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Natural (or Normal) Prices: Some Pointers*

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Adam Smith states that a commodity is sold at its "natural price" when it yields "neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates",[1] i.e. according to the rates which are regarded as "ordinary or average"[2] in the place and at the time under consideration.[3] However, Ricardo allows no place in the natural price for rent, and Marx (for reasons in part similar, in part different) follows him in this. Since these three authors are to be our guides in the enquiry we are now embarking on, to assume that natural resources are freely available seems the only way of avoiding the endless sidetracks of continual distinction. (The hypothesis will be introduced in the course of § 1).

A further limitation we shall impose on our exposition, for the sake of the above criterion, will be to assume that the capital employed in the economy consists *exclusively* of the necessaries "advanced" to the workers

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[1] A. SMITH, *An Inquiry into the Nature and Causes of the Wealth of Nations*, edited by Edwin Cannan, London, Methuen, 1961, p. 62.

[2] *Ibid.*, p. 62.

[3] The concept of "rate" of rent, wage and profits is perhaps worth commenting on briefly. By "rate of rent" and "rate of wage" we mean, respectively, the rent per unit of time of a unit of land and the wage per unit of time of a unit of labour: for example, the annual rent in pounds sterling of a hectare of land and the annual wage in pounds sterling of a worker. Likewise, by "rate of profits" we mean the profits per unit of time of a unit of capital. However, there is a difference. Capital is not measured in physical units like land and labour, but in units of value: pounds sterling, in our example. The profits in pounds sterling obtained from the employment of a certain capital for one year must therefore be referred to a magnitude — the amount of the capital employed — also measured in pounds sterling. The resulting "rate" is thus a ratio, e.g. 10 percent. (The same applies to the "rate of interst".)

as their wages.[4] Thus we shall avoid the problem of that "fourth part" of the price — corresponding to the total or partial consumption of the means of production — that, Smith holds, "resolves itself" in rents, wages and profits, together with the rest of the price:[5] a thesis shared by Ricardo, but denounced by Marx as the erroneous premise marring Ricardo's entire theory of value.

Having thus neutralised these differences between our three authors, we shall draw freely on one or other of them as necessary or convenient to our endeavour to elucidate the *meaning* to be attributed to natural prices (the problem of *determining* these prices remaining beyond the scope of our present concern). The need for this elucidation derives from the twofold fact that the prices at which commodities are actually bought and sold — the "market prices" — normally differ from the natural prices; and that for natural prices Smith, Ricardo and Marx nevertheless recognise the status of theoretical variables while denying this status to market prices.

As the question we ask about natural prices is not "how are they determined?" but rather "what are they?", we shall also be able to make use of some indications contained in the works of other authors: Malthus, J. S. Mill and above all Marshall, although the latter belongs to the new theoretical approach, marginalism, which assumed a dominant role towards the end of the 19th century.[6]

1. Natural prices as centres of gravitation of market prices

In Adam Smith's opinion, the fact that the market price of a commodity is "either above, or below, or exactly the same with its natural price" depends on "the proportion between the quantity which is actually brought to market" and the "effectual demand" (or, as we shall say here, "effective

[4] If the workers' consumption includes agricultural products harvested yearly, such as corn (the "wage-commodity" par excellence), then the social capital must of necessity include a stock of these products sufficient to guarantee the survival of the workers from one harvest to the next. The factual basis on the classical concept of the wage as an "advance" of consumer goods to the workers is to be sought in this circumstance: not, or at least not necessarily, in the actual supply of consumer goods to workers at the start of each agricultural year in return for the labour they will perform during that year. Whether the wages are paid in kind or in money, whether in advance or not (and therefore whoever is in charge of conserving the corresponding stocks of corn: the workers themselves, their employers or some intermediaries), the truth of the fact remains that it is the social capital that must provide for the support of the workers.

[5] Cf. *ibid.*, p. 57.

[6] As Schumpeter puts it, "Marshall's theoretical structure, barring its technical superiority and various developments of detail, is fundamentally the same as that of Jevons, Menger, and especially Walras, but... the rooms in this new house are unnecessarily cluttered up with Ricardian heirlooms, which receive emphasis quite out of proportion of their operational importance". J. A. Schumpeter, *History of Economic Analysis*, New York, Oxford University Press, 1954, p. 837.

demand"),[7] i.e. "the demand of those who are willing to pay the natural price of the commodity".[8] If a greater quantity is brought to market than the market is prepared to absorb at the natural price, then competition between sellers will cause the commodity to be sold at a lower price and it will be impossible for all three rates — of rent, wage and profits — to reach their normal levels. If it is the rent that falls short, then "the interest of the landlords will immediately prompt them to withdraw a part of their land; and if it is wages or profit, the interests of the labourers in the one case, and of their employers in the other, will prompt them to withdraw part of their labour or stock from this employment".[9] As a result, production decreases and the market price rises. If, on the contrary, the quantity brought to market comes short of the quantity the market is prepared to absorb at the natural price, then competition between purchasers will cause the commodity to be sold at a higher price: above-normal rates are obtained, production increases and the market price comes down. Thus "the quantity of every commodity brought to market naturally suits itself to the effectual demand"[10] and the natural price "is, as it were, the central price, to which the prices of all commodities are continually gravitating".[11]

While in the above description landlords, workers and capitalists are in all respects viewed on the same plane, Ricardo and Marx appear to see the benefits and detriments of changing market prices as going, in the first place, to the capitalists (like Smith, they hold that capitalists act as entrepreneurs and can make use of loans in addition to their own funds). It is through the decisions made on the employment of capital that, in their view, land and labour are also directed along the lines required. "It is then the desire, which every capitalist has, of diverting his funds from a less to a more profitable employment", Ricardo writes, "that prevents the market price of commodities from continuing for any length of time either much above, or much below their natural price".[12]

[7] We shall not here inquire into how the old *effectual demand* gradually yielded ground to that smooth newcomer, *effective demand*, since it is more a matter of the history of the English language than of the history of political economy. As a sign of the change accomplished we may take the fact that, in the index to his classic edition of *The Wealth of Nations*, Edwin Cannan showed no hesitation about writing "Demand, difference between absolute and *effective*".

[8] A. Smith, *The Wealth of Nations*, *op. cit.*, p. 63. For further discussion of "effectual demand", cf. below, § 4.

[9] *Ibid.*, p. 65.

[10] *Ibid.*, p. 64.

[11] *Ibid.*, p. 65.

[12] D. Ricardo, *On the Principles of Political Economy and Taxation*, 3rd edition (1821), in *The Works and Correspondence of David Ricardo*, edited by Piero Sraffa with the collaboration of M. H. Dobb, vol. I, Cambridge, CUP, 1951, p. 91. Ricardo argues that wages change in the same direction as market prices and profits. Cf. *ibid.*, p. 91. But the change in profits and the change in wages are, respectively, the cause and consequence of the outflow and inflow of capital: wages fall below their natural rate in those trades where capital shrinks back and rise above it in those trades towards which capital flows. Such divergences will be corrected thanks to labour mobility, recognised by Marx as an essential prerequisite for any effective competition

One case of divergence of market from natural prices analysed by Ricardo is that of changing fashion leading to an increase in the demand for silks and to a fall in the demand for woollens.[13] From a position of equality with the respective natural prices, the market price of silks increases, while that of woollens decreases. As a result, the ratio of profits to the capital employed rises above the natural or *general* rate ("general and adjusted rate", as Ricardo calls it in this context) in the production of silks and falls below it in the production of woollens. The inflow of capital into the former trade and the outflow of capital from the latter result in the market price of silks falling back and the market price of woollens rising, both as it were yielding to the attraction exerted on them by natural prices (which are assumed to remain unaffected). The "principle" which, as Ricardo puts it, "apportions capital to each trade in the precise amount that is required"[14] is thus the very same principle regulating the gravitation of market to natural prices (and of profits to their general rate). This principle asserts itself through that "competition of capitals" which Marx describes as continually at work to eliminate any "disproportion in the distribution of social labour between the individual spheres of production".[15]

Apart from variations in effective demand, a "diproportion" can be caused by such totally or partly unjustified inflows or outflows of capital as are bound to occur owing to the lack of coordination of investment decisions. In these inflows and outflows of capital Marx descries a manifestation of the "anarchy" of a social division of labour that "brings into contact independent producers of commodities, who acknowledge no authority other than that of competition".[16]. It is precisely because the regulating principle referred to by Riccardo does not operate (as Marx stresses) on an *a priori* basis, i.e. according to a plan, but only *a posteriori*, through the competition of capitals, that the "constant tendency on the part of the various spheres of production towards equilibrium comes into play only as a reaction against the constant upsetting of this equilibrium"[17] and "proportionate production is... always only the result of disproportionate production on the basis of competition".[18]

of capitals and, at the same time, as the outcome of complex economic, social and institutional developments. Cf. K. Marx, *Capital. Critique of Political Economy*, vol. III, Penguin Books, 1981, p. 298. For the reasons set out at the beginning of this paper, we shall henceforth disregard rents.

[13] Cf. *ibid.*, pp. 90-1.

[14] *Ibid.*, p. 90.

[15] K. Marx, *Theories of Surplus-Value*, Part. II, London, Lawrence & Wishart, 1969, p. 521.

[16] K. Marx, *Capital. A Critique of Political Economy*, vol. I, Penguin Books, 1976, p. 477.

[17] *Ibid.*. pp. 476-7.

[18] K. Marx, *Theories*, Part II. *op. cit.*, p. 521.

2. Accidental variations in effective demand and in the quantities brought to market

It is tempting to draw a parallel between the case we have been examining of a change in fashion and those "accidental variations in the demand" mentioned by Adam Smith,[19] who illustrates them with the example of a public mourning leading to a rise in the price of black cloth.[20] There is, however, an evident difference between the two cases. Accidental variations in effective demand are by their very nature *transitory* (after a variation of this type effective demand tends to return spontaneously to its original level: as happens in Smith's example when the period of mournig comes to an end. On the contrary, a change in fashion gives rise to a *permanent* variation in effective demand and in the quantities brought to market (in this case effective demand does *not* tend to return spontaneously to its original level).

If we now sharpen our focus on the consequences of a public mourning, we shall see that these differ according to the length of the mourning period. If this period is so short in comparison with the length of the production processes of black cloth that it fails to justify an inflow of capital, then the whole matter boils down to good business for those who have a good stock of the product. If, however, the period is longer (as Smith seems to assume),[21] we can indeed expect an inflow of capital to occur, but it will remain a *transitory* inflow, bound (unless new factors arise) to be followed by an outflow. Investors may either approach this as a temporary employment of their capital or prepare to conquer space from their competitors in a market that will presumably return to its original size.

(The exceptional nature of the event Smith refers to is potentially deceptive. Actually, accidental variations in effective demand are continually occurring. Of these, the variations that may arise from the change in market prices are worth mentioning: consider the increase in effective demand for one commodity (e.g. potatoes) caused by the rising price of another (e.g. corn), or the influence changing market prices exert on the effective demand for the various commodities by penalising some producers and benefiting others.)

Netted of its accidental variations, effective demand may be termed "ordinary demand", in accordance with Ricardo,[22] or, in accordance with

[19] A. Smith, *The Wealth of Nations*, *op. cit.*, p. 129.

[20] Cf. *ibid.*, p. 67 and p. 129.

[21] The public mourning discussed by Smith "sinks the price of coloured silks and clothes... It sinks too the wages of the the workmen employed in preparing such commodities, for which all demand is stopped *for six months, perhaps for a twelvemonth*". A Smith, *The Wealth of Nations*, *op. cit.*, p. 67, italics added.

[22] Cf. D. Ricardo, *On Protection to Agriculture*, in *Works*, *op. cit.*, vol. IV, pp. 219-220.

Marshall, "normal demand"[23] (not, however, as is the case in Marshallian theory, to be taken as a demand *curve*).[24] Among the causes of variation in normal demand — i.e. *permanent* variation in effective demand — Marshall lists by way of example: "the commodity's coming more into fashion", "the opening out of a new use for it or of new markets for it", "the permanent falling off in the supply of some commodity for which it can be used as a substitute" and "a permanent increase in the wealth and general purchasing power of the community".[25] Two additional causes which it is impossible to leave unmentioned are a permanent change in the methods of production (which affects the normal demand for means of production), and a permanent change in income distribution (which affects the normal

[23] Cf. A. MARSHALL, *Principles of Economics*, 8th edition (1920), London, Macmillan, 1964, pp. 383 ff. While the writing of the present work was still under way, the need to forge an explicit distinction between "*actual effective demand*" and "*normal effective demand*" (as prompted by Smith's example of a public mourning) was invoked quite independently by R. Ciccone in a workshop report (*Workshop on Convergence to Long-Period Positions*, Certosa di Pontignano, Siena, 5-7 April 1990).

[24] The temptation here is to suggest that Ricardo's analysis of the change in the normal demand for silks and woollens concerns a shift in the relevant demand curves, but there are no real grounds for such a statement. In fact, the surplus approach to value and distribution adopted by Smith, Ricardo and Marx (and revived in our times by Piero Sraffa) contemplates neither demand curves nor, consequently, discussion of the shifts they might undergo. This does not, of course, imply that these authors depict those who are willing to pay the natural price of a commodity as being indifferent to this price being higher or lower. Rather, it implies that they neither find it possible to establish a *general clear-cut relationship* between the natural price of a commodity and its normal demand, nor acknowledge any need to do so.

As P. Garegnani aptly remarked, the neo-classical school bases its demand curves not only on certain formal properties of consumer tastes (such as the principle of diminishing marginal utility), but also on the full employment of the "factors of production" resulting from the supply-and-demand determination of the reward and of the quantity employed of each "factor". Cf. P. Garegnani, "Su alcune questioni controverse circa la critica della teoria della distribuzione dominante e lo sviluppo di una teoria alternativa", *Quaderni di storia dell'economia politica*, n. 3, 1984, p. 79 and p. 95, notes 6 and 9. As individual incomes are assumed as given at the level corresponding to equilibrium rewards and quantities, it follows from the assumptions on consumer tastes that a greater quantity of commodity "a" and a lesser quantity of commodity "b" (or vice-versa) will be in demand only when the price of commodity "a" falls (or, respectively, rises) relative to the price of commodity "b" (provided these are the only two commodities produced). This outline account of the procedure followed by the neo-classical school in the construction of demand curves for individual commodities suffices to show that this procedure cannot be transplanted into the surplus approach to value and distribution, where no such notions can be found as supply and demand curves for "factors of production», and therefore no "equilibrium" entailing the full employment of the "factors". Thus, within this approach no difficulty is encountered in the way of envisaging a situation where a greater quantity of one of the two commodities can be absorbed by the market although its price does not fall relative to the price of the other (and where a greater quantity of one of the two commodities can be produced without any attendant drop in production for the other).

(The point we have dealt with in this note, i.e. the impossibility of establishing a relationship of a general nature between the natural price of a commodity and its normal demand, must in no way be confused with the point we shall make in § 3 as to the impossibility of enouncing general rules on the degree to which market prices may diverge from natural prices).

[25] A. MARSHALL, *Principles*, *op. cit.*, p. 383.

demand for consumer goods and indirectly the normal demand for means of production).[26]

The quantities of commodities brought to market are also subject to accidental variations. As Smith points out, the importance of these variations is not the same in the case of manufactured as in that of agricultural products: "The same number of labourers in husbandry will, in different years, produce very different quantities of corn, wine, oil, hops &c. But the same number of spinners and weavers will every year produce the same or very nearly the same quantity of linen or woollen cloth... That the price of linen or woollen cloth is liable neither to such frequent nor to such great variations as the price of corn, every man's experience will inform him. The price of one species of commodities varies only with the variations in the demand: That of the other varies not only with the variations in the demand, but with the much greater and more frequent variations in the quantity of what is brought to market in order to supply that demand".[27] Obviously, a scanty or abundant harvest does not in itself justify even a transitory inflow or outflow of capital. This also applies to such other factors as labour conflicts or temporary difficulties in the supply of raw materials that can interfere with production plans (which, given our assumptions on capital, coincide with investment plans). Netted of its accidental variations, the quantity brought to market may be termed "normal supply"[28] or "normal quantity".[29]

In the case of agriculture, Smith goes on to remark, "only the average produce... can be suited in any respect to the effectual demand; and as its actual produce is frequently much greater and frequently much less than its average produce, the quantities of the commodities brought to market will sometimes exceed a good deal, and sometimes fall short a good deal, of the effectual demand".[30] Elsewhere Smith observes that, in principle, something of the sort applies to all productive activities: "In all commodities which are produced by human industry, the quantity of industry annually employed is necessarily regulated by the annual demand, in such a manner that the *average annual produce* may, as nearly as possible, be equal to the *average annual consuption*".[31] The concepts of average quantity ("average annual produce") and average effective demand ("average annual consumption") encountered in this passage come close to the concepts,

[26] A further cause of variation in the normal demand of a commodity is a variation in its natural price. Once we have abandoned the neo-classical demand curves and, with them, the distinction between shifts of the curves and movements along them, a variation in the natural price is automatically placed on the same plane as the causes mentioned in the text.

[27] A. SMITH, *The Wealth of Nations*, *op. cit.*, p. 66. Cf. also p. 129.

[28] Cf. A. MARSHALL, *Principles*, *op. cit.*, pp. 383 ff.

[29] Cf. P. GAREGNANI, "The Classical Theory of Wages and the Role of Demand Schedules" in the Determination of Relative Prices", *American Economic Review*, LXXIII, May 1981, p. 309.

[30] *Ibid.*, p. 66.

[31] *Ibid.*, p. 129; italics added.

respectively, of normal quantity and normal demand (but do not amount to precisely the same thing: cf. § 5).

A second category of causes of accidental variation in the quantities brought to market — not concerning the way production plans are carried out, but rather the way they are actually drawn up — may be discerned (although Smith makes no mention of it) in the totally or partially unjustified inflows or outflows of capital (cf. § 1), which will generally be followed by flows in the opposite direction.

When accidental variations in effective demand and in the quantities brought to market are taken into account, the description of market prices gravitating towards natural prices sketched out in § 1 (on the model of the beginning of the seventh chapter of the first book of *The Wealth of Nations*) can be retained as an approximation only. It follows, in fact, from what has been said in the present paragraph that divergences of market from natural prices tend to be eliminated, not in one way only, but in three different ways, i.e.: *a*) *through the spontaneous disappearance of their cause*, when the latter consists in too short-lived an accidental variation in effective demand to justify (or, anyway, provoke) inflows or outflows of capital, or alternatively in an accidental variation in the quantities brought to market resulting from a scanty or abundant harvest or from other events affecting the carrying out of production plans; *b*) *through transitory inflows or outflows of capital*, preceding the spontaneous disappearance of the cause of a divergence when this cause consists in a sufficiently lasting accidental variation in effective demand; *c*) *through permanent inflows or outflows of capital*, when a divergence derives from a variation in normal demand (in this case it is the *normal quantity* itself that rises or falls to adjust to normal demand), or from a variation in the quantity brought to market resulting from a totally or partially unjustified inflow or outflow of capital, or alternatively from the disappearance of an accidental variation in effective demand which has caused an inflow or outflow of capital.

If on the one hand the latter movement of capital tends to bring the market price nearer to the natural price (cf. above, point b), on the other hand it tends to take the quantity brought to market away from normal demand (this is why a new divergence of market from natural price may occur once the cause of the accidental variation in effective demand has disappeared). Moreover, it should not be forgotten that normal demand, too, can vary in one direction or the other. Suppose, for example, that normal demand rises at the very same time as an accidental fall in effective demand drives the market price below the natural price (assuming they previously coincided). If the accidental fall in effective demand lasts long enough (or, even mistakenly, is expected to), then the "disproportion" produced by the increase in normal demand tends *not* to be eliminated by an inflow of capital, but to be aggravated by an outflow. However, the *permanent* attraction exerted on the quantities brought to market by normal demand is bound to triumph sooner or later over the *transitory* obstacle encountered in the accidental variation of effective demand.

3. The theory of natural prices as the only, albeit imperfect, way to account for market prices

How far below the natural price the market price may be driven by a given excess of the quantity brought to market over the effective demand — and *how far above* it may be driven by a given excess of the latter over the former — is something that theory does not tell us and, as Ricardo points out, *cannot* tell us. "Some, indeed", he writes, "have attempted to estimate the fall of price which would take place, under the supposition of the surplus bearing different proportions to the average quantity. Such calculations, however, must be very deceptious, as no general rule can be laid down for the variations of price in proportion to quantity".[32]

Much, Ricardo warns us, will depend on a factor so resistant to general rules as "the opinions formed on the probability of the future supply being adequate or otherwise to the future demand",[33] and thus on the probability that the divergence of market from naturale price be eliminated within a certain period of time. For example, when corn is "hurried prematurely to market by the distress of the farmers",[34] there will be no need for a considerable fall in the market price to "awaken the spirit of speculation",[35] namely, to induce the intermediaries to start accumulating stocks ("we should soon witness a more than usual activity among the corn-dealers")[36] in expectation of the time when the producers' barns are empty and the market price once again rises. If, however, "the cause of the low price of corn be owing to an abundant quantity in the country", it will be necessary to "go through the ordeal of low prices, and increased consumption, which is always in a degree consequent on low price, before the supply will adjusts itself to the demand and prices become again remunerative".[37].

[32] D. Ricardo, *On Protection to Agriculture, op. cit.*, p. 220. I am indebted to M. Cristina Marcuzzo for bringing this passage to my attention.

In order to understand Ricardo's reference to "average quantity" (rather than "ordinary demand", which he mentions on the same page), we should bear in mind Smith's observation cited above (§ 2) where the divergence of market prices of agricultural products from their natural prices is associated with the divergence of annual production from its average level, the latter being described as the only magnitude capable of being "suited in any respect to the effectual demand". Here Ricardo is in fact dealing with an agricultural product, namely corn. (Cf. also the reference to "average supply" and "average demand" in the passage quoted at the beginning of note 64).

[33] *Ibid.*, p. 220.

[34] *Ibid.*, p. 253.

[35] *Ibid.*, p. 254.

[36] *Ibid.*, p. 254.

[37] *Ibid.*, p. 253-4.

As for Smith, he makes the point that "the market price will sink more or less below the natural price, according as the greatness of the excess increases more or less the competition of the sellers, or according as it happens to be more or less important to them to get immediately rid of the commodity".[38] One reason for selling out at any price is obviously the perishability of the product, and it is precisely this reason that Smith considers.[39] But it is not the only reason: as Marx points out, "a person may *sell* in order to *pay*...these forced sales play a very significant role in the crises".[40] Thanks to these sales an initial drop in prices due to over-production may gather momentum and turn into ruinous plummeting. Interestingly enough, the "forced sales" considered by Marx and those considered by Ricardo (corn "hurried prematurely to market by the distress of the farmers") lead to completely different results on account of differences in the circumstances giving rise to them and the sequences of events they belong to. In short, market prices show very different patterns of behaviour from case to case, and it will certainly not suffice to invoke the size of the surplus or of the deficiency of the quantity brought to market relative to the effective demand in order to account for the degree of divergence of market from natural price.

The only "general rules" market prices obey in fact concern *a)* the *direction* in which they diverge from natural prices and *b)* the tendency of this divergence to be eliminated (in the ways indicated in § 2[41]). Thus, *all that theory can do* to account for market prices — i.e. the objectively observable prices — is to account for the natural prices which represent their centres of gravitation. This amounts to accounting for the *basic trend* in market prices, if so we may call *that component of their trend that does not tend to correct itself in the course of time.* The unwillingness (and inability) of theory to deal with market prices as such is signalled by Ricardo with extreme clarity: "Having fully acknowledged the *temporary effects* wich, in particular employments of capital, may be produced on the prices of commodities... by accidental causes, without influencing the general price of commodities,... we will leave them entirely out of our consideration, whilst we are treating of the laws which regulate natural prices,... *effects totally independent of these accidental cause.* In speaking then of the exchangeable value of commodities, or the power of purchasing possessed by any one commodity, I mean always that power which it would possess, if not disturbed by any temporary or accidental cause, and which is its natural price".[42]

[38] A. Smith, *The Wealth of Nations, op. cit.*, p. 64.

[39] Cf. *ibid.*, p. 64.

[40] K. Marx, *Theories of Surplus-Value*, Part II, *op. cit.*, p. 503.

[41] On the question of what Smith and Ricardo hold it *possible and sufficient* to know about prices and quantities, cf. also P. Garegnani, "The Classical Theory of Wages", *op. cit.*, p. 309 and P. Garegnani, "Su alcune questioni controverse", *op. cit.*, pp. 77-8.

[42] D. Ricardo, *Principles, op. cit.*, pp. 91-2.

4. THE NATURAL PRICE AS THE PRICE NECESSARY TO BRING THE COMMODITY REGULARLY TO MARKET

Although it "is not always the lowest [price] at which a dealer may sometimes sell his goods", the natural price is, Adam Smith says, "the lowest at which he is likely to sell them for any considerable time".[43] In fact, unless the freedom to abandon a trade is limited by laws, regulations, or religious principles,[44] a commodity will not continue to be brought to market for very long if the price at which it can be sold does not cover the payment of rents, wages and profits at their natural rates.[45]

Thus Malthus has good reason to state that rather than "natural price", it is preferable to say "necessary price"[46] (an expression of physiocratic derivation[47] occasionally also used by Ricardo[48] and subsequently taken up by J. S. Mill[49]), since the price in question represents "the *necessary condition of the supply* of the objects wanted",[50] or "the price necessary, in the actual circumstances of the society, to bring the commodity regularly to market".[51] This is the same concept that Marx intends to convey with

[43] A. SMITH, *The Wealth of Nations*, *op. cit.*, p. 63.

[44] Cf. *ibid.*, p. 70.

[45] "Whatever part [of the price] was paid below the natural rate", Smith observes, "the persons whose interest it affected would immediately feel the loss, and would immediately withdraw either so much land, or so much labour, or so much stock from being employed about... [the commodity in question], that the quantity brought to market would soon be no more than sufficient to supply the effectual demand". *Ibid.*, p. 70. Rates higher than the natural ones may not have such sure and rapid effect in attracting land, labour and capital on account of various types of obstacles: manufacturing secrets, the remoteness of markets and the consequent lack of information, monopolies, etc. Cf. *ibid.*, pp. 65-6.

[46] "I should be rather more disposed to call it the necessary price, because the term necessary better expresses a reference to the conditions of supply, and is, on that account, susceptible of a more simple definition". T. R. MALTHUS, *Principles of Political Economy Considered with a View to their Practical Application*, in D. RICARDO, *Works*, *op. cit.*, vol. II, p. 53. This passage does not appear in the second edition of the work.

[47] Cf. [P. P. MERCIER DE LA RIVIÈRE], *L'ordre naturel et essentiel des sociétés politiques*, A Londres chez Jean Nourse, libraire & se trouve à Paris chez Desaint, libraire, rue du Foint Saint Jacques, 1767, tome second, pp. 375 ss. Some considerable time before, another French author, Boisguillebert, had written of a "*prix de rigueur*", which "guarantees the merchant against loss, so that he can continue his business profitably". P. DE BOISGUILLEBERT, *Dissertation sur la nature des richesses, de l'argent et des tributs*, in E. Daire (ed.), *Economistes financiers du XVIII siècle*, Paris, Guillaumin, 1843, p. 404.

[48] Cf. D. RICARDO, *Principles*, *op. cit.*, pp. 120, 302 and 415. "By natural price I do not mean the usual price — Ricardo observes — but such a price which is *necessary to supply constantly a given demand*. D. RICARDO, *Notes on Malthus's Principles of Political Economy*, in *Works*, *op. cit.*, vol. II, p. 227.

[49] "The cost of production, together with the ordinary profit, may therefore be called the *necessary* price, or value, of all things made by labour and capital. Nobody willingly produces in the prospect of loss. Whoever does so, does it under a miscalculation, which he corrects as fast as he is able". J. S. MILL, *Principles of Political Economy with Some of their Applications to Social Philosophy*, London, Longmans, 1929, p. 451.

[50] T. R. MALTHUS, *Principles*, *op. cit.*, p. 49; italics added: cf. also p. 54.

[51] T. R. MALTHUS, *Principles*, *op. cit.*, p. 53. Words also expunged from the second edition of the *Principles*.

the expression "price of production":[52] "What we call price of production is in fact the same thing that Adam Smith calls 'natural price', Ricardo 'price of production' or 'cost of production',[53] the Physiocrats *'prix nécessaire'* ... We call it the price of production because in the long term it is the *necessary condition of supply*, the condition for the reproduction of commodities, in each particular sphere of production".[54]

Let us now turn our attention to the concept of "effective demand". Those who are willing to pay the natural price of a commodity, Smith says, "may be called the effectual demanders, and their demand the effectual demand; since it may be sufficient to effectuate the bringing of the commodity to market. It is different from the absolute demand. A very poor man may be said in some sense to have a demand for a coach and six; he might like to have it; but his demand is not an effectual demand, as the commodity can never be brought to market in order to satisfy it".[55] The difference between the demand of those who are willing to pay the natural price of a commodity and that of the poor man dreaming of a coach and six is thus represented by the *effectiveness* of the former in bringing the commodity (regularly) to market.

What, however, gives the natural price a unique position in the realm of prices is not the property of conferring effectiveness on the demand of those who are willing to pay it — a property the natural price shares with any price higher than itself — but the fact of being *just sufficient* (another way of saying *necessary*) to produce this effect. As Marx puts it, the natural price is "the *sufficient price, below* which in the long run the product could not fall, if it were to be produced and brought to market".[56]

This definition recalls that of "normal supply price" proposed by Marshall: that price "the expectation of which is sufficient and only just sufficient to make it worth while for people to set themselves to produce that aggregate amount".[57]

[52] On the various expressions used by Marx to denote the natural price, cf. below, note 61.

[53] On the evidence of the Index of Ricardo's *Works*, the expression "price of production" is only used by Ricardo in two letters to Malthus in 1814 (cf. vol. VI, pp. 146 and 148), that Marx can hardly have been acquainted with. One can conjecture that Marx might have encountered that expression in the first or second edition of Torrens's *Essay on the External Corn Trade*, plublished in 1815 and 1820 respectively (the disappearance of the expression in transition from the second to the third edition, published in 1826, was noted in G. De Vivo, *Ricardo and His Critics: A Study of Classical Theories of Value and Distribution*, Università degli Studi di Modena, Studi e Ricerche dell'Istituto Economico, n. 23, 1984, pp. 95-6, note 19).

[54] K. Marx, *Capital*, vol. III, *op. cit.*, p. 300; italics added. A reference to Malthus inserted by Marx at the end of the passage quoted suggests that the expression "necessary condition of supply" (*Bedingung der Zufuhr*) may have been taken from Malthus's *Principles*, where we have already encountered it: cf. shortly above in the text. The editors of the *Marx-Engels Werke* conveniently complete the reference to Malthus with the relevant page reference. Cf. K. Marx, F. Engels, *Werke*, Band 25, Berlin, Dietz Verlag, 1964, p. 208, note 33 and p. 933, note 32.

[55] A. Smith, *The Wealth of Nations*, *op. cit.*, p. 63.

[56] K. Marx, *Theories of Surplus-Value*, Part II, *op. cit.*, p. 353. Cf. also A. Smith, *The Wealth of Nations*, *op. cit.*, p. 163, referred to by Marx.

[57] A. Marshall, *Principles*, *op. cit.*, p. 310. For the association of Marshall's "normal long-

One aspect of the latter definition worth considering is the fact that it brings into focus that the price on the basis of which it is judged whether the commodity is or is not worth producing is not the current price, but the expected price. Appearances would indeed suggest that Smith, Ricardo and Marx do not see it this way, since they point to the divergence between *current* market price and natural price as the factor capable of determining an inflow or outflow of capital. However, as we saw in § 2, Smith does not consider investors so short-sighted as to increase the corn-growing area every time a bad harvest raises the market price of this commodity above its natural price (nor, if our interpretation is correct, as to employ new workers in the production of black cloth when the period of mourning is not long enough to justify it). Thus, what he considers (and the logic of the argument compels us to consider) to be decisive in determining an inflow of capital is not the high market price in itself, but the conviction that investors may (rightly or wrongly) draw from it that the market is prepared to absorb, at the natural, or even at a higher, price, the additional quantity which the new investments will allow to be brought to market.

However, as the investors may also form this conviction on different grounds, the criterion they observe is susceptible of being stated without any reference to market prices, as that of *equipping themselves to bring to market what might (with reasonable confidence) be expected to sell at a price not lower than the natural price.* The latter thus fully deserves the recognition Marx grants it as representing "the guiding light of the merchant or the manufacturer in every undertaking of a lengthy nature".[58]

Let us, in the light of this criterion, return to the sequence of events described by Ricardo in the example of silks and woollens. This sequence (variation in normal demand — divergence of market from natural prices — inflow and outflow of capital — tendential elimination of the divergence) appears to apply to an *unexpected* variation in normal demand. For, if the investors are able to foresee what is about to happen (and have enough confidence in their own predictions), the inflow of capital into the production of silks and its outflow from the production of woollens may occur regardless of any variation in market prices. (However, given the lack of coordination of investment decisions, the inflows and outflows of capital are likely to prove either insufficient or excessive. As a consequence, the price of each type of textile will vary, according to the particular case, either in the same direction as effective demand or in the opposite direction).

In a passage in the *Notes on Malthus* which he subsequently expunged, Ricardo observes that "if capital and population regularly increase", the market price of corn, under the pressure of increasing demand, "may for

run supply prices" with Marx's "prices of production", cf. J. Robinson, *Essays in the Theory of Economic Growth*, London, Macmillan, 1962, p. 8.

[58] K. Marx, *Capital*, vol. I, *op. cit.*, p. 269, note 24.

years exceed its natural price".[59] However, a necessary condition for this to take place is that investors *be continually taken by surprise* as normal demand increases. Once they have become persuaded of the convenience of bringing an increasing quantity of corn to market — as sooner or later must happen, if normal demand follows a regular upward trend — the force of attraction exerted by natural prices, no longer counterbalanced (or overwhelmed) by a force in the opposite direction, will assert itself in the customary way. (Indeed, one can conjecture that something of the sort occurred to Ricardo when he decided to remove the passage).

5. Natural prices and average market prices

According to Marx divergences of market from natural prices "are mutually compensatory, so that over certain longer periods the average market prices are equal to the prices of production"[60] "The manufacturer knows", he states, "that if a long period of time is considered, commodities are sold neither over nor under, but at, their average price".[61] In rather more cautious terms, the idea can already be found in J. S. Mill: "In an average of years, sufficient to enable the oscillations on one side of the central line to be compensated by those on the other", he writes, "the market value agrees with the natural value".[62]

In discussing the above thesis we shall once again turn to Ricardo's example of an (unexpected) increase in the normal demand for silks (disregarding here the attendant decline in the normal demand for woollens). For the entire length of time required for production to adjust to the change in normal demand, the market price of silks will remain above their natural price. The movement of the market price described by Ricardo shows very little resemblance to that of Marshall's "stone hanging by a string" which, when displaced from its equilibrium position, will start swinging about it.[63]

[59] D. Ricardo, *Notes on Malthus*, *op. cit.*, p. 228, note 1.

[60] K. Marx, *Capital*, vol. III, *op. cit.*, p. 478.

[61] K. Marx, *Capital*, vol. I, *op. cit.*, p. 269, note 24. Note that here (but cf. also *ibid.*, p. 329, note 9) natural prices are directly referred to as "average prices". This also occurs occasionally in the manuscript of *Theories on Surplus-Value* — drawn up before vol. I of *Capital* — where three expressions are treated as equivalent: i.e. "average price", "cost-price" — the commonly used expression which recalls Ricardo's "cost of production" (cf. below, note 66) — and "price of production", which appears only occasionally (as, indeed, does "average price"). In the text of *Theories* published by K. Kautsky between 1905 and 1910, the expression "cost-price" was systematically corrected to "price of production" so as to accord with the terminology used by Marx in the manuscripts from which Engels had in the meantime drawn vol. III of *Capital*. (In vol. III the expression "cost-price" appears with a different meaning: here it stands for the costs *borne by the capitalist-entrepreneur*, thus excluding profit). The expression "average price" was, however, retained. The original terminology was re-established in the text of *Theories* published between 1956 and 1962 as vols. XXVI-XXVIII of *Marx-Engels Werke*.

[62] J. S. Mill, *Principles*, *op. cit.*, p. 453.

[63] Cf. A. Marshall, *Principles*, *op. cit.*, p. 288. The equilibrium quantities and prices

If anything, the movement is closer to that of a stone tossed in the air and falling back to the ground. Unless, of course, woollens were unexpectedly to come back into fashion, giving rise to a mirror-image trajectory in market prices.

A rather more plausible scenario is that of the inflow of capital gathering too much momentum, with the result that the previously inadequate production becomes excessive, and the market price falls below the natural price.[64] However, no repercussion of this sort must necessarily occur, and if it does there is no reason to assume that the market price will fall sufficiently (but not excessively) below the natural price and remain there long enough (but not too long) for the divergences in opposite directions to compensate approximately for each other.

Ricardo assumes that once the normal demand for silks has increased, it will settle at the new level, thus allowing enough time for the inflow of capital to eliminate the "disproportion" and, with it, the divergence of market from natural price. However, an unexpected succession of increases in the normal demand may possibly surpass the inflow of capital for a certain period of time, thus preventing the market price from falling. (This is, it will be remembered, what Ricardo thought, at least in passing, could happen in the case of an increase in the normal demand for corn due to the accumulation of capital — although, as we pointed out, it is hard to conceive of such an increase as being systematically unexpected; cf. above, § 4).

Acknowledgement of this possibility not only entails a further weakening of the thesis of mutually compensating divergences, but also comes into

envisaged by the neo-classical theory are described by Marshall as "the centres about which the amount and the price tend to oscillate" (*ibid.*, p. 289) "as a pendulum oscillates about its lowest point" (*ibid.*, p. 287). "The actual value at any time, the market value as it is often called", he writes, "is often more influenced by passing events and by causes whose action is fitful and short lived, than by those which work persistently. But in long periods *these fitful and irregular causes in large measure efface one another's influence*; so that in the long run persistent causes dominate value". *Ibid.*, p. 291, italics added.

[64] "Agriculture, like all other trades, and particularly in a commercial country", Ricardo observes, "is subject to a reaction, which, in an opposite direction, succeeds the action of a strong stimulus. Thus, when war interrupts the importation of corn, its consequent high price attracts capital to the land, from the large profits which such an employment of it affords; this will probably cause more capital to be employed, and more raw produce to be brought to market than the demands of the country require. In such case, the price of corn will fall from the effects of a glut, and much agricultural distress will be produced, till the average supply is brought to a level with the average demand". D. Ricardo, *Principles*, *op. cit.*, p. 272. Marx adopts a similar position: "What will be the consequence of the rising price of a commodity? A mass of capital will be thrown into that flourishing branch of industry and this influx of capital into the domain of the favoured industry will continue until it yields the ordinary profits or, rather, until the price of its products, through overproduction, sinks below the cost of production... *for the current price of a commodity is always either above or below its cost of production.* K. Marx, *Wage Labour and Capital*, Moscow, Progress Publishers, 1967, pp. 24-5. (In this work, which came almost twenty years before publication of vol. I of *Capital*, Marx uses the term "cost of production" in its Ricardian sense; cf. below, note 66).

conflict with Ricardo's statement that the competition of capitals must of necessity prevent the market price of commodities "from continuing for any length of time either much above, or much below their natural price" (cf. above, § 1). This does not, however, in the least undermine the conception of the natural prices as the centres of gravitation of market prices. For this conception to hold it does not, in fact, matter whether the divergences are eliminated over a certain length of time (nor is it necessary for divergences in one direction to be accompanied by roughly equivalent divergences in the opposite direction), but only that all divergences whatsoever should be imputable to forces capable of countering successfully, but not annihilating the force of attraction of natural prices; so that it could be said that in the absence of these countering forces, the force of attraction of natural prices would fully manifest its effects.

The idea that periods of relative abundance and relative scarcity of a product tend to balance out, approximately at least, in terms of degree, duration and frequency probably owes its origin to observation of the random alternation of good and bad harvests. As we saw in § 2, it is precisely this observation that leads Smith to state that average production alone adjusts to effective demand in the case of agricultural produce.

Mill and Marx, too, seem to focus on accidental variations in the quantities brought to market (including those deriving from totally or partly unjustified inflows or outflows of capital), while glossing over variations in effective demand. Now, there are no good, *a priori*, reasons to hold that, among the accidental variations in the quantities brought to market, those driving the market price in one direction should prevail systematically over those driving it in the opposite direction (the same is true of the accidental variations in effective demand). And it is precisely on these grounds that the two authors arrive at the conclusion that approximate compensation for divergences of market from natural prices will inevitably be observed, on the one condition that a sufficiently long observation period is allowed for. In order to assess the strength of this argument, we too shall disregard unexpected variations in normal demand (to which, as we have seen, the argument does not apply).

As a preliminary to such an assessment, we observe that, in order to rely on full compensation of divergences, one needs to suppose that natural prices remain indefinitly constant. ("In a stationary state alone", Marshall warns us, "'average price' and 'normal price' are convertible terms".[65])

[65] A. Marshall, *Principles, op. cit.*, p. 309. In his examination of the factors that make quantity-and-price fluctuations rather less regular than is suggested by the image of the "stone hanging by a string", Marshall draws a distinction between accidental variations in the quantities produced, which subject the stone to continual thrusts in opposite directions (as "if the string were supposed to hang in the troubled waters of a mill-race, whose stream was at one time allowed to flow freely, and at another partly cut off"; *ibid.*, p. 288), and shifts in the demand and supply curves, which modify the position about which the stone swings (as "if the person holding the

Although it does not require such an extreme hypothesis, the argument under scrutiny does presuppose a restriction on the variation of natural prices: i. e. that the period separating two successive variations in the natural price of a commodity should be no shorter than the period required for approximate compensation between the divergences to have a reasonable chance of occurring. However, not even this looser hypothesis appears to be well-founded. In fact, natural prices vary with a frequency determined by such factors as the speed of technical change, on which very little can be said at the level of abstraction inherent in the theory of natural prices.

Having touched upon technical change, it is worth pointing out here that this factor, too, can represent a cause of divergence of market from natural price, to be added to those so far dealt with. A certain length of time must usually pass before the competition of capitals (i. e. capital flowing in to be employed in accordance with the new method of production) can exert its full effect on the market price.[66] As a result, during a period of intense technical change in the production of a commodity, its market price can indeed be expected to fall (provided that no other factors arise to complicate the situation) in accordance with the natural price, but remaining on average above it.

If it were true that natural prices possess the dual nature of *centres of gravitation* of market prices and of their *mean* (if only approximate) the theory of natural prices would acquire considerably greater precision in accounting for market prices. But, enticing as the mirage of a closer relation between market prices and natural prices may appear, we are forced by the above considerations to reject the thesis of reciprocal compensation of the divergences, and to satisfy ourselves with the looser relation established in § 3 (which represents a fully sufficient ground for the theory of natural prices).

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string swings his hand with movements partly rhytmical, partly arbitrary"; *ibid.*, p. 288). It is precisely in the movements of the hand (i.e. in the shifts of the curves) that he descries an impediment to identification of average price with normal price, holding such identification acceptable only in the context of a stationary state (where the hand holds steady as the current keeps the stone swinging now in one direction, now in another — but not, presumably, in one of the two directions more than the other).

[66] During this period those who have adopted the new method of production will realise extraordinary profits. "Whilst the use of the machine is confined to one, or a very few manufacturers", Ricardo observes, "they may obtain unusual profits because they are enabled to sell their commodities at a price much above the cost of production — but as soon as the machine becomes general to the whole trade, the price of the commodities will sink to the actual cost of production, leaving only the usual and ordinary profits". D. Ricardo, *An Essay on the Influence of a Low Price of Corn on the Profits of Stock*, in *Works*, *op. cit.*, vol. IV, p. 25. The passage reveals in all clarity that what Ricardo calls the "cost of production" is nothing but the natural price.