

ON THE NOTION OF PERMANENT AND TEMPORARY CAUSES: THE LEGACY OF RICARDO

BY

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This paper considers the distinction made by David Ricardo between “permanent” and “temporary” causes, which he sometimes refers to also as “stable” and “accidental” causes (see The Works and Correspondence of David Ricardo [hereinafter Works] I: 86, 88, 92; VI: 154), to derive implications useful to distinguish his approach from subsequent developments of the notions of short-period and long-period equilibrium. In particular, I trace the change of focus in the concept of “permanent” forces brought about by Alfred Marshall—from whose insights Alfred Kahn and John Maynard Keynes drew inspiration for their short-period analysis—which paved the way to fundamental changes in the method and theory.

It is argued that Ricardo’s distinction maintains an heuristic value, in particular vis-à-vis the distinction between short and long period, which is part of the common language in standard economics.

I. “NATURAL” VALUES AND THE “NATURAL” QUANTITY OF MONEY

David Ricardo stated quite clearly what he thought to be characteristic of his own method in a letter to Robert Malthus:

It appears to me that one great cause of our difference in opinion, on the subjects which we have so often discussed, is that you have always in your mind the immediate and temporary effects of particular changes—whereas I put these immediate and temporary effects quite aside, and fix my whole attention on the permanent state of things which will result from them. Perhaps you estimate these temporary effects too highly, whilst I am too much disposed to undervalue them. To manage the subject quite right they should be carefully distinguished and mentioned, and the due effects ascribed to each. (Ricardo to Malthus, 24 Jan 1817, in *Works* VII, p. 120)

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In fixing his attention “on the permanent state of things,” Ricardo was, in fact, trying to separate permanent from temporary effects by the nature of the causes occasioning them; however, his search for permanent causes has been interpreted as an exclusive concern with full equilibrium or long-run position (i.e., Hutchinson 1978, pp. 45–46; Laidler 1987, p. 291). I take issue with the view that these permanent forces should be identified as those establishing long-period equilibrium; i.e., prevailing at the end of the adjustment process, after a temporal sequence of short-period positions. In this paper,¹ I present an alternative view based on a different interpretation of “permanent” and “temporary” causes whose meaning is found not in the time scale, but in the hierarchy of the forces within the theory.

We can define a “permanent cause” as a sufficient condition for something to happen, regardless of the time interval necessary for its implementation. Permanent causes are sufficient but not necessary conditions, since the same effects could be brought about by other causes that are said to be “temporary”; these latter causes are neither necessary nor sufficient. They are not sufficient because their effects may well be offset by the working of other forces, and they are not necessary because a given effect cannot be unambiguously imputed to them.

When permanent forces prevail, the value assumed by certain variables, such as prices, rate of profit, wages, and the quantity of money, is called by Ricardo their “natural” value. For instance, a change in the conditions of production of a given commodity is a “permanent” cause of a change in its price, which means that the price will certainly change, although not every variation in commodity prices can be imputed to variations in the conditions of production. By contrast, a change in demand is a “temporary” cause of a change in prices, not because its effect does not last long enough, but because it is not brought about by a “permanent” cause. Ricardo wrote: “Having fully acknowledged the temporary effects ... produced on the prices of commodities ... by accidental causes ... we will leave them out of our consideration, whilst we are treating of the laws which regulate natural wages and natural profits, effects totally independent of these accidental causes” (*Works I*, pp. 91–29).²

When discussing natural wages, Ricardo granted that money wages can be pushed downwards when the supply of labor grows faster than demand, but, he said, if there is at the same time a change in the conditions of production of wage goods, making them more difficult to produce, their money prices rise and the overall effect is an increase, not a decrease, in money wages. The former can be taken as an example of a temporary cause, whereas the latter—an increase in the price of wage goods—is a permanent cause of wage increases (see Rosselli 1985). “Suppose corn to rise in price because more labour is necessary to produce it... If, *as is absolutely certain*, wages would rise with the rise of corn ... profits would necessarily fall” (Ricardo, *Works I*, pp. 110–111; italics added).³

¹I draw on Marcuzzo and Rosselli (1994), Marcuzzo (1996), and Marcuzzo (2002), which also deal with several points taken up here.

²See also: “Diminish the cost of production of hats, and their price will ultimately fall to their new natural price, although the demand should be doubled, trebled, or quadrupled” (*Works I*, p. 382).

³See also: “A tax ... on raw produce, and on the necessaries of the labourer, ... would raise wages. Wages would *inevitably and necessarily* rise; and in proportion as they rose, profits would fall” (*Works I*, p. 159; italics added).

Ricardo's definition of the natural quantity of money is given by analogy⁴ with the definition of natural wages and natural prices. In order to see the analogy, first we need to clarify Ricardo's definition of the value of money as the purchasing power of a unit of currency over the standard: "Depreciation as applied to money must be understood to mean relative lowness as compared with the standard, and nothing else" (*Works IX*, p. 276); and "Commodities generally ... can never become a standard to regulate the quantity and value of money" (*Works IV*, p. 61).

The standard is that particular commodity that—in virtue of its own particular characteristics—is chosen to measure the value of money. If, then, gold is chosen as the standard, variations in the money price of gold are the measure of changes in the value of money. An increase in the price of gold (i.e., a change in the purchasing power of the currency over the standard) means a decrease in the value of money (i.e., a depreciation of the currency; conversely, for a decrease in the price of gold). From this premise, Ricardo drew a distinction between a change in money prices and a change in the value of money: by the former, he meant a change in the ratio of the currency (money) to commodities; by the latter, a change in the ratio of the currency to the standard.

If the standard is gold, the price of gold measures the internal value of the currency, while the rate of exchange (the ratio between the official prices of gold at home and abroad, assuming that the other countries have also adopted a gold standard) measures the external value of the currency. Whenever the market price of gold shows no deviation from the official price, and the market rate of exchange (the price of foreign bills of exchange) is close to the par of the exchange, the purchasing power of the currency over gold—therefore, its value—is equalized at home and abroad.

This configuration of the system is attained when the quantity of money is at its "natural" level. This is not a quantity that can be given a numerical value—targeted by the monetary authority—but, rather, is a benchmark signaled by the foreign and domestic value of money, on the evidence of which it can be seen when that level is not attained. When both the market price of gold at home and the market rate of exchange deviate from their official values, provided the internal and external convertibility of the currency are maintained, forces are at work that will restore that level.

Once the price of the standard is fixed in terms of the currency, its quantity will adjust so as to keep the value of money (in terms of the standard) constant. If the price of the standard is not fixed (i.e., the external and/or internal convertibility of the currency into gold are suspended), the quantity of money is no longer self-adjusting and the concept of a "natural" level becomes meaningless. In those cases where the quantity of money did not adjust to its "natural" level, the "uniformity in the value of money" could not be maintained (Ricardo, *Works IV*, p. 69); rather, its "value must be constantly vacillating" (Ricardo, *Works III*, p. 139).

For Ricardo, this was a most undesirable state of affairs:

In the present state of the law [Bank of England's notes were no longer convertible into gold at an official price] they [bank directors] have the power, without any control whatsoever, of increasing or reducing the circulation in any degree they may think proper:

⁴The word "analogy" is used to indicate the similarity, rather than the identity, of the meaning "natural" when applied to a quantity, rather than to a price. It is the idea of a benchmark that market mechanisms tend to establish whenever temporary or accidental causes make prices (or wages) or the quantity of money deviate from it.

a power which should neither be entrusted to the State itself, nor to any body in it; as there can be no security for the uniformity in the value of the currency, when its augmentation or diminution depends solely on the will of the issuers.” (Ricardo, *Works* I, p. 359)

A currency without a standard, according to Ricardo, “would be exposed to all the fluctuations to which the ignorance or the interests of the issuers might subject it” (Ricardo, *Works* IV, p. 59).

With unbounded variations in the price of gold, the rate of exchange and the prices of all commodities were affected. A monetary disturbance was then introduced into the system of prices, altering the market signals that direct capital from one sector to another, disrupting the rules of production and distribution of the social product. However, Ricardo did not see a “real” disturbance as equally distorting. Changes in the *value* of gold—as opposed to changes in its *price*—signaled that gold ceased to be a good standard; a change in the relative value of commodities signaled a change in their conditions of production or the necessary adjustment in the process of capital competition.

Thus, the quantity of money is at its “natural” level whenever the market price of the standard shows no deviation from the official price; that is to say, whenever the purchasing power over the standard is kept constant (*Works* III, pp. 105, 193). If gold is the standard, the quantity of money is kept at its natural level by a market mechanism. An increase in the quantity of money immediately lowers the exchanges, making the purchasing power of the standard in terms of the domestic currency higher abroad than at home, thereby making the export of gold profitable. The ensuing reduction in the quantity of gold brings the quantity of money back to its natural level.

Thus, changes in the quantity of money involving changes in its purchasing power in terms of gold at home and abroad are “temporary,” because market mechanisms will bring the quantity of money to its natural level, thereby restoring the equality of the purchasing power of money at home and abroad. Changes in the quantity of money deriving from a change in the condition of production of gold, on the other hand, are permanent, because they cause a change in its natural level.

Let us take an example to illustrate the point. It is common opinion that Ricardo’s theory represents the position according to which money is neutral; that is, variations in the nominal quantity of money have an effect on nominal variables, but only in the short period on real variables. Thus, Ricardo is seen as the champion of the quantity theory of money and of long-period analysis (O’Brien 1975, p. 164; Humphrey 1990, p. 19; Laidler 1991, *passim*).

Even if the quantity theory is interpreted as the proposition that a necessary and sufficient condition for a change in money price is a proportional increase in the money supply, it is certainly true that Ricardo never thought that any variations in prices necessarily implied a variation in the quantity of money. In other words, whereas the quantity of money always affects prices, variation in the quantity of money is not a necessary condition for a variation in prices. Price increases may just as well be caused by a decrease in the value of the standard, a rise in wages, or tax increases (see *Works* II, p. 412; III, p. 328; IV, p. 321; VI, p. 233). In fact, Ricardo advocated a policy of reduction in the quantity of money only in the case of depreciation measured in terms of gold, and never in the case of an increase in prices, as we would expect if he held the strict quantity theory. He wrote: “The issuers of paper money should regulate their issue solely by the price of bullion, and never by the quantity of their paper in

circulation. The quantity can never be too great or too little, while it preserves the same value as the standard” (*Works IV*: 64).

But, is the change in the quantity of money a sufficient condition for a proportional change in money prices? The answer is no. The only proportionality factor to be found in Ricardo lies between the quantity of money and the price of gold, since any increase in the quantity of money above the natural level brings about an exactly equal decrease in its purchasing power in terms of gold. As a consequence, but only as a consequence of this proportionality, if the relative values of commodities in terms of gold are assumed to remain constant, then the monetary prices of commodities vary in proportion with the quantity of money. But, if the relative values of commodities vary—for instance, because there is a change in the conditions of production—then the proportionality between variations in prices and variations in the quantity of money disappears.

Thus, the non-neutrality of money in the short period conceived by Ricardo cannot be interpreted as a *short-run* effect, as something which is not destined to last. Rather, it should be interpreted as an *uncertain* effect because, in the absence of a theory to deny the validity of Say’s identity, the level of output is given. Alternatively, the non-neutrality of money in the short period should be interpreted as a temporary effect, which is offset by others deriving from a permanent cause. This is why temporary causes cannot be part of the theory: not because their effects are not recognized as part of reality, but because their effects are uncertain and volatile, and can be offset by more certain and permanent ones (Marcuzzo and Rosselli 1994).

In conclusion, the question in Ricardo’s theory is, then, not one of measuring “for how long” or “to what extent” an observed consequence follows from a given cause, before deciding whether it is a temporary or permanent effect. The question is one of deciding which causes can be made the object of a theory; whether, from a given cause, consequences can be derived that are certain. For Ricardo, the distinction between temporary and permanent pertains to the question of which *causes* are eligible to become part of a theory, and not to the question of which *effects* endure or fail to endure. Ricardo takes permanency as a property independent of the length of time during which causes exercise their influence because the definition of a permanent cause is given not by the length of the duration of its effects but by its place in the structure of the theory.⁵

II. “NORMAL” VALUES

Marshall made a change in terminology, revealing in itself of a change in meaning, from “natural” to “normal” values.⁶ He maintained that “it is to the persistence of the

⁵See, for instance: “A commodity can only *permanently* rise in price, either because a greater quantity of capital and labour must be employed to produce it, or because money has fallen in value” (*Works I*, p. 417; italics added); and “It is the cost of production which must *ultimately* regulate the price of commodities, and not, as has been often said, the proportion between the supply and demand” (*Works I*, p. 382; italics added).

⁶As Krishna Bharadwaj (1986, p. 37) remarked: “The shift to supply and demand theories yet retained the significance of ‘long period’ positions as distinct from the ‘short period’; the tendency towards a uniform rate of profit and wage was retained. However, market prices became synonymous with ‘short period’ prices and natural prices with ‘long period’ prices; the main theoretical shift being that both were now represented as values attained in equilibrium through the balancing of symmetrical but opposite forces of supply and demand, only under different conditions.”

influences considered, and the time allowed for them to work out their effect” that we should refer “when contrasting Market and Normal price” (Marshall 1920, p. 289). Moreover, he asserted that “the term normal implies the predominance of certain tendencies which appear likely to be more or less steadfast and persistent in their action over those which are relatively exceptional and intermittent” (Marshall 1920, p. 28).

For instance, producers adapt the level of production to expected demand if, and only if, the expected supply price is sufficient to make it worthwhile to produce that quantity. The price, “the expectation of which is sufficient and only just sufficient” (Marshall 1920, p. 310), to produce that quantity is the “normal” supply price. Given his definition, not surprisingly, Marshall applies the term “normal supply price” *equally* to the short and to the long period, the only difference being that in the long period, “supply means what can be produced by plant, which itself can be remuneratively produced and applied within the given time” (Marshall 1920, p. 315).

As Michel De Vroey (2000, p. 248) put it:

The triggering event to which the firms’ managers must react is a shift in demand. Three possibilities have to be disentangled in this respect: the first possibility is that the shift is accidental. That is, its expected persistence is too short to make it worthwhile to change the amount of variable factors used. The second possibility is that the shift is expected to last long enough for this specific purpose, yet to be too short to make changes in capacities worthwhile. When this is the case, short-period analysis comes into play. Finally, the shift in demand may be expected to be long enough to make an overall change in factors worthwhile. The long-period analysis then becomes relevant.

Marshall’s distinction aims to qualify causes according to the persistence of their effects in time, whereas Ricardo aims to single out causes that can provide a sufficient explanation of given effects. For Marshall, it is the *persistence in time* of a known cause that is the criterion for attributing the term “normal” to the value assumed by a given variable, but, for Ricardo, it is the *certainty of their effects* that leads to identification of those causes that are responsible for “natural” values. Since the purpose of economic analysis is, according to Marshall, to determine the “immediate and ultimate effects of various groups of causes” (Whitaker 1975, p. 97) through close study of the time element, the distinction between short and long period is derived not from the nature of the forces determining observed effects, but from the length of time necessary for the *same* forces to work their effects. As Marshall says:

In each [situation] price is governed by the relations between demand and supply. As regards *market* prices, Supply is taken to mean the stock of the commodity in question which is on hand, or at all events “in sight”. As regards *normal* prices, when the term Normal is taken to relate to *short* periods of a few months or a year, Supply means broadly what can be produced for the price in question, with the existing stock of plant, personal and impersonal, in the given time. As regards *normal* prices when the term *Normal* is to refer to *long* periods of several years, Supply means what can be produced by plant, which itself can be remuneratively produced and applied within the given time; while lastly, there are very gradual or *secular* movements of normal price, caused by the gradual growth of knowledge, of population and of capital, and the changing conditions of demand and supply from one generation to another. (Marshall 1920, pp. 314–315)

Since the forces that govern the economic system are supply and demand, the crucial factor becomes “the period of time which is allowed to the forces of demand and supply to bring themselves into equilibrium with one another” (Marshall 1920, p. 274). See, for instance:

The actual value at any time, the market value as it is often called, 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 those fitful and irregular causes in large measure efface one another's influence so that in the long run persistent causes dominate value completely. (Marshall 1920, p. 291)

Marshall's distinction between short and long period is based on the *nature of the decisions* involved, which reflects what individuals take as given and what they expect in different periods of time.

For short periods people take the stocks of appliances of production as practically fixed; and they are governed by their expectations of demand in considering how actively they shall set themselves to work those appliances. In long periods they set themselves to adjust the flow of these appliances to their expectations of demand for the goods which the appliances help to produce. (Marshall 1920, pp. 310–311).

It is the nature of the *decisions* involved, characterized by the time horizon to which they apply, that sets the boundary between the long and the short period. Accordingly, economic theory can take as constant those factors over which decisions can be postponed and take them as variables only when describing situations in which they are a matter of decision by economic agents.

III. THE ROLE OF BELIEFS AND EXPECTATIONS

From Marshall's definition of short period, Kahn drew a further implication.⁷ He noticed that the possibility of considering machinery and the organization of production as constant from the point of view of the short period arises from the fact that, in both cases, the decision to alter them is the same and depends on whether demand conditions are or are not considered “normal.”⁸ Accordingly, depending upon whether changes in demand are *believed* by entrepreneurs to be transitory or permanent, as compared with the level considered as normal, the decisions to modify the plant or the organization will or will not be taken. Although the short period cannot be “shorter” than the length of the productive process or longer than

⁷Kahn, perhaps more than any other economist, was preoccupied with the precise definition of the short period; he chose it as the title of his fellowship dissertation, “The Economics of the Short Period,” written between October 1928 and December 1929. It was first published in Italian in 1983 and in English only in 1989. In the following two or three years, Kahn presented his thoughts on short-period economics in a book bearing the same title as the dissertation, which, however, remained unfinished and is still unpublished. Of the eleven chapters planned, on the evidence of the contents list, chapters 1, 3, and 4 remained unwritten, and chapter 7 was left unfinished. The extant copy, which was found among Kahn's papers in King's College archives, can be dated to the last quarter of 1932.

⁸Note that the meaning of “normal” is here slightly different from that given to it by Marshall, since to the subjective element—i.e., what is *perceived* as normal—is given more emphasis.

the time necessary to modify productive capacity, the time necessary to modify productive capacity depends not only on technological factors, but also on the prevailing conditions—depression or boom—which mold expectations regarding the return to “normal” conditions of demand. Thus, for Kahn, the nature of the short period is seen not as a conceptual experiment, but as a question of fact: the life of fixed capital is considerably longer than the period of production (Kahn 1932, ch. 2, p. 2; 1989, p. xiii). He wrote:

If there were a complete range of continuous variation in the lives of the different means of production the notion of short period could not be employed. But, in reality as far as the range of variation is concerned between raw materials on the one hand and productive plant, on the other hand, there is a desolate and sparsely populated area. As a general rule, the life of physical capital is illustrated either by the mayfly or by the elephant. (Kahn 1989, p. xiii)

One aspect of the rationale for an “economics of the short period” is, therefore, rooted in the nature of the production process, which gives meaning to a time interval where productive capacity is given and only its utilization varies. In fact, there are changes that occur rapidly (such as output and employment) and others that occur only slowly (such as alterations in fixed plant) (Kahn 1932, ch. 2, p. 6). The other aspect characterizing the short period is rooted in expectations of changes in demand relative to the level perceived as “normal.”

The level of demand that individuals take as “normal” is the benchmark against which observed variations are evaluated and expectations about its future course are formed. The two aspects are combined to explain why, in the short period, productive capacity is not altered. This is so because a change in the conditions of demand is not perceived as permanent. In fact, the “ideal” short period is defined as a situation where “any change that occurs is not expected to be permanent” (Kahn 1932, ch. 2, p. 10). In a depression, however, short-period equilibrium implies expectations that demand will return to its normal level, since suspending production or reducing the productive capacity to zero would be tantamount to acknowledging that demand must remain permanently low. In a boom, by contrast, short-period equilibrium implies that expectations are such that an increase in production is preferred to building up capacity until the increase in demand is perceived as “permanent.”

Since what matters are expectations regarding the normal values of certain variables—in particular, the level of demand—it follows that the short period need *not* be a “short” time interval or only a temporary state before the long period forces work out their effects. It is, rather, a position that is maintained as long as the set of decisions, depending upon the expected values of selected variables, does not change (Dardi 1996). When the demand for an industry’s output alters, according to Kahn, there are changes where responsiveness is immediate and changes where responsiveness is slow, but there is no continuous range of variation between “responsiveness” and “irresponsiveness.” Changes that occur rapidly (output and employment) “do not very much depend on what has occurred in the past or what is expected to occur in the future” (Kahn 1932, ch. 2, p. 12). They are reversible changes as opposed to changes “which by definition have not time to occur in the short period [and which] depend on what has occurred in the past and what is expected to occur in the future” (*ibid.*).

In conclusion, according to Kahn, we have causes that have different effects according to whether they are *perceived* by economic agents as permanent or persistent on the basis of what is believed to be the normal value of a given variable. It is the divergence between the expected and the “normal” values of selected variables that explains why the short period may not be just a temporary situation.

IV. THE SHORT-PERIOD METHOD

In a letter to Keynes, Dennis Robertson referred to “your and Kahn’s s[hort] p[eriod] method” (Keynes 1979, p. 17) to characterize the peculiarity of their approach. It was indeed Keynes who further developed short-period analysis with the more general purpose of accounting for decisions taken under different conditions of knowledge. These different conditions are manifested in what individuals expect in any given situation, and such expectations typically differ from individual to individual. The case in point is illustrated by the theory of liquidity preference, whereby

the individual, who *believes* that future rates of interest will be above the rates assumed by the market, has a reason for keeping actual liquid cash, whilst the individual who differs from the market in the other direction will have a motive for borrowing money for short periods in order to purchase debts of longer term. (Keynes 1973a, p. 170; italics added)

More generally, the role assigned to expectations in *The General Theory* is to account for the possibility of an equilibrium at less than full employment. This equilibrium is not described as a situation characterized by “wrong” expectations, since “the theory of effective demand is substantially the same if we assume that short-period expectations are always fulfilled” (Keynes 1973b, p. 181). Thus, the short period is not a situation where expectations are not fulfilled, but a situation in which expectations generate “a state of things” (Dardi 1994) that conforms to them.

In a departure from Ricardo, Keynes attempted to capture the effects of decisions taken in an “uncertain” environment and provide an explanation not of “permanent causes,” but of “motives, expectations, psychological uncertainties,” which are, by definition, accidental and unstable (Keynes 1973b, p. 300).

For Ricardo, the predictive power of the theory is enhanced by severely limiting its domain, by drawing a distinction:

between field of analysis, where necessary quantitative relations could be found between rates of remuneration, and between these rates and relative prices, and other fields where no such necessary relations could be established, and where actual relations had to be studied in their multiplicity and diversity according to circumstances. (Garegnani 1983, p. 312)

In Keynes—since “the material to which it [economics] is applied is, in too many respects, not homogeneous through time” (Keynes 1973b, p. 296)—it is the search for permanent causes that is severely limited. As he wrote: “The object of a model is to segregate the semi-permanent or relatively constant factors from those which are transitory or fluctuating so as to develop a logical way of thinking about the latter, and of understanding the time sequences to which they give rise in particular cases” (Keynes 1973b, pp. 296–297).

And, as Ian Kregel put it:

[Keynes's theory] ... is not limited to a period of time so short that the capital stock cannot change. Rather it attempts to avoid analysing everything at once by applying a method which identifies a single aspect of the broader whole for analysis. The choice of the problem will then determine which aspects of the system should be given, not in the sense they are thought as unchanging, but that 'the effect or consequences of changes in them' are not taken directly into account. The capital stock is not assumed unchanged *over actual time*; rather any changes in it are left to one side to be considered later. (Kregel 1983, p. 96)

I will not take up here the question of whether the arguments set out by Keynes in the *General Theory* can be extended to the long period, or indeed the reasons why short-period analysis came to predominate in economics, but will now turn to Kahn's and Keynes's definition of short period vis-à-vis Ricardo's and modern usage, respectively.

V. THE NATURE OF THE DISTINCTION BETWEEN THE SHORT AND THE LONG PERIOD

In standard macroeconomics, the long period is usually identified with an "optimal" position towards which the economic system "naturally" tends if the necessary flexibilities are guaranteed. On the contrary, the short period is a temporary position characterized by some rigidities that prevent the system from entering into the optimum state. In standard microeconomics, the short period is a situation in which the productive capacity is given, and it is the level of utilization of this given capacity that is allowed to vary. The long period, on the other hand, is a situation in which also the productive capacity can change to adjust to the level of demand. It has been noted that since the two definitions are not identical, modern usage of the terms is marked by confusion and ambiguity, and strikingly so in the textbooks (Hamouda 1984; Kyer-Maggs 2006; Sanfilippo 2011).

The standard macroeconomics short period is a temporary position of the level of income and employment of resources, which can become permanent if rigidities (prices, wages, interest rate) are not removed, unlike the Kahn–Keynes version, which is characterized by expectations preventing the system from moving on to a different equilibrium, which is not necessarily the long-period equilibrium. While, in standard macroeconomics, the short period–long period distinction aims to separate temporary from permanent configurations, in the Kahn–Keynes definition of the short period, there is no such implication. In Ricardo, the distinction between temporary and permanent effects pertains to the nature of the causes occasioning them, and there is no implication that a temporary effect can become permanent if sufficient time is allowed for the causes to exercise their full force unimpeded.

The questions arising here are two: a) is Ricardo's approach to the short period the same as in standard macroeconomics? and b) can long-run positions be made the object of economic theory, or is, rather, the Kahn–Keynes short-period equilibrium more appropriate to deal with an economic system characterized by uncertainty and fundamental instabilities?

This issue was at the root of the controversy between Joan Robinson and Pierangelo Garegnani in the late 1970s, and it is interesting to take a new look at their arguments at a distance of nearly thirty-five years.

Robinson objected to the method based on comparisons in classical political economy and followed by Piero Sraffa (because “there is no causation and no change” [Robinson 1980b, p. 132]) as showing no substantial difference from the neoclassical equilibrium method in their neglect of time. Timeless analysis implies disregard of uncertainty and expectations, which are the guiding forces of economic behavior, according to Joan Robinson, fully persuaded as she was that the “Keynesian revolution destroyed the basis of [the] concept of long-period equilibrium and put nothing in its place” (Robinson 1980a, p. 130).

Robinson’s argument rests on the distinction between a long-period approach, in which correct foresight regarding output composition and the pattern of prices that maximize profits is the fundamental assumption, and a short-period model, where there is no correct foresight. In the latter case, she wrote: “there are individual expectations which need not be consistent with each other and which may turn out later to have been mistaken.... The consequent interaction of individual decisions is seen in the total composition and prices of the total flow of output and its distribution” (Robinson 1980c, pp. 89–90).

Garegnani contested Joan Robinson’s argument that expectations and uncertainty prevent the attainment of long-period equilibrium, in the first place retorting that the point of normal position method is the *tendency* towards it, and then going on to raise the issue of the incorrectness of expectations, which may be assumed to characterize Ricardo’s theory of accidental causes making market prices deviate from natural prices. Revision of expectations is, in fact, the moving force in the process of tendency to the long-period position. This tendency, Garegnani wrote, was “supposed to be the result of objective experiences, independent of the normal levels of the variables being in the ‘minds of the dealers’ from the beginning” (Garegnani 1989, p. 351).

So the two points of view held respectively by Robinson and Garegnani seem to indicate an incompatibility between Ricardo’s method of analysis and that of Kahn–Keynes, which is at the root of the division between Neo-Ricardians and Post-Keynesians. In the next section, I wish to suggest that there is one aspect that shortens the distance between the two approaches, but not between them and the neoclassical theory.

VI. DIVIDING LINES

The question of whether Ricardo’s method is compatible with acceptance of the Kahn–Keynes short-period equilibrium—which differs from the neoclassical (Marshallian) notion of a temporary situation, the latter differing in turn from Ricardo’s notion of temporary cause—revolves around the role of demand and supply in these approaches.

Ricardo did not deny that these forces were at work in influencing prices; what he denied was that supply-and-demand functions could be employed to derive a precise, quantitative relation between prices and quantity. Garegnani explained quite clearly the difference between classical effectual demand and the neoclassical demand function:

The notion of demand schedule requires that the price-quantity relationship be determinate for all prices in the relevant range, and not only for the 'natural' or 'normal' price, which, however, is the only one that we may expect to experience under the non-accidental conditions that are likely to emerge through a repetition of the situation. We are therefore dealing with a much stricter notion than the immediately plausible one according to which an accidental fall in the quantity supplied below its normal level is likely to be accompanied by a rise in the price, and vice versa: in this notion no attempt would be made to determine the magnitude of such a rise, considered as depending on accidental factors. (Garegnani 1983, p. 309).

Similarly, there is no supply schedule in Ricardo's theory; that is, a well-behaved quantitative relation between price and quantity, derived from average and marginal costs.

So the first dividing line is between Ricardo's permanent positions and the neoclassical full equilibrium. Since supply-and-demand functions have no role to play in the case of Ricardo, the two concepts cannot be taken as identical. The second dividing line is in the meaning attributed to the short period, which Ricardo and neoclassical theory interpret as a temporary situation, while, for Keynes, on the contrary, it is not. Keynes's short-period equilibrium is not, in fact, a temporary situation that will eventually become a long-period equilibrium via flexibility of prices, wages, and interest rate, as it is taken to be in neoclassical theory. If expectations are such that the level of demand is perceived to remain low, no price mechanism is at work to pull the system out of short-period unemployment equilibrium, since the level of income at which the system comes to rest is set only by the level of aggregate demand.

We have seen that Ricardo's temporary situations are defined relative to the nature of the causes occasioning them: in the case of prices, these are the changes in the quantities supplied and demanded; in the case of wages, they are the supply and demand of labor; while, in the case of the natural quantity of money, they consist of deviations in the market price from the official price of gold. These causes will produce temporary, not permanent, effects, like those produced by a change in the cost of production in the case of the price of commodities, the price of necessities in the case of wages, and the value of gold in the case of the natural quantity of money. So the dividing line is not only between the neoclassical theory and Ricardo, who sees different forces are at work in determining short- and long-run equilibria, but also between Ricardo and Keynes, the latter holding that short-run equilibrium can be a permanent situation.

There is, however, an aspect of Ricardo's method of analysis—the importance attributed to the hierarchy of causes in the groundwork of the theory—which is retained by Keynes, who also holds that there are some causes which are more "important" than others. For instance, in Keynes, the level of aggregate demand, whatever the reasons underlying it, is a permanent cause holding the level of income at a level below that of full employment; no flexibility in the rate of interest, prices, or wages will have the same effect as a high level of aggregate demand for the attainment of full equilibrium, as is the case in neoclassical theory.

Ricardo's legacy can thus be seen in the device allowing for the separation of causes by means of which it is possible to separate propositions that have the nature of sufficient conditions, regardless of the time interval necessary for their implementation. This is a case of the effect of the conditions of wage-goods production on profit,

dominating all other circumstantial causes. See, for instance, Ricardo's letter to Malthus, 16 September 1814:

I agree with you that when capital is scanty compared with the means of employing it, from whatever causes arising, profits will be high. *Whether temporary or permanently must of course depend upon whether the cause be temporary or permanent.* It is however very important to ascertain what are cause which make capital scanty compared with the means of employing it,—and how far when ascertained they may be considered temporary or permanent. It is in this enquiry that I am led to believe that the state of the cultivation of land is almost the only great permanent cause. There are other circumstances which are attended with temporary effects of more or less duration, and frequently operate partially on particular trades. The state of production from land compared with the means necessary to make it produce operates on all, and is alone lasting in its effects. (*Works* VI, p. 133; italics added)

A similar methodological stance can be found in Keynes's approach, where an increase in effective demand is a sufficient condition for an increase in employment, while a reduction in money wages is not. He wrote:

The reduction in money-wages will have no *lasting* tendency to increase employment except by virtue of its repercussion either on the propensity to consume for the community as a whole, or on the schedule of marginal efficiencies of capital, or on the rate of interest. There is no method of analysing the effect of a reduction in money-wages, except by following up its possible effects on these three factors. (1973a, p. 262; italics added)

Indeed, Keynes objected to the very idea that the economic system be governed by natural laws, and the 120 years that separate Ricardo's *Principles* (1816) from Keynes's *General Theory* (1936) saw the abandonment of faith in positivism and awareness of the advances in physics that challenged the Newtonian representation of the laws of the universe, and also their applicability to the realm of economic affairs. With his insistence on "motives, expectations, psychological uncertainties," which are, by definition, accidental and unstable, Keynes could hardly have endorsed Ricardo's faith in the similar nature shared by economic and physical laws.

Notwithstanding these profound epistemological differences, Ricardo's quest for a theory in which the hierarchy of causes is detectable in the structure of the arguments was also pursued by Keynes, who shared with Ricardo the recognition of its relevance and usefulness.

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