as a commentary on the drawing up of the balance in ch XX. Mun undertakes to demonstrate "how our monyes may be added to our commodities, and being jointly exported may so much the more encrease our Treasure". He begins by dispelling a misconception which might otherwise present itself. Money which is transferred abroad is not part of exports. It is not taken out of the country with the purpose of immediately bringing in a corresponding amount of money

but rather first to enlarge our trade by enabling us to bring in more forraign wares, which being sent out again will in due time much encrease our Treasure.

For although in this manner wee do yearly multiply our importations to the maintenance of more Shipping and Mariners, improvement of His Majesties Customs and other benefits; yet our consumption of those forraign wares is no more than it was before; so that all the said encrease of commodities brought in by the means of our ready mony sent out as is afore written, doth in the end become an exportation unto us of a far greater value than our said moneys were, /.../.

In answer to a fictitious objection, Mun repeats what is the basic condition of his argument: the outflow of money, through trade, with the resulting increase of imports, leaves the consumption of imported goods unchanged.<sup>12</sup> He does not tell us why and how. Yet the distinc-

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<sup>12</sup>Mun, *op. cit.*, pp. 11, 15, 16.

tion between *imports* and the *consumption of imported goods* is a crucial element in his vision.

The argument is that if some of the nation's imports can also be rescued from domestic consumption, they should not be charged to the debit side of the balance. Along with exports they represent instead national savings, which can be converted into capital formation in foreign trade. Thomas Mun's preferred illustration of this capital formation is the growth of re-exportation. Providing examples of how lucrative it was, he staunchly defends the East Indian trade, thus setting a pattern for many apologies that followed. But capital formation in foreign trade consists of more than only the growth of commodity capital, e g more ships and seamen, more transports over greater distances, in short all that contributes "to enlarge our trade". To these ends his claims are excessive: the more goods, the more shipping, the greater the distances and the higher the costs of transports, the more profitable foreign trade for the nation. Herein also lies the difference between merchants and jesuits and between the two types of imports ensuing from the respective transfer of money abroad, the merchants' money resulting in capital formation and that of the jesuits in pure consumption.

Against this background we now turn to the more general propositions about growth and wealth in Thomas Mun's work. The merchant administers the nation's "stock". This consists on the one hand of a natural component, on the other of an artificial one. The natural component is made up of what can be saved out of "our own use and necessities" for exportation overseas. The artificial component consists in "our manufactures and industrious trading with forraign commodities".<sup>13</sup> The nation's stock is thus the capital invested in foreign trade. Thomas Mun points out that a part of it consists of imported goods.

As for the growth of the nation's stock, Thomas Mun maintains that the same rules apply as for a private fortune: annual expenditure over and above the annual income means dissaving and loss of capital; annual expenditure below the annual income means saving and growth of capital.<sup>14</sup> This analogy has often been branded as misleading in the extreme, on the assumption that exports are identified with income, imports with expenditure and inflowing specie from export surplus with savings and accumulation of capital. However,

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<sup>13</sup>Mun, *op. cit.*, p. 7.

<sup>14</sup>Mun, *op. cit.*, pp. 5-6.

this is not what Thomas Mun intends. The distinction between imports and the consumption of imported goods is constantly in his mind, and he considers it carefully when formulating "the general rule" as to how foreign trade will increase the nation's stock, which is

/.../ to sell more to strangers yearly than wee consume of theirs in value. /.../<sup>15</sup>

Exports should exceed, not imports, but rather the consumption of imported goods. If they do they pay also for some of the imports necessary for domestic accumulation of capital. The rule is relatively generous. Through the opening which it affords as compared to the traditional requirement of an export surplus, we get in due time a steady flow of mercantilist arguments in favour of the importation of raw materials and other means of production for further processing and refining. Thomas Mun is more restrictive in so far as he seems to reserve all formation of capital for foreign trade. In principle, however, he sanctions as formation of capital all imports financed by money exported on licence by merchants (A), and the criterion of a surplus in his balance:  $X > (M - A)$  corresponds very well to his general rule.

## 5

Thomas Mun did not advocate a balance of trade doctrine in which an export surplus is the measure of a favourable foreign trade. He did not use a balance of payments as the profit-and-loss account of the foreign trade. He did not confuse the in-flow of precious metals with savings and accumulation of capital. His observations of the causal relations between money supply and prices and between prices and sales are not mere glimpses of truth in moments of inspiration; they are linked together to form a considered and comprehensive whole. The price-specie-flow mechanism did not prove too difficult for him; it was well integrated in his argument.

His conception of the balance of trade is ambiguous. This is so because he realized that the balance of payment failed in distinguishing when foreign trade was favourable to the nation. Therefore he tries to transform it into a different kind of balance, better suited to serve his normative purpose. He is no theoretical revolu-

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<sup>15</sup>Mun, *op. cit.*, p. 5.



tionary. He retains the links with established ideas. Cautiously he pours some new wine into old bottles, and neither the wine nor the bottles respond too well to this treatment. His analytical shortcomings are as evident as are his ideological merits.

Yet the result is remarkable. The old concern for the supply of precious metals has not been swept away, but it is entirely subordinate to the main objective, the growth of foreign trade. Foreign trade is profitable to the nation as long as it grows and expands. Supplying it with more capital becomes a national concern. Capital invested in foreign trade becomes the nation's stock, and the growth of this stock is the profit to the nation. And so imports are sanctioned in as far as they contribute to savings and capital formation in foreign trade. Imports as such do not restrict the opportunities to develop the nation's stock, whereas consumption does.

It was in this form that the doctrine of the balance of trade could become the mainstay of mercantilist thought for at least another century, more truly reflecting the growth of commercial ambitions and confidence. No doubt the ambiguities in basic conceptions that were introduced by Mun, remained with his followers. But rather than being obstacles they seem to have opened up new prospects and probably proved fruitful also in the development of theory.



## The Physiocrats

### 1

Mercantilism, physiocracy and classicism constitute a well-established sequence of systems in the history of economic thought. Their relations to each other were patterned first and foremost by Adam Smith. It is true that the idea of a mercantile system, *système mercantile*, first occurs in the works of the physiocrats about 1760. They used it to describe a system inspired by the interests of cosmopolitan merchants and introduced in France in the time of Colbert with disastrous effects for French agriculture, which now needed rehabilitating. A few decades later, however, both the mercantile and the agricultural systems were presented side by side as the systems of political economy in Adam Smith's *Wealth of nations*. Adam Smith wrote at some length about the invidious and conspirative, though successful, mercantile system, but only briefly and with overwhelming indulgence about the righteous and honorable, though impotent, agricultural system. His own ideas were then, despite some ambivalence, presented as a well-balanced synthesis.<sup>1</sup>

Mercantilism and physiocracy thereby came to represent two alternative positions as to how the transition from a traditional, pre-industrial to a modern bourgeois society could and/or should be effected. The mercantile system involved a consistent effort to give priority to the non-agrarian sectors, to the development of trade and industry at the expense of agriculture and consumption. Adam Smith followed the physiocrats in criticizing this course as being unnatural and voluntaristic in character. He nevertheless considered it to have been effective in defending the interests and promoting the aims of merchants and manufacturers. Those who advocated the agricultural system were closer to a natural order of things, where increase in agricultural production was afforded due primacy in development. Their position was, according to Adam Smith, both commendable and liberal, but he doubted strongly its effectiveness.

The relative importance of agriculture and industrial production for economic growth is a recurring theme in later theoretical disputes

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<sup>1</sup>A. Smith, *Wealth of Nations* (ed. E. Cannan. New York 1937), pp. 426 ff.; L. Herlitz, "The Concept of Mercantilism". *The Scandinavian Economic History Review* 12 (1964), pp. 101-104.

on problems of economic development. The issue gave rise to heated debate in the Soviet Union in the 1920s. It turned up again, in a wider context and with renewed force, in post-war discussions on development. Today we also recognize it as a controversial issue in economic history: in which sense, and to what extent, can it be claimed that the historical process of industrialization presupposed, or was preceded by, an agricultural revolution?

Does the same issue define also eighteenth century mercantilism and physiocracy, and the difference between them? The answer is yes, in as far as we meet it in eighteenth century economic literature as a precondition, acting as an important stimulant in the development of ideas. In Sweden we got the so-called "struggle over the order of precedence among the trades". It was part of a European phenomenon. In the middle years of the century there was in several countries a veritable agromania, characterized by a general and often eloquent recognition of the fundamental importance of the primary sector of the economy, and coupled with great enthusiasm for technical innovation and organizational changes within agricultural production. In France, according to Voltaire, the nation found itself in the year 1750 replete with operas, comedies and novels, and sat down to discuss corn,<sup>2</sup> and this was also the pattern elsewhere on the continent, in Great Britain - at this time notably in Scotland - and in Scandinavia. It seems reasonable to suppose, that this flood of sympathy for agriculture was connected with the pressure brought to bear on the agricultural sector by population increase and economic growth in other sectors, which, in turn, led to relative rise in prices on agricultural produce during the second half of the century. This general enthusiasm for agriculture in part inspired the rise of physiocracy as a doctrine and a movement and was in fact one of its prerequisites.<sup>3</sup> But just as the physiocrats Adam Smith was deeply concerned with the issue as to which sector naturally is leading progress towards modern bourgeois society; and the same question also preoccupied his unjustly neglected contemporary, the last of the great English mercantilists, Sir James Steuart.<sup>4</sup>

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<sup>2</sup>G. Weulersse, *Le mouvement physiocratique en France de 1756 à 1770. I* (Paris 1910), p. 25.

<sup>3</sup>M. Morineau, *Les faux-semblants d'un démarrage économique: agriculture et démographie en France au XVIIIe siècle* (Paris 1971), pp. 6-11, 31-38.

<sup>4</sup>J. Steuart, *An Inquiry into the Principles of Political Economy* (London 1767), p. 157.

Indeed, far from all eighteenth century agricultural enthusiasts are physiocrats. On the contrary, the physiocrats formed a small, clearly defined sect. Consequently, quite a few earlier advocates of agriculture in eighteenth century economic literature used to be classified as "pre-physiocratic". This category soon became, however, somewhat unwieldy. It proved to be too comprehensive and too diverse; above all, it tended to include authors, who not only must be characterized as mercantilist, but who even represented mercantilism in its most rational form (Cantillon).

After all, mercantilism and physiocracy are incommensurable quantities, despite Adam Smith's systematization. The literature we call mercantilist spans over at least one and a half century. It displays peculiar traits from country to country during this period. It undergoes in the course of time a considerable change in theory and methods, from the raw, apologetic merchant ideology of seventeenth century company directors, to the far more sophisticated analysis we find in Petty, Locke, Cantillon and Steuart. Admittedly the mercantilist authors share certain basic ideas and the claim to represent a new systematic knowledge in the area they now labelled political economy. But it is we, and not they, who following in the wake of the physiocrats and Adam Smith, bring them together under a common heading in the history of economic thought.

The lifespan of physiocracy, on the other hand, is very short; it lasted no more than about two decades as a dynamic movement (1755-75). Besides it is largely a French phenomenon. The famous proselytes among the enlightened pastoral princes of Europe represent without exception distorted forms of the doctrine. Physiocracy is however also a self-assured doctrinal entity, the first "school" of political economy, which was strictly disciplined and firmly centered round a scientific paradigm, with a terminology of its own, an economic and political program, a charismatic leader and its own journal. And the members of the school went forward under a common, somewhat pretentious name of their own choice. "Physiocrats" is a later invention. They themselves laid claim to the label "the economists", *les économistes*.

There are thus difficulties in comparing these established categories in the history of economic thought. There is however also the problem of catching the crucial elements of content in alternative discourses. Can we reasonably expect ideas about social development in the eighteenth century to be defined primarily in terms of whether they wanted to favour agriculture, industry or commerce? Eighteenth

century mercantilism and physiocracy are both constituent elements in what we might call the development of a bourgeois consciousness. As such, both of them tried to grasp the social conditions of their time and relate them critically to a better and more rational order of things. In general we should expect not only differences in outlook, but at the same time important common ideas and opinions. More specifically, an understanding of the importance of progressive agricultural reforms could hardly have been restricted to a small and rather sectarian group of exclusive economists; on the contrary, these ideas must have been fairly generally held, and were certainly not alien to those who advocated the development of commerce and manufacture. Obviously there exist important differences between mercantilists and physiocrats as to how they conceive the roll of agriculture in social and economic development. But these differences have often been misunderstood. As we shall see, the distinctive feature of the physiocrats lies neither in their understanding of the importance of agriculture, nor in their criticism of contemporary agrarian conditions. It lies instead in the fact that they advocated a system of capitalist agriculture, or better, a system of agrarian capitalism.

## 2

Physiocracy appears to be a doctrine on the exclusive productivity of agriculture. Agriculture alone yields a net product, a surplus over and above necessary costs of production. In trade and manufacturing, on the other hand, no more than simple reproduction takes place, replacement of the value of what production used up as raw materials or other means of production and wage-goods, mainly food. They are therefore sterile.

This provocative terminology is specifically physiocratic. But in fact the theses do not express very much beyond what is implicit in considerable parts of mercantilist literature.

An agricultural surplus was, after all, taken for granted. It was there in a tangible way, unaffected by any valuation problem, and more evidently so in pre-industrial, agrarian or feudal societies. The harvest had obviously to be sufficient not only for the upkeep of the working peasant families, the farmhands and maids, for seeds and fodder for the cattle, in short for the reproduction of manpower and means of production. In addition, there was a social class, which by virtue of ownership, sovereignty or supremacy over the land, exacted

rent, dues or taxes from the farmer. Large, unearned income from land also conferred ascendancy upon this class. Profits from trade or manufacturing were essentially different. The profits of the nailmanufacturer could not be ascertained until the completed nail had been sold and converted into ready money. Only then was it clear whether costs of production had been defrayed and production allowed for a profit. This profit was dependent on sales and prices. It was, in the words of Steuart, a "profit upon alienation".<sup>5</sup> Without a theory of value, it was impossible to decide whether it emanated from production or was a transfer of income.

The mercantilist doctrine of the net product of agriculture can be studied in the most remarkable work from the late mercantilist period, Richard Cantillon's *Essai sur la nature du commerce en générale* (c 1737, printed in 1755). According to Cantillon, the ownership of land in all societies is concentrated to a small minority. It is also the necessary foundation for a life of independence; everyone else lives at the expense of the landowning class, the proprietors. This is to say that all produce may be reduced ultimately into inputs of land - since "all individuals must have something to live by"; moreover, the price system allocates the land to different uses according to the way the proprietors spend their money and their consumption expenditure. In the history of economic analysis Cantillon is duly credited with the principle of "consumer sovereignty". But according to his theory, no one but the proprietor can exercise this sovereignty.

The surplus incomes of the proprietors differ in principle from the profits made by *entrepreneurs* within the agricultural, manufacturing and commercial sectors. These are uncertain incomes, made *au hazard*, and dependent on the divergence of the prices from the *valeur intrinsèque* of the commodities, their value as determined by their cost of production. Entrepreneurial profits therefore depend on the chances of "buying cheap and/or selling dear", in accordance with the common interpretation of profit in mercantilist literature. But Cantillon does not, as do the majority of mercantilist writers, simply relate such possibilities to various forms of oligopoly or oligopsony; he assigns them explicitly to the proprietors' demand for and expenditure on consumption goods. Profits are made, and necessarily so, at the expense of the proprietors; they are transfers from the proprietors' surplus. As such, they are both desirable and necessary for the development of trade and manufacturing. Above all Cantillon em-

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<sup>5</sup>Steuart, *op. cit.*, pp. 181 ff., 485.



phasizes that population growth implies that the proprietors must spend more on refined products and that their use of commodities requiring large land areas - such as hunting, horses and wine - must be limited.<sup>6</sup>

The notion that surplus incomes belonging to a rich and spendthrift class of landowners, in otherwise impoverished agrarian societies, should be transferred from this class and made available for the development of trade and manufacturing, was of course quite a natural and obvious one. Cantillon here merely formulates what can be said to be the rational core of a considerable proportion of mercantilist literature. An essential element of this literature is indeed a coherent set of proposals for such transfers of income, supported by arguments which appeal not, of course, to the interests of merchants or manufacturers but to those of the state, the prince, the nation and the proprietors. Earlier mercantilist writing had concentrated, more or less ambiguously, on the prospects opened by foreign trade to make profits at the expense of foreigners. But later analyses successively eroded those ideological opportunities offered by the crude doctrine of the balance of trade, pointing with increasing clarity to the recurrent surplus incomes of the native landowners as the primary potential source of saving and economic growth. It is these more open, more advanced and more controversial issues of social and economic development that constitute the proper context of physiocracy and its theory of the exclusive productivity of agriculture.

## 3

The theoretical contribution of physiocracy is mainly the work of one man, François Quesnay. He came from a middleclass background and was a successful physician and doctor with connections at the royal court. Not until he was in his sixties did he devote himself to economics, which then engaged him for more than a decade (1756-68).<sup>7</sup> His production in this sphere is not particularly extensive; neither did he attempt a systematic survey of the whole field of political economy. What we have is just over a couple of dozen articles, amongst them the commentaries to different versions of the famous *Tableau éco-*

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<sup>6</sup>R. Cantillon, *Essai sur la nature du commerce en général* (INÉD. Paris 1952), part 1.

<sup>7</sup>J. Hecht, "La vie de François Quesnay", in: *François Quesnay et la physiocratie. I* (INÉD. Paris 1958), pp. 211-294.

*nomique*, several of which remained unpublished in his lifetime. But his writing is uniform in character and very consistent. His style is seldom brilliant, sometimes pedantic or even inflated, often astute, always energetic and to the point. His personality was no doubt forceful and convincing. His disciples, such as Mirabeau and Dupont de Nemours, revered him to a degree, becoming faithful and eloquent advocates of his ideas.<sup>8</sup>

The first articles in the field of economics, *Fermiers* and *Grains*, were written for Diderot's and d'Alembert's Great Encyclopedia. In both of these articles, one idea is hammered into the reader: the difference between "large-scale" and "small-scale" farming, *la grande culture* and *la petite culture*. Large-scale farming existed in a few provinces in France. It was in the hands of well-to-do tenant farmers, *fermiers*, who, having invested their own capital in efficient draught-animals - horses - and effective implements, were capable of producing a sizable surplus, while paying high rents to the landowners. In the provinces dominated by small-scale farming, however, which meant practically the whole of France at this time, the peasants were poor. Here the proprietors had to entrust their land to share-croppers with oxen and wretched implements, and from these cultivators they could scarcely even recover their own contribution to production costs.<sup>9</sup>

The very first articles thus anticipated what was to be the specifically physiocratic idea of the exclusive productivity of agriculture. Agriculture alone could produce a surplus - the mercantilists had already admitted as much. The physiocrats objected, however, that it would produce this surplus only if sufficient capital was invested. Only farming amply supplied with capital was capable of providing a net product. Farming in the hands of poor peasants without capital was as incapable as trade and manufacturing of achieving more than the covering of production costs.

Looking back on history, Quesnay and the physiocrats saw France as having been a rich and powerful country, a prosperous agricultural nation, in the time of Henry IV and Sully about 150 years earlier.

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<sup>8</sup>V. de Mirabeau, *Philosophie rurale* 1 - 3 (Amsterdam 1763); P. S. Dupont de Nemours, *De l'origine et des progrès d'une science nouvelle* (= *Collection des économistes et des réformateurs sociaux de la France* 1. Paris 1910).

<sup>9</sup>"Fermiers", "Grains", in: *François Quesnay et la physiocratie*. II (INÉD. Paris 1958), pp. 427-510. Extracts from "Grains" transl. into English in R. L. Meek, *The Economics of Physiocracy: Essays and Translations* (London 1962), pp. 72-87.



In the French countryside there had been plenty of well-to-do *labou-reurs*, farmers who could plough, fertilize and work the soil effectively with implements and cattle of their own. The landowners and the Crown had thus been assured of plentiful revenue, while their expenditure, in turn, had provided employment for a large population. Since then, wars and the mercantile system had impoverished the countryside, ruined the farmers and in most parts of France, replaced the prosperous and productive *labou-reurs* with poverty-stricken and unproductive peasants. As this devastation swept the country, so did the golden eggs disappear: the country's net income fell and consequently also the level of population.<sup>10</sup> As far back as in the article *Grains*, Quesnay had criticized mercantilist populationism for regarding agriculture as nothing but an accumulator of labour and a manpower reserve:

Poor cultivation requires, to be sure, a great deal of labour; but since the cultivator is unable to undertake the necessary expenditure, his work is in vain and he is ruined; and the bourgeois idiots attribute his lack of success to laziness. They believe no doubt that all one needs to do is to till and torment the soil in order to force it to yield good harvests. People applaud when a poor man out of employ is told: go till the soil! It is the horses and the oxen and not the men that should work the land. It is the herds of cattle that should fertilize it, and without their help it will poorly reward the labours of the cultivators. And is it not also clear that the land never makes any advances, that on the contrary it makes us wait a long time for the harvest? What will then befall the poor man who is told go till the soil? Can he cultivate it on his own account? Will the farmers employ him, if they, in their turn are poor? Farmers, who find themselves incapable of meeting the costs required for a proper cultivation and to pay the wages of servants and workmen, cannot employ the peasants. The land, lacking manure and all but uncultivated, can only leave all of them to languish in poverty.<sup>11</sup>

Against this background, the physiocrats recommend a different course. They do not look forward to an everlasting process of development or change. On the contrary, they aim at a clearly visible end: the restoration of the lost state of agricultural prosperity. That means the re-establishment of a fund of productive riches, consisting of so much capital as is needed to reinstate all over France those well-to-

<sup>10</sup>"Maximes générales du gouvernement économique d'un royaume agricole", in: *François Quesnay et la physiocratie II*, pp. 960 f., 963 (Meek, *op. cit.*, pp. 242 f., 245 f.).

<sup>11</sup>*François Quesnay et la physiocratie II*, p. 505 (Meek, *op. cit.*, pp. 81 f.).

do tenant farmers who can produce by large-scale cultivation a surplus, or net product, from agriculture. There are chiefly two means of achieving this end: in the first place, a liberalization of the corn trade - internal and external - which will guarantee the farmer a high and steady price on his produce; and secondly a reform of taxation designed on the one hand to tie the fiscal interest of the state to the growth of the net product and the landowners' surplus income, and on the other, to exempt farmers' capital, wage incomes and the turnover of commodities from all forms of taxation. When the goal is achieved, however, and prosperity restored, there is no further growth in the physiocrats' vision. There will only be a constantly repeated, simple reproduction at the given level of prosperity, such as outlined, as we shall see, in the final version of Quesnay's *Tableau économique*.

Now these ideas require above all an analysis of capital and its roll in production. Barring their onesided agrarianism, the physiocrats' contribution to capital theory is indeed generally recognized as more important than that of their successors in classical political economy, Smith and Ricardo.

What the farmer spends on wages and other current expenses, the physiocrats call "annual advances", *avances annuelles*. If production is to yield a surplus, a net return over and above these current costs of production, the farmer must, however, have been able to make sufficient "original advances", *avances primitives*. What they meant was investment in more durable means of production like cattle, draught animals, ploughs and other implements; not, however, investment in land, since the farmer is supposed to lease the land, nor in soil improvement or buildings, which are the responsibility of the landowner. The physiocrats quoted contemporary assessments of the capital structure of French large-scale farming in support of their estimate that these original advances should amount in value to 5 times that of the annual advances, and that their reproduction involved an annual depreciation cost - called "interest" - amounting to 10% of their value. The annual *reprises* of a tenant farmer, i.e. what he must recover from his gross proceeds to balance his aforesaid costs of production, thus amounted to one and a half times the annual advances, or the annual advances plus 10% "interest" on the original advances. When these returns to the farmer had been deducted from the value of annual gross produce, there remained what the physiocrats called the net product or *produit net* which the landowner could lay claim to. The economic argument in favour of the farmer's capital expenses

was that they were necessary for limiting the annual advances and preventing them from eating up the net product.

An annual report for a physiocratic model farm might then have been as follows (with values in *livres*):

Costs and profits		Receipts	
Annual advances	2 000	Gross production	5 000
"Interest" on original advances (10% of 10 000)	1 000		
Net product	2 000		
Sum total	5 000	Sum total	5 000

The figures are taken from the finally standardised illustration of the possibilities offered by large-scale farming in physiocratic literature. The point is that the annual advances of 2 000 *livres* yield 100% in net product. This favourable ratio presupposes, however, a considerable sum for original advances amounting to 10 000 *livres* the annual depreciation of which is 1 000 *livres*, bringing the farmer's reprises to the sum total of 3 000 *livres*. The net product which the proprietor can lay claim to thus amounts to two fifths of total production.<sup>12</sup>

Following Cantillon, the physiocrats make a clear distinction between, on the one hand, the landowner or proprietor and, on the other, the tenant farmer. This distinction is not intended as an actual description of existing conditions of ownership. It serves an analytical purpose. The physiocrats are perfectly aware of the fact that the cultivator and the landowner are often one and the same person. One should nevertheless bear in mind the distinction between his roll as landowner and cultivator respectively.

Cantillon's model is explicitly based on conditions in England, and, as we shall see later, there is no doubt that the physiocrats too looked upon the same conditions as exemplary. According to Cantillon, however, the landowner's rent in England was considered to be at the level of one third of the value of production. The tenant farmer kept two thirds, using the half or one third for wages and other current expenses, while keeping the remaining third as his profit. This division anticipates that of the classics: rent, profit and wages. As to the ratio between the three, Cantillon observed that circumstances

<sup>12</sup>Articles by Mirabeau and Charles de Butré in *Ephémérides du citoyen* 1767:4, pp. 92 ff., 1767:9, pp. 5 ff., 1768:11, pp. 139 ff.

varied. In Milan, the tenant farmers handed over one half of the value of production to the landowner. The landowner, he maintains, tried to lease his land at as high a price as possible, but when he did so at more than one third of the value of production, the tenant farmer would usually be very poor. The Chinese landowner probably extracted from his tenants more than three quarters of the yield of their land.<sup>13</sup>

When comparing the physiocratic model farm with English conditions as described by Cantillon, two differences emerge. On the one hand, the proprietor's rent, or the net product, amounts to two fifths of the value of production, not to one third; on the other, the return to the farmer, over and above compensation for his current expenses or "annual advances", does not count as profits: it is a compensation for depreciation costs, costs for the reproduction of his original advances. Both these differences are connected with the fact that the physiocrats' model was never intended to represent actual conditions; it described a state of prosperity, which did not allow for further accumulation and growth. Under present conditions, the physiocrats argued, before prosperity had been achieved, the net product was not only smaller, but a considerable part of it should also be transferred to the cultivators to be used for the accumulation of productive capital in agriculture.<sup>14</sup>

## 4

According to Mirabeau, the physiocratic convert, three inventions had been of decisive importance to human progress: the art of writing, money, and their happy union in the *Tableau économique*.<sup>15</sup> This immoderate claim notwithstanding, it is indeed the *Tableau économique* which entitles Quesnay to a place of honour in the field of economics and social science. At least three spectacular contributions to the development of economic analysis were directly inspired by it, namely Marx' famous reproduction schemes in the second volume of

<sup>13</sup>Cantillon, *op. cit.*, pp. 26, 68-69.

<sup>14</sup>The assumption of leases for nine years offered a transfer mechanism. For the resulting "growth model", see the extract from *Philosophie rurale* transl. and commented upon in Meek, *op. cit.*, pp. 138-149; and further T. Barna, "Quesnay's Model of Economic Development". *European Economic Review* 8 (1976), pp. 315-338, esp. pp. 326-330.

<sup>15</sup>Mirabeau, *Philosophie rurale* 1, p. 19.

*Capital*, Wassilij Leontief's input-output analysis, and modern national accounting. Its indirect influence is more difficult to delineate. Quesnay made the first attempt to grasp the economic life of society as a logically consistent circular flow, the different parts of which were mutually interdependent: production, the distribution of income, and those patterns of expenditure and consumption which made possible renewed production. Thus he was the first to formulate a model of social material reproduction, with both immediate and long run consequences for theories of society and history.

The tableau, however, has a history of its own.<sup>16</sup> An earlier version appeared at the end of the 1750s. It takes the form of a zig-zag diagram which distinguishes different kinds of expenditure and illustrates how the proprietors, when spending their revenue on different kinds of consumption, affect the reproduction of their income. This conception depends heavily on Cantillon, but it tells another story. Cantillon had related the growth of population to the pattern of the proprietors' consumption: the needs of a growing population meant that the proprietors must limit their consumption of products requiring much land in favour of more labour-intensive products. Quesnay, on the contrary, set out to prove with his zig-zag diagram, that the money the proprietors spent out of their revenue on the consumption of agricultural produce, was transformed into *dépenses productive*, productive expenditure, in the hands of farmers with sufficient capital. This expenditure gave rise to net production and new revenue. On the other hand, what proprietors spent on goods and services from trade and manufacture, resulted in *dépenses stériles*, sterile expenditure, which affected the farmers' expenditure only indirectly and with leakage. If then expenditure and reproduction is the common theme, the concern of Quesnay's tableau is not the

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<sup>16</sup>The different versions of Quesnay's *Tableau économique* can be studied in François Quesnay et la physiocratie II, pp. 667-682, 793-814; in R. L. Meek, *op. cit.* pp. 108-167; and in F. Quesnay, *Tableau économique* (ed. by M. Kuczynski and R. L. Meek. London 1972). - The modern discussion about the relation between the zig-zag diagram and the last version (the *Formule*) was opened by H. Woog, *The Tableau économique of François Quesnay: an Essay in the Explanation of its Mechanism and a Critical Review of the Interpretations of Marx, Bilimovic and Oncken* (Bern 1950). I have earlier produced arguments in favour of the position that the history of the tableau includes a change in the very conception and its purposes: L. Herlitz, "The Tableau économique and the Doctrine of Sterility" and "Trends in the Development of Physiocratic Doctrine". *The Scandinavian Economic History Review* 9 (1961), pp. 3-55, 107-151.



reproduction of population and labour but that of net product and revenue. Revenue of a given size is shown to be exactly reproduced when the proprietors spend their money in equal amount versus the "productive" and the "sterile" sectors, and to increase or decrease according to whether the "productive" sector receives more or less than one half of the expended revenue.

Manifestly the zig-zag tableau had a purpose. It was distinctly normative. But despite its many commentaries, it was not without its ambiguities. Two considerations were linked together. The first, in line with Cantillon, was that expenditure engendered new expenditure and that the other classes lived off the money the proprietors spent. The second consideration, in repudiation of Cantillon, was that the expenditure of the capitalist farmers was productive, creating a net product, as distinguished from that of the entrepreneurs within trade and manufacturing. This polemic relationship to Cantillon makes the zig-zag tableau strongly demand-oriented. It looks like an argument in favour of the proprietors' high consumption of provisions, their *faste de subsistence*, and against their luxury expenses on manufactured goods, their *luxe de décoration*. At this stage, it seems in fact difficult to distinguish between the proprietors' consumer expenditure on agricultural products and "productive" expenditure.

Eventually, however, out of the copious explanations to the somewhat enigmatic diagram, there emerges a firm, exhaustive and consistent presentation of the necessary, real aspects of the reproductive process as illustrated: total material production and its costs, the overall distribution between social classes, and the restoration, by way of consumption, of the necessary prerequisite for the production of the next period. And it is now that the *Tableau économique* turns a complete circular flow where any eventual loose ends of expenditure in the zig-zag diagram have been tucked in, forced in under the overall objective of presenting a coherent process of material reproduction. This objective was attained by some later attempts at summarising the process outlined in the tableau: first a *Précis des résultats de la distribution représentée dans le Tableau*, from 1763 at the latest, and then in the definitive *Formule arithmétique du Tableau économique* from 1766.<sup>17</sup>

Thus the tableau did change as regards to both its purpose and character. The emphasis shifted to the macro-economic and -sociolo-

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<sup>17</sup>Herlitz, *op. cit.*, pp. 38 ff., 53 f.

gical level. The shift manifested itself partly in the fact that the unit of measurement in the tableau increased from hundreds and thousands to billions of *livres*, and partly in that the productive and sterile expenditure classes now emerged as well-defined social classes. The normative pupose of persuading the proprietors to spend the whole of their revenue according to a certain pattern, gave way to a more analytical approach, the aim of which was to expose the laws governing socio-economic reproduction in an agricultural nation in a state of prosperity. The demand-orientation of the zig-zag tableau gave way to a rigorous production-orientation leaving no doubt as to the nature of the proprietors' consumption expenditure. In his "second observation" of the *Formule*, Quesnau heavily underlined the difference between this type of expenditure and productive expenditure:

Expenditure for pure consumption is expenditure which annihilates itself beyond recall. It can only be maintained by the productive class, which besides can provide for itself. Thus this expenditure, in so far as it is not bestowed upon reproduction, ought to be regarded as sterile expenditure, and even as harmful or luxury expenditure, if it is superfluous and detrimental to agriculture.

The greater part of the proprietors' expenditure is certainly sterile expenditure; exception can only be made for that which is spent on improving their landed property and on expanding its cultivation. But since they are by natural law entrusted with the care of the administration of their patrimony, and with providing means for its maintenance, they cannot be confused with that part of the population which forms the purely sterile class.<sup>18</sup>

The proprietors' consumption expenditure, though sterile, was still considered essential and even indispensable to the reproduction. In his observations to the *Formule* Quesnay went on to warn against deviations or deductions from the natural order of expenditure, to the detriment of profitable prices and of the replacement of the producers' advances, but no longer in such provocative terms as the following ones, from one of the unpublished Encyclopedia articles of the 1750's:

The landed proprietors who receive these revenues should necessarily spend them annually so that this kind of riches become distributed to the whole nation. Barring such a distribution, the State would not be able to subsist. If the proprietors retained these reve-

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<sup>18</sup>*François Quesnay et la physiocratie II*, p. 803 (Meek, op. cit. pp 159 f.).

nues, it would be necessary to discharge them; thus this kind of riches do belong to the State as much as to the proprietors, who have the right to enjoy them only in order to spend them.

The proprietors are useful to the State only for their consumption; their revenues dispense them from work; they do not produce anything. If their revenues were not distributed to the profitable professions, the State would be depopulated by the greed of these unjust and perfidious proprietors. The laws would stand up against these men, who are of no use to the society and who deprive the fatherland of its wealth.<sup>19</sup>

There is a corresponding revision in Quesnay's evaluation of foreign demand. The Encyclopedia articles of the 1750's put foreign trade, and particularly export of agricultural produce, on a par with agricultural production among the nation's most profitable activities. This is heresy from the standpoint of the mature doctrine, where foreign trade is sterile without exceptions, and where the benefits of a free trade in corn are strictly limited to a once and for all increase in the domestic grain prices.<sup>20</sup>

## 5.

The process of reproduction in the completed *Tableau économique* is based on clearly defined prerequisites.<sup>21</sup> There are three classes in society. Firstly, we have the proprietors, i.e. the landowners, including the prince, the nobility and the clergy. Secondly, there is the productive class, which includes the tenant farmers who lease the land, and those they employ to cultivate it. The sterile class, finally, consists of those engaged in trade and manufacturing. We are dealing with an agricultural nation, where the agrarian section of the population is about twice as large as the sterile one. In addition to an agricultural production worth 5 billion *livres*, commodities and services in trade and manufacturing are annually produced to the value of 2 billion *livres*. A state of prosperity prevails. This means that *la grande culture*, large-scale prosperous farming, is predominant. The annual agricultural yield is produced by one million physiocratic model farms, each of them with the same cost structure and net productivity as met with

<sup>19</sup>Article "Impôts". *François Quesnay et la physiocratie II*, p. 582 (Meek, *op. cit.* p. 104).

<sup>20</sup>Herlitz, *op. cit.*, pp. 137-140.

<sup>21</sup>*François Quesnay et la physiocratie II*, pp. 793 ff. (Meek, *op. cit.*, pp. 150 ff.).



above. The annual advances in agricultural production thus amounts to 2 billion *livres*. However, the producers have, over and above these annual advances, paid out original advances to a total value of 10 billion *livres*, with an annual cost of depreciation and repair amounting to 10% or 1 billion *livres*. *Le produit net*, the net product going to the proprietors, thus amounts to 2 billion *livres*. A further underlying assumption is that the main points in the physiocrats' economic and political programme have been implemented. This means firstly that *le bon prix*, the highest possible but stable price, has been secured to the agricultural producers by the lifting of the existing restrictions on the internal and external trade with agricultural produce. Secondly, a direct and proportional taxation of the landowners' net product has replaced all other forms of taxation.

The author of the tableau then proceeds to illustrate the exchange between the social classes. He begins with the proprietors spending their revenue - 2 billion *livres* - on consumer goods, half of it going to the productive and half to the sterile class. The productive class then spends 1 billion *livres* on goods from the sterile class. The sterile class, in turn, buys farming produce - food and raw materials - spending a total of 2 billion *livres*, which equals the value of its annual production as well as the costs involved in producing it. In this way 2 billion *livres* are fed back to the productive class, money which can be used to pay the landowners their rent, so that the circulation of money can start anew. Farming produce has now been sold to the total value of 3 billion *livres* - 1 billion worth to the proprietors and 2 to the sterile class - and the remaining production worth 2 billion *livres* is spent by the productive class itself. So everything has been used up and the money has been circulated. Simultaneously all the necessary prerequisites for a new process of production on the same level have been restored in real terms. The proprietors have been assured consumption corresponding to the value of their net product. The sterile class has been supplied with so much raw materials and food which they can once again "combine" to make goods worth 2 billion *livres*. The prerequisite for agricultural production to be renewed is that the producers receive their *reprises*, i.e. that their necessary costs of production are covered. Here the *reprises* amount to 3 billion *livres*, 2 of these being annual advances and 1 depreciation and repair of the original advances. Indeed, the tableau allows for the productive class a consumption in real terms to the value of 3 billion *livres*, 2 billion worth of agricultural products and 1 of goods from the sterile class.

A table showing how much each of the three classes produces, and for whom, would be as follows:

<b>Consumers</b>	Productive class	Proprietors	Sterile class	Total production
<b>Producers</b>				
Productive class	2	1	2	5
Proprietors	-	-	-	-
Sterile class	1	1	-	2
Total consumption	3	2	2	7

Total production and consumption balance each other (= 7 billion *livres*). Production and consumption of each of the classes do not, however. Only the sterile class consumes as much as it produces (= 2 billion *livres*). That is why it is sterile: it produces nothing over and above its costs of production. The productive class, on the other hand, is productive because it produces the equivalent of 5 billion *livres*, while consuming only 3, thus creating a net product of 2 billion. The proprietors, finally, produce nothing at all, but consume the net product produced by the productive class. Thus they become *la classe disponible*, that class in society which, being under no obligation to participate in production, is available for the task of governing society.

Modern commentators have been unable to resist the temptation to eliminate both net product and sterility by redefining the relations between the classes of the tableau on the model of how industries are related to each other in modern input-output analysis. This is extremely easy to do. The productive class does after all pay the proprietors their annual rent - the net product - in money, and even if this transaction does not show in the tableau (nor in the above table), it is nevertheless recognized as a necessary link in the complete chain of transactions. Let us now interpret it in accordance with the other transactions in the tableau, as an exchange of equivalents, so that the productive class buys, let us say, landowner services produced by the proprietors! If these services are included, the proprietors' production increases from 0 to 2, the consumption of the productive class from 3 to 5 and the total production and consumption of the tableau from 7 to 9 billion *livres*. In addition, we arrive at a balance throughout between production and consumption, not only aggregated and for the sterile class, but also for the proprietors and the productive class. In

this way all classes become equally productive: each produces exactly as much in value as it consumes.<sup>22</sup>

Significant for Quesnay's conception of society is, of course, the fact that he does not recognize such a complement, even though it lies very close at hand. Indeed, the physiocratic doctrine does not allow for an interpretation of the net product as the return for landowner services. The net product is *don gratuit*, a free gift. It is also *revenu disponible*, an income freed from any productive obligation. In fact, it is the only, in this sense, disposable income in society - and besides, for this very reason, the only available object of taxation. The physiocrats regarded the landowning class as eminently available for the rendering of important services to society. But this means, in turn, that the proprietors cannot be given the roll of producing landowner services exclusively intended for their tenant farmers. The complement seems to be misleading also from the standpoint of pure economics. Equalities between production and consumption for each of the sectors in a simple Leontief model would indicate that there are no net savings by any of the sectors. Given the tableau's consolidation into three sectors, we are in fact more faithful to the intentions of Quesnay when entering a positive net saving with the productive class, which is transferred unilaterally to cover the corresponding dissaving of the proprietors.

Even with full due accorded to Quesnay's own basic assumptions, there remain some inconsistencies or "flaws" in his tableau, which have been the objects of much discussion. It is argued here that they have to be understood as the imprints of the history of this remarkable construction and of attending changes of intentions and doctrinal positions.

In the table above, total production and consumption is 7 units of value (billion livres). But the consumption of the sterile class consists to one half of raw materials and its value added is thus only 1. The consumption of the productive class, for its part, includes capital consumption to the value of 1. Gross national product thus amounts to 6, and national income to 5, consisting of the proprietors' revenue (2) and the final consumption of the productive (2) and the sterile class (1). This is consistent with the relative distribution of the labour force (2:1) between producers and steriles, as specified by Quesnay. The problem is that whereas final consumption of producers is made up

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<sup>22</sup>A. Phillips, "The Tableau économique as a Simple Leontief Model". *The Quarterly Journal of Economics* 69 (1955), pp. 137-144.

equally of agricultural and manufactured goods, the steriles seem to have nothing to consume but the food bought from the producers. The *Formule* leaves the sterile class with nothing to consume from its own production and conversely with too much of agricultural goods or food in relation to its number. Its manpower, however, as it is limited by the wages received from proprietors and producers, does not allow for any further manufacturing. It was Ronald Meek who proposed the ingenious solution: let the sterile class exchange one half of its agricultural wage goods into manufactured goods by means of foreign trade. Meek showed in fact that the assumptions concerning manpower, production and consumption become consistent only by recourse to foreign trade. He also referred to the zig-zag, of 1759, where this solution is indicated clearly in the explanation, at least as a possibility. But he failed to admit that foreign trade, on the contrary, is explicitly excluded from the assumptions underlying the pattern of expenditure in the *Formule*.<sup>23</sup> The problem with the consumption of the sterile class in the *Formule* is thus inherited from the shift in the tasks of the tableau associated with its transformation to a closed circular flow and with the slight change in the evaluation of foreign trade already mentioned.

Of such inheritance there is more. The zig-zag diagram, in conformity to its general orientation, concentrated on final demand. National income, as in the *Formule*, is 5 units and allocated to the three classes in the same proportions. The aim of the zig-zag is to show that it will be reproduced unchangeably if and only if distributed by every class equally between productive and sterile expenditure, otherwise growing or declining. But the prerequisites of intra- and inter-sectoral relations differ significantly from those of the *Formule*.<sup>24</sup> According to the explanation of the zig-zag, 3 of 5 units of agricultural gross produce are used up by the producers themselves for food, fodder and capital consumption and 2 are sold to proprietors

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<sup>23</sup>"Problems of the Tableau économique", in: Meek, *op. cit.*, pp. 282-283. The essay was published earlier in *Economica* 27 (1960), pp. 322-347. Cf. the 5th observation to the *Formule*, François Quesnay et la physiocratie II, p. 805 (also in Meek, *op. cit.*, p. 162).

<sup>24</sup>Illuminating by this comparison is indeed the disaggregation of the "sectors" of the tableau into industries and households by means of a Social Accounting Matrix, made in Tibor Barna, "Quesnay's Tableau in Modern Guise". *The Economic Journal* 85 (1975), pp. 485-496, which moreover makes extensive use of the explanation of the zig-zag tableau of 1759, in Quesnay's *Tableau économique* (eds. Kuczynski & Meek, London 1972).

and steriles. Thus there is no account of the material reproduction of agricultural raw material worked up in sterile production. Moreover, there is neither in the diagram nor in the explanation any hint at the corresponding inter-sectoral transaction: the expenditure of the advances of the sterile class on agricultural produce.<sup>25</sup> In the *Formule*, however, where especially the prerequisites of inter-sectoral flows has to be clearly recognized, the annual advances of the sterile class are unambiguously spent on raw materials produced by the productive class. The 5 units of agricultural gross produce are then disposed of as follows: 1 for the proprietors, 2 for the sterile and 2 for the productive class. Quesnay did not forget the fodder. But, being now at a loss to account for it as a part of an agricultural gross produce of 5 units, he had to degrade it to the position of surrounding circumstances mentioned in the attending observations.<sup>26</sup> No doubt his conception of basic economic facts and conditions proves stable and coherent. But the evidence of a change of the theoretical approach is plain enough.

Concerning the sterile class, the *Formule* does not account for any capital consumption costs corresponding to the farmers' so-called "interest" on original advances, i.e. costs of depreciation and repair for implements lasting several years. We have seen that the physiocrats considered these costs essential for the productivity of agriculture. The production costs of the sterile class, however, are limited in the tableau to costs for raw materials and wages (food). In defense of this striking bias it has been argued that fixed capital equipment in French manufacturing industry was rather primitive and difficult to distinguish as an economic category of its own.<sup>27</sup> This explanation is however not very convincing: why should looms be more difficult to perceive than horses and ploughs? The flaw seems to be in the eye of the beholder. In Quesnay's first commentaries to the zig-zag diagram, we do come across an assessment of the "original advances of the sterile class", invested in workshops, tools and

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<sup>25</sup>Herlitz, "The Tableau économique and the Doctrine of Sterility". *The Scandinavian Economic History Review* 9 (1961), pp. 20-21. The lacuna was noted also by Meek, *op. cit.*, p. 276, n. 4, who seems however to have regarded it as insignificant. But in the dynamics of the zig-zag, the expenditure of the sterile class on replacement of its advance is in fact treated as pure leakage, which may cause a decline in national income. Cf. the critical comment on this in Barna, *op. cit.*, p. 493.

<sup>26</sup>Herlitz, *op. cit.*, pp. 21-23; cf. Meek, *op. cit.*, pp. 278-281.

<sup>27</sup>Woog, *The Tableau économique of François Quesnay* (1950), p. 37.



machines. This capital later disappears from the assumptions of the tableau and its commentaries, however.<sup>28</sup> Once this capital has disappeared, the sterile class emerges as essentially a class of wage earners.

## 6.

Eighteenth century agromania was, to a large extent, also anglomania. England was the foremost model where agriculture was concerned. This is, not least, true of French literature on agricultural techniques and agricultural economy from the middle years of the century.

The physiocrats joined in the general praise of English agriculture. For them English agricultural experiences provided evidence of that prosperity where the farmer's yearly outlays yielded 100% net return. Indeed England's agricultural trade policies were considered admirable, as was its taxation of landed property. England was favourably compared with Holland. As the physiocrats saw it, agriculture was the backbone of England's economy, in the same way as the export of farming produce was the backbone of its foreign trade.

But what the physiocratic doctrine above all made use of was the peculiar structure of English landownership.

In England feudal manorial relations were dissolved rather early. The feudal system, with its hierarchy of rights over one piece of land, gradually gave way to a more consistent pattern of individual private ownership, the property rights over land being also individualized, as manifested in the early enclosure movement. This development was accompanied by the consolidation of the large estates, which expanded notably in the seventeenth and eighteenth centuries, absorbing considerable parts of the former peasant and freeholders' land. But the English landlords did not, as a rule, let their land to small-scale tenant cultivators. Instead, they usually let it in large units, and on strictly commercial terms, to agricultural entrepreneurs, who invested capital of their own in the farming of the estates, and employed wage labourers. England thus differed significantly from the continent in not having a peasant class. English land was neither owned nor farmed by peasants; it was owned by large-scale land-

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<sup>28</sup>Herlitz, "Trends in the Development of Physiocratic Doctrine". *The Scandinavian Economic History Review* 9 (1961), pp. 147 f.

owners and farmed by capitalists. This was, with due simplification, the specific agrarian and social pattern in England.

Conditions in France at this time were on the whole entirely different. In limited parts of the country we find large estates, similar to the English ones; but certainly the great majority of French land was farmed by poor peasants. Some of them owned the land they tilled, others not. Whichever the case, the land they farmed was burdened not only with taxes to the crown and tithes to the church, but also with a large number of feudal dues and other seigneurial rights, which supplemented or limited the claims of property.

A duly simplified picture of English agrarian conditions was then presented by the physiocrats as the natural order in a prosperous agricultural nation. They emphasized deliberately the contrast with France. Indeed the French peasants did not embody the physiocratic conception of a *classe productive*. Quesnay underlined the difference in his very earliest articles:

By the wealthy tenant farmer we do not contemplate a cultivator who ploughs the land himself. He is in reality an entrepreneur who manages his entreprise and makes it profitable by using his intelligence and his fortune. Farming in the hands of prosperous cultivators is a most honourable and remunerative profession, destined for free men, who are in a position to provide for the considerable outlays required to cultivate the land, and who thus offer employment to the peasants, constantly providing them with the dependable earnings which are their due.<sup>29</sup>

As for the French landowning class, to what extent could its members identify themselves with the class of proprietors in the *Tableau économique*? To some extent the assets of the French landowner consisted of his franchise privileges which, together with other feudal rights, supplied him with considerable incomes from more or less dependent peasants. The net product belonging to the physiocratic proprietors, on the other hand, is a purely capitalist land rent, freely contracted when land is leased on commercial terms, its sole privilege being to be singled out from other forms of income for taxation. In the definitive tableau, Quesnay suggests a sharing of the net product according to the following principles: two seventh to the state in taxes, one seventh to the church and four seventh to the proprietors. No other form of taxation, he argued, could provide the nation with such a large income without causing a decrease in its annual reproduction,

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<sup>29</sup>François Quesnay *et la physiocratie II* (1958), p. 483.



and therefore it was in the common interest of the proprietors, the sovereign and the entire nation that taxes as a whole were levied directly on the net product of landed property. As for franchise privileges, Quesnay notes in passing:

Should property exist which was exempt from taxation, this should be so only in consideration of certain advantages to the state, and these should then be accounted for as part of the income of the state; such franchises ought only be granted, however, on very good grounds.<sup>30</sup>

As so often in the abstract criticism of society of the French Enlightenment, a natural order, dictated by reason, mockingly serves to mirror contemporary reality.

England was not, however, a model in every way. The form of government which the physiocrats advocated was *le despotisme légal*, legal despotism. They rejected the doctrine of the division of power and especially the idea of a legislative parliamentary assembly. Positive law was not just made, it should rather be derived from an understanding of the natural order of society. Such a legislation might profit by exposure to an enlightened, if not free, public opinion. It should not, however, be entrusted to assemblies where a variety of particular and mutually hostile interests were represented. Legislative and executive power served one and the same purpose, namely to establish, by political means, a social order given by the laws of nature. Power should therefore be concentrated to one single, undivided authority. Under a hereditary monarchy, this authority stood free from particular interests. The physiocratic principle of taxation gave the sovereign a share in all individual landed property, thus encouraging him to watch over the growth of the net product in his own interests.<sup>31</sup>

In these political ideas abstract rationalism is very much in evidence. They implied, however, also an attitude towards contemporary political and constitutional issues. We now know that Quesnay's political views were partly based on a positive appraisal of the roll played by monarchy in French history. He was certainly deeply convinced that the decadent monarchy of the *ancien régime* had to be re-

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<sup>30</sup>*Op. cit.*, p. 797 (*Meek, op. cit.*, p. 153).

<sup>31</sup>P. F. J. H. Le Mercier de la Rivière, *L'ordre naturel et essentiel des sociétés politiques* (= *Coll. des économistes et des réformateurs de la France*. 3. Paris 1910).

dressed. His political conceptions underlines the utopian character of his ideas about social change.<sup>32</sup>

## 7

Physiocracy bears the unmistakable stamp of bourgeois ideology. This is so, not because its advocates belonged to groups which were decidedly bourgeois, nor because they wrote precisely for them. Neither did they actually voice what might be defined as specifically bourgeois class interests. But they are bourgeois in the sense that they expressed a criticism of the *ancien régime* which was abstract, certainly, but nevertheless radical and sweeping, and that they with their criticism anticipated essential elements in the classical bourgeois understanding of economics and society, while presenting capitalist relations of ownership and production as the natural order of society.

In their natural order, power in society lies with landed property. What they envisaged, however, was bourgeois landed property as in England, stripped of all privileges and feudal rights, the owners of which could appropriate the surplus produce thanks to the accumulation of capital and to the competition over their land among the owners of accumulated capital. Set aside the general public duties which the physiocrats assigned to the landowners, as did Adam Smith, and their proprietors are in every way as unproductive, superfluous and parasitical as Ricardo's theory later perceived them. This is made all the more clear by the fact that the landowning class is singled out as the only class available for taxation.

The physiocrats maintained that agriculture alone was productive, while trade and manufacturing were sterile; but as we have seen, this was essentially a theory of the productive roll played by capital in production. Not all farming was productive. Poor peasants were not more productive than those employed in trade or manufacturing. The productive class in the *Tableau économique* is productive thanks to its invested capital, while the sterile class lacks capital. Indeed it can be argued that Quesnay upholds his theory of the exclusive productivity of agriculture only by reserving capital for agricultural production alone, and by defining the sterile class as wage earners to landowners and farmers.

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<sup>32</sup>E. Fox-Genovese, *The Origins of Physiocracy: Economic Revolution and Social Order in Eighteenth-Century France* (Ithaca & London 1976).

Despite their one-sidedness, the physiocrats anticipated the tripartite class division of society which was to be the tool of classical political economy: workers, capitalists and landowners, with their corresponding categories of income: wage, profit and rent. Wage is understood in the same way as later by Smith and Ricardo: it is daily bread, food necessary for the reproduction of the labour power. The proprietors' income is nearly identical as to its character and determining factors with the classical rent, i.e. the capitalist land rent. Profit, however, does not appear in the completed version of the *Tableau économique*. Here the productive class seems to be capitalists with costs only, and no returns to their capital; but then this tableau describes the state of prosperity where farmers' equipment is sufficiently developed, where agriculture's claim to capital is satisfied and where, accordingly, the accumulation of new capital is zero. Nor in this respect are we very far from classical ideas. Even Adam Smith did not hesitate to describe a state of affairs where the rate of profit went down to zero because the nation was "fully stocked", replete with capital. With Ricardo, however, this perspective took on a different meaning. Residual profits were squeezed between wages and rents, because of declining productivity in agriculture. Prosperity turned into stagnation in capitalist development as the result of the shortage of land.

## 8.

During their brief period of glory in the 1760s in France, the physiocrats acted as a sect and were considered as such by their contemporaries. It was, however, a sect within a broader movement.<sup>33</sup> This movement maintained the importance of agriculture and advocated various reforms. Broadly discussed were technical improvements and changes in organization such as new implements, new crops and crop rotation, the abolishment of the open field system by enclosures and other steps towards individualized property rights. But there was also a lively interest in changes of economic policy such as the defense of private ownership, reforms in the arbitrary system of taxation and greater freedom in the corn trade. The sect supported the demands

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<sup>33</sup>For a broad description, see the works of G. Weulersse, *Le mouvement physiocratique en France de 1756 à 1770* (Paris 1910), *La physiocratie à la fin du règne de Louis XV, 1770-1774* (Paris 1959), *La physiocratie sous les ministères de Turgot et Necker, 1774-1781* (Paris 1950).

for these policy measures; but it made certain distinctive claims of its own. To begin with it had pretensions of representing a science of economics with a revolutionary new insight into the natural order of society. The sect further declared that trade and industry were sterile, attacked what it called the mercantile system, while advocating the restoration of prosperous capitalist farming, which the mercantile system was said to have ruined. Moreover, it concentrated its reforming efforts to the sphere of economic policy - dissociating itself to a certain degree from the interest of the salons in agricultural technology, where they, not without reason, detected an unduly patronizing attitude, a meddling in affairs which were the concern of the producers. Here, too, in the field of economic policy, the sect made demands of its own of a far-reaching nature - a somewhat drastic reform of taxation and the total liberalization of internal and external trade - appealing to an enlightened, powerful and despotic government to attain these ends.

What, then, did the physiocrats achieve in terms of actual results? Were any reforms realized? Did the social order change according to their expectations? Were any theoretical assertions confirmed?

They did achieve some temporary measure of success over the corn trade in France, a notably more liberal trade policy being adopted as early as the second half of the 1760s. The sect rode with this tide while it lasted. Provocative as ever, the physiocrats had claimed that the free trade in corn would guarantee the *bon prix*, the highest possible corn price. In this respect they got more than they bargained for, in that the price of corn, for several other reasons, rose much more sharply than they had predicted. As to the effects free trade in corn would have on providing bread for the poor, the physiocrats had claimed that free trade would ensure a price that was not only higher but also stabilized at the new level for longer periods; the violent fluctuations in corn prices from one year to next, which were so common, could thus be avoided. Quesnay demonstrated in several ingenious ways how such a levelling in the price of agricultural products also would benefit the poor, even if the prices settled at a higher level.<sup>34</sup> However, the predicted levelling of prices failed to occur; in fact, the high prices, which remained extremely unstable, caused such

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<sup>34</sup>Fresh evidence on the physiocrats' theories of prices and value is now available in G. Vaggi, "The Physiocratic Theory of Prices". *Contributions to Political Economy 1983*, pp. 1-22; and Vaggi, *The Economics of François Quesnay* (London 1987).

a reaction that the government was obliged to revert to restrictions in the freedom of corn trade. There was, no doubt, plenty of sound economic logic in the way the physiocrats analysed corn trade and price formation. What they overlooked was the fact that the corn trade was not restricted merely by custom duties and obstacles to trade of a political nature; it was also limited by its high relative transport costs which became prohibitive for rather short distances. Another century would elapse before railways and steamships made possible the levelling out of the annual corn prices in Western Europe.

The physiocratic proposals on taxation - a direct proportional tax on the net product or proprietors' revenue from landed property as the sole form of assessment - must have seemed somewhat piquant in 18th century France. The proprietors themselves were obviously not attracted by the idea. Nor could the Crown have been particularly convinced that Quesnay's proposals were realistic when reading his calculation in the commentary to the final version of the tableau that the national revenue in state taxes and church tithes would amount to 43% of the net product, once prosperity reigned.

From the point of view of public finances, the proposal was decidedly ambiguous. The net product going to the proprietors as revenue was alone subject to taxation, as it was the sole disposable income, the only income not tied to the necessary costs of reproduction. The net product was apparently disposable in this sense in a state of prosperity, when the land was cultivated with the aid of sufficient capital equipment and further accumulation of capital therefore was unnecessary. But current conditions were a far cry from prosperity, and in the meantime great amounts of capital had to be accumulated. The physiocrats could not, however, refer to any other source than the net product for the accumulation of new capital. But in as far as the net product must be used for capital formation, it was no longer disposable. Was all of it then available for taxation?

Now the physiocrats believed that as long as there was a shortage of agricultural capital and well-to-do cultivators, leasing the proprietors' land on competitive terms would ensure the tenant farmer a share in the net product, in other words a profit, which he in his turn unfailingly transformed into new capital. The proprietor's income from the lease, his revenue, then turned out lower than the actual net product from his land. True to their concern for the supply of capital to agriculture, the physiocrats argued, of course, that eventual profits for the farmers always should enjoy total immunity, unconditional freedom from all forms of taxation, in spite of the fact that they were



a part of the agricultural net product. Thus not even the net product was available for taxation. The general principle was, instead, that the only object of taxation allowed was the landowners' revenue, their income from the leasing of their land. This conclusion, in itself logical, led to conceptual ambiguities: the physiocrats sometimes defined the net product as the equivalent of landowners' revenue. They also rejected all attempts to calculate the net product for taxation purposes by estimating yields and costs. Competitive leasing alone truly measured how much could be levied in taxes, and land which was not leased out, should be taxed by comparison with land which was, or possibly according to market value.

The policy of a single tax on land rent was consequently not particularly attractive in France, and even less so in England, the country which served as a model.<sup>35</sup> On the other hand, some interest was shown in other parts of Europe, such as Baden, Toscana and, to some extent, even Sweden. There we find princes who wished to be enlightened despots, while having no objection to increasing their tax revenues from an agricultural surplus. And so they asked the advice of the French economists, who were in principle not adverse to offering their services. The hoped for results were not, however, forthcoming. The situation in the countries concerned was nowhere near physiocratic prosperity or the English agrarian social order. The land was not cultivated by rich capitalist tenant farmers, but by peasants with more modest resources at their disposal. The physiocrats refused to legitimate a more efficient taxation of agricultural sectors dominated by labour-intensive small holdings. "It will become evident", as Mirabeau wrote to Gustav III's advisor Carl Fredrik Scheffer in the year 1780, "that all this *petite culture*, which to the inexperienced eye appears so uncommonly productive and vigorous, with a constantly growing population and with a semblance of prosperity, nevertheless produces no net product and therefore nothing for the Prince."<sup>36</sup> And so the princes took their leave of the physiocrats emptyhanded.

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<sup>35</sup>For a reaction, see A. Young, *Political Arithmetic, Containing Observations on the Present State of Great Britain* (London 1774).

<sup>36</sup>Letter from Mirabeau to C. F. Scheffer "avril 1780", in Swedish National Archives, Stockholm. Herlitz, *Fysiokratismen i svensk tappning 1767-1770* (Göteborg 1974), pp. 112 ff. - About the experiment in Baden: *Carl Friedrichs von Baden brieflicher Verkehr mit Mirabeau und Du Pont. 1-2* (hrsg. G. Knies. Heidelberg 1892).

Mirabeau's unshakable conviction leads us to the perhaps more important question as to what extent the physiocrats' more long-term perspectives were fulfilled.

A couple of decades after the decline and fall of the physiocratic school, the *ancien régime* met its fate in the French revolution. It has been said that the revolution implemented the physiocratic taxation programme, though in an even more radical way, through the confiscation of feudal rights on land. It would be more true to say, however, that the abolishment of feudal rights during the revolution was a prerequisite for the physiocratic programme - and indeed for their natural order as a whole. What did not come true was their vision of an agrarian capitalism, of large-scale capitalist agriculture. The revolution did not transfer the land into the hands of wealthy capitalist farmers. On the contrary, it confirmed and consolidated the class of small holders, who ever since have so markedly characterized French countryside and social conditions.

This development was not, however, reserved for France. The English relations of production and ownership in agriculture, regarded as the natural order by the physiocrats, turned out to be the exception and not the rule in the development of capitalism in Europe. European agriculture expanded swiftly in the century following the physiocrats; but this expansion was for the greater part of this period labour-intensive - and landsaving - in character, and took place essentially within the framework of the predominance of peasant proprietors' family holdings in production. Such as they were, they were able to provide employment and food for a rapidly growing population as well as manpower for the early stages of industrial growth.

The physiocrats underestimated the ability to adapt, the dynamics and the potential for growth in their much decried *petite culture*. They were by no means alone in this; they were followed by Ricardo, Malthus, Marx and perhaps the majority of subsequent economists. Economic theory found in general some difficulties in explaining and digesting the extremely protracted and tough resistance to capitalist relations and production logic, so successfully mobilized within the agricultural sector. The physiocrats' misjudgement was however in some sense more formidable. Their ideology, perhaps the most bourgeois of all the ideologies of the Enlightenment, saw capitalism as exclusively agrarian; and not only did this view lead them astray in their assessment of the potential for development within agriculture,



it also committed them to an exceedingly limited understanding of the development of capitalism.

Most illuminating is perhaps their conception of capital, at once advanced and exceedingly one-sided. The net product of agriculture was dependent on investment in produced means of production such as draught animals and implements. Without such investments, work on the land was just as sterile as any other work, its value added being devoured by labour costs. The function of capital was, therefore, to be substituted for labour in agriculture, so that total costs decreased, allowing scope for a net return. The size of this net product then decided the scope for the sterile services in trade, manufacturing and other areas, and both reached their maximum in the state of prosperity, where the opportunities for substitution had been exhausted. This perspective excluded in advance, however, the revolution in the productivity of human labour which was to be the historical contribution of capitalism. The industrial transformation of processes of production and patterns of consumption still belonged to the future, certainly, but the first steps along this road - the control, disciplining and intensification of wage labour, together with the development of the division of labour - were recognized not only in classical political economy but before that by the mercantilists.<sup>37</sup>

So the physiocrats cannot generally be said to belong among those who "were proved right". But should anyone on this account wish to draw the conclusion that they merely belong to the history of economic ideas and analysis and have been of no importance for what actually happened in history, I would not agree. Ideas influence history in other ways than as correct predictions. Trivial ideas remain trivial whether their predictions prove true or not. The question as to why some people in the past were proved right by history is of course of considerable interest, but so is why anyone was proved wrong. The physiocrats articulated essential problems, intentions and conflicts on the threshold of bourgeois society. As critics of contemporary social conditions, they were, to be sure, both abstract and utopian but, for the very same reason, firmly uncompromising. Surely they should be accorded significance not only for some historians but also for history.

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<sup>37</sup>Cf. Quesnay's position in the dialogue "Sur les travaux des artisans", *François Quesnay et la physiocratie II*, pp. 885 ff. (Meek, *op. cit.*, pp. 203 ff.).



Rapport

- Nr. 1. Sverker Jonsson, Norrbotten i Sverige
- Nr. 2. Bertil Andersson, Malmö diskont 1803-1818
- Nr.3-4 Urban Herlitz, Nattväktaren, städgumman och storebror
- Nr. 5-6 Ingemar Nygren, Göteborgs Kreditmarknad 1820-1913