Review Article

Marshall, the Keynesian Revolution, and Sraffa's Significance

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Abstract: Based upon Geoffrey Harcourt's Palgrave volumes, this review article attempts to picture how, in a Cambridge environment, Keynes's fragmentary monetary theory of production grew organically out of Marshall's equally fragmentary monetary theory of exchange. The dangers associated with Keynes's close links with Marshall are alluded to. Indeed, without taking account of the classical spirit of Sraffa's work, Keynes's monetary theory may quite easily be integrated into the Marshallian-neoclassical framework of analysis. However, theorising, not literally, but in the spirit of Keynes and Sraffa, within a Ricardian-Pasinettian framework of vertical integration, opens the way to a Classical-Keynesian monetary theory of production.

Keynes and Cambridge

In the early eighties I had the opportunity to talk about Keynes and the Keynesian revolution to an elderly Norwegian managerial economist who had almost unbelievable knowledge about the history of economic theory. Is it fair and right, I remarked, that all these important things that have been said and written about the significance of money and credit, effective demand and cumulative processes, initiated by some kind of autonomous expenditures, since mercantilist times should be associated with the name of Keynes only? After all, in more recent times, Swedish, German and other economists, including Marshall, had also done important work on money and associated subjects. Yes, indeed, he replied, a lot has been said about money and its importance, entire libraries have been written about all this, but Keynes was the only one who worked out a
comprehensive and consistent theory, a theory that is also capable of further elaboration and of integration into wider frameworks. Indeed, Keynes worked out a theory of employment within the general framework of a monetary theory of production (Keynes 1933 and 1936) where money is there right from the beginning as is illustrated by the famous Marxian scheme:

\[ M\text{-}C \ldots P \ldots C'\text{-}M' \quad (1) \]

(money and finance $M$ enables entrepreneurs to buy means of production and labour services $C$ which, within the social process of production $P$, are transformed into final goods $C'$ which are sold for money $M'$ whereby $M' > M$ represents the surplus produced within $P$ (Marx, *Das Kapital*, vol. II, p. 31). Keynes's theory of employment, interest and money, dealing with the $C'\text{-}M'$ part in sequence (1), contains neoclassical remnants and is as yet incomplete, but it is capable of being purified, elaborated and complemented as to deal in a so coherent and systematic way with all the great economic problems: value, pricing, distribution, employment, money, foreign trade, the role of the state; and others. This is illustrated by the analytically very rich, largely overlapping, Post Keynesian and Classical-Keynesian systems, erected upon Keynesian, Classical, and also humanist Marxian, Institutionalist and Historical strands of thought, all of which now represent the nucleus of a convincing alternative to neoclassical mainstream economics and which, recently, has been christened *heterodox economics* (Frederic Lee). Hence, contrary claims notwithstanding, Keynes's *General Theory* initiated a revolution in thinking about economic problems. A glance at the table of content of Walras's *Eléments d'Economie Politique Pure* (Walras 1900), the basic model of the liberal or neoclassical school suffices to convince the reader of this. Contrary to Keynes's still partial monetary theory of production, Walras's theory pictures a real exchange economy, indeed a barter economy, with neutral money to facilitate exchanges coming in at later stages. General equilibrium, naturally, implies full employment of resources: '[The Walrasian theory] includes all that is covered by the concept of Income Analysis [and] macroanalytic aspects, for example, as regards the level of employment [our emphasis]. It cannot be too strongly impressed upon the reader that it is not correct to contrast income or macroanalysis of, say, the Keynesian type with the Walrasian microanalysis as if the latter were a theory that neglects, and stands in need of being supplemented by, income and macroanalysis' (Schumpeter 1954, p. 999). Originally, Walras and the Walrasians thought that
equilibrium is brought about by competitive markets, but now neo-Walrasians
like Kirman and Walker argue that the auctioneer is required to bring a general
equilibrium into existence (see 50 Years a Keynesian ..., p. 192). However,
Keynes never thought in terms of Walras, he was thoroughly Marshallian. The
peculiarity of the Marshallian system enabled Keynes to break out of the
neoclassical equilibrium framework to establish a theoretical framework picturing
the scale aspect (C'-M’) of a monetary production economy. We shall come
back to this crucial point which underlies both of Geoffrey Harcourt’s Palgrave
volumes - in the following we shall speak of the theory volume and of the policy
volume respectively.

In the 1930s, the Keynesian revolution was paralleled by the Sraffian revolution
which brought out other features of the monetary theory of production, i.e. the
nature of the social process of production and the theory of value, prices and
distribution associated with this process. As such, the Sraffian revolution is
associated with a renaissance of classical, specifically Ricardian and Marxian,
political economy.

On this Joan Robinson remarks: "Post-Keynesian theory has plenty of problems
to work on. We now have a general framework of long- and short-period
analysis which will enable us to bring the insights of [Quesnay, Ricardo.] Marx,
Keynes, and Kalecki into coherent form and to apply them to the contemporary
scene"(Joan Robinson 1978, p. 18). Indeed, Keynes's theory gains its full force
only if associated with classical economics and the surplus principle. Geoffrey
Harcourt has contributed to establishing a synthesis of classical-Marxian and
Keynesian elements of political economy like no other. He literally paved the way
for this undertaking in recognising the immense importance, besides Keynes's
writings, of Kalecki's and Sraffa's work and, thereby, Marx's. At the moment,
heterodox political economists are still a small minority; in a way, classical-
Keynesian political economy is like a seed that may potentially become a huge
and vigorous tree, overshadowing soon the old and slowly decaying tree of
neoclassical, marginalist or supply and demand, economics.

Geoff's splendid volumes are about the unfolding of the Keynesian revolution,
comprising the establishment of strong links with classical economics, and its
Marshallian roots, the broad framework being traditional Cambridge and a touch
of Merry Old England, especially that special kind of humour associated with
that way of life. We not only get acquainted with theories but also with the
persons who made them. What went on behind the scenes gets as much
importance as the play itself - and this greatly enhances the understanding of the
fundamental issues. This is crucially important because Keynes, and Sraffa,
worked within a specific social environment and the Keynesian and the Sraffian Revolution are social phenomena involving the best minds at Cambridge and in associated quarters. Keynes could never have written *The General Theory* without the critical and, simultaneously, constructive, and enthusiastic, support of the members of the Cambridge Circus, specifically Richard Kahn who literally sacrificed himself, humbly and modestly, for Keynes's cause. Here, then, is Marshall's "Cambridge, the great mother of strong men [and women], sent into the world with cool heads but warm hearts, willing to give some at least of their best powers to grappling with the social suffering around them; resolved not to rest content until they have done what in them lies to discover how far it is possible to open up to all the material means of a refined and noble life" (Marshall, quoted in Keynes 1933, 224-25). Geoffrey Harcourt's deep and intimate knowledge of that unique Cambridge social entity, led by Keynes and Sraffa, makes both volumes a unique and invaluable piece of information, also background information, which illuminate the fundamental issues that were on the agenda, in a crucial phase of the recent history of economic theory and its significance for contemporary policy issues. Reading the theory and the policy volumes makes one feel up-to-date on everything around Keynes's theory, its development and its policy implications.

What personally I like best about Geoff's way of tackling problems is that he, like all the great political economists, is always striving for fundamentals, taking everything seriously, in the first place the arguments of the opponents. This is the way in which we can get to know about what is - probably - essential, or constitutive, about modern monetary production economies. Through his two volumes, indeed through his entire work, Geoffrey Harcourt has thus considerably added to the weight of arguments (Keynes 1921, pp. 77ff.) in favour of heterodox - Post Keynesian and Classical-Keynesian - political economy and at the expense of neoclassical economics.

These introductory remarks are followed by a sketch of the content of the theory volume. Subsequently, some crucial issues associated with Keynesian theory and its development are taken up. Some considerations on the policy volume are followed by a few concluding remarks.

*The theory volume: Keynesian theory and its development*

Geoff Harcourt's theory volume starts off with '50 years a Keynesian' which provides the framework for the entire volume on Keynesian theory, its development through post-Keynesianism in the direction of a Classical-
Keynesian synthesis. Six parts follow the introductory essay: *Keynes Now* (Is Keynes Dead?; A 'Second Edition' of Keynes's *General Theory*; *The General Theory of Employment, Interest and Money: Three Views* (with Claudio Sardoni); A Note on 'Mr Meade's Relation' and International Capital Movements (with Paul Dalziel); *Intellectual Biographies* (Joan Robinson, Lorie Tarshis, Austin Robinson, Karl Marx (with Prue Kerr), Maynard Keynes); *Tributes* (George Shackle, Josef Steindl; A Left Keynesian View of the Phillips Curve Trade-Off; The Results of the Capital Theory Controversies and General Equilibrium Theory: Some Reflections on Concepts and History; Investment Expenditure, Unrealised Expectations and Offsetting Monetary Policies); *Review Articles* (Joan Robinson and the Economics Profession; Fifty Years of Measurement: A Cambridge View (with Michael Kitson); The Kaldor Legacy; Survey on Post-Keynesian Thought; *General Essays* (Critiques and Alternatives: Reflections on Some Recent - and Not So Recent - Controversies; Mrs Robinson and the Classics (with Prue Kerr); Two Views on Development: Austin and Joan Robinson; How I do Economics; The Cambridge Contribution to Economics).

These essays contain a incredible wealth of fundamental and illuminating, often subtle points on the flourishing of Keynes's theory and its associations with other strands of thought. For example, on imperfect competition: "The central theme of [Kurt Rothschild's 1947 classic, 'Price Theory and Oligopoly'] was that oligopolists were as interested in secure profits as in maximum profits and therefore that Clausewitz's *Principles of War*, rather than the theories of Joan Robinson or Chamberlin or the then emerging game theory, was the appropriate framework within which to analyse their behaviour" (pp. 3–4). Consequently, in one of his first scientific works Geoff Harcourt attempted "to work out the implications for systemic behaviour in a Keynesian framework of microeconomic foundations containing Rothschild's Clausewitzian oligopolists"(p. 4). Later on, Geoff's lecturing on Kaldor's postwar writings resulted in asking "why such an eminent Keynesian as Kaldor insisted that full employment was the natural long-period position of a growing capitalist economy ... . There was a convenient analytical dichotomy which provided a rationale for his view. For if it were true that prices and money-wages were sticky in the short period but flexible in the long period, with prices being the 'more' flexible of the two, the Kahn-Keynes multiplier would serve to determine output and employment in the short period and ... the distribution of of income in the long period. A crucial proviso was that full employment was 'given' by the requirement that accumulation proceeded at a pace which allowed Harrod's [natural rate of growth] to be realised. ... This
was a neat logical solution but why should anyone believe that it described the world, especially when we had the prior contributions of Kalecki in which both employment and the distribution of income were determined simultaneously and in the short period, without there being any constraint to be at full employment”(9). This is a crucial point: Geoff Harcourt always insisted that Kalecki initiated the bringing together of Keynes's theory of effective demand with the classical-Marxian theory of value and distribution and, consequently, went on in the direction of a classical-Keynesian synthesis already at a time when Keynes and the Cambridge Circus were struggling to formulate the principle of effective demand. This is certainly correct. However, both political economists dealt with different problems. Keynes's *General Theory* emerged from a ferocious struggle with the dragon of orthodoxy, while Kalecki went round the Marshallian fortress in order to make, quietly, his, right, way in the direction of a classical-Keynesian synthesis. On this way, Kalecki was soon to be joined by Geoffrey Harcourt, who always considered the great Polish political economist his guiding star. Keynes's fighting, and heavily, but not mortally, wounding the dragon, was, of course, crucially necessary simply because, with the Marshallian system remaining unscathed, the path to an alternative Classical-Keynesian system of political economy would permanently have been in great danger and not many would have made their way.

On pp. 34-35 there are a few remarks on an extraordinarily strong Cambridge man, Richard Kahn, who argued as a young scholar in his dissertation for King's that Marshall regarded "Book V on the long-period theory of normal prices and quantities as the core of the *Principles*. Kahn's first major change of emphasis was to make the short period a subject of study in its own right. This was tremendously important, not because Keynes had not been coming independently to a similar opinion, but because he could now work with someone who had that point of view"(34). In his dissertation, Kahn also "developed a very realistic theory of imperfectly competitive markets and firms, including the kinked demand curve and the reverse L-shaped cost curve and all the paraphernalia of modern monopolistic competition or imperfectly competitive theory.

Now, the mystery is why did Keynes ... resolutely refuse to use microeconomic foundations which were imperfectly competitive when Kahn had them all there"(34-35). It will be suggested below that, Keynes, the unparalleled master of persuasion, attacked only those parts of the Marshallian system required to establish his general theory of employment, interest and money. Then there is Kahn's "multiplier article, which takes the apparatus of the *Treatise on Money*
and works out in quantitative terms what Keynes and Hubert Henderson did not do in their pamphlet *Can Lloyd George Do It?* (35). It may well be that Kahn could have written the *General Theory* more clearly, more concisely, with far more appropriate microfondations than Keynes. But, again, somebody had to fight the Marshallian dragon, and only Keynes could do that. In fact, the Marshallian fortress had much thicker walls than most Keynesians used to think. A great many neoclassicals were clearly aware of the strength of their system, and given this, some of them even question the existence of the Keynesian revolution (Laidler 1999).

The dangers of remaining too Marshallian, for example, regarding market structures, as is the case in Paul Davidson's work, are lurking everywhere. "An analysis of the actual working of capitalist markets would give Davidson's economics for the real world greater power and conviction. Furthermore, his contribution on this topic would be especially appropriate at a time when most of the so-called New Keynesians argue that 'Keynesian results' can be obtained at the analytical level only by introducing some *ad hoc* hypothesis of imperfect competition" (62).

And sometimes, delicate points are dealt with: "Davidson is most subtle in his analysis of the demand for money. Not only is his interpretation of the speculative aspects of the liquidity preference function much in keeping with the original spirit of Keynes's analysis, but also he should receive considerable credit for putting the finance motive, originally introduced by Keynes in 1937, centrally back on the agenda ... . Davidson recognised very clearly that in modern capitalist economies availability of finance (*not* saving) is the ultimate constraint on the rate of accumulation" (60-61, emphasis in the original).

However, "Davidson overlooked the subtle point that the finance motive only operates in a disequilibrium situation, that it is essentially a disequilibrium phenomenon. But that does not detract from his conceptual insight about the role of finance as the ultimate constraint - an insight which Kalecki also had, so that is strange that Paul has always been hostile to the latters contributions. Perhaps there is an ideological and political rather than a purely technical economic reason for this?" (64).

But there are not only important, sometimes subtle and hidden points, on Marshall, Keynes and the Post-Keynesians. Crucial Walrasian problems are dealt with, too, in relation with the capital theory controversies in the main (pp. 191-92). Here, one illuminating and most profound point follows the other. If "we are to say that the relative prices of the services of the neoclassical factors of production are 'low' or 'high' because we have a 'lot' or a 'little' of their
'quantities' ... we must know what we mean by a 'lot' or a 'little' capital before the analysis starts. That is one reason why the mutual determination nature of general equilibrium theory ... is beside the point" (191, emphasis in the original).

"The 'lot' or 'little' aspect was seized on by neoclassical economists as a measurement problem and therefore associated with aggregation puzzles. The latter, they argued, were the same ... for labour as for capital goods .... . In a sense they were right [yet not entirely, because there is Sraffa's 1958 IEA Corfu Conference remark on two types of measurement, implying that labour can be measured in principle, not real capital, however (H.B.)]- but about the incoherence in their own approach, not in the alternative approach. For increasingly, it has been realised that, even in general equilibrium systems, the whole is more than just the sum of its parts, so that starting analysis from isolated individual behaviour virtually ensures that there is a lacunae between individual's behaviour, on the one hand, and the collective outcome of all the individuals' behaviour taken together, on the other"(191, emphasis in the original).

In this context, "[Walker mentions] that Walras always tried to analyse processes, the formation of prices in particular, as they occurred in real-life markets even though towards the end of his life he changed his mind on what exactly they were .... . Kirman argues that by a process of rational reconstruction, he and other general equilibrium theorists like him imposed an auctioneer on Walras's analysis as this was the only logical way to make his general equilibrium system coherent and equilibriate (in the sense of proving existence)"(192, emphasis in the original). And it is well known that the auctioneer and the central planner are brothers in spirit. One could call this an irony of history.

One cannot leave the theory volume without mentioning the moving story of Lorie Tarshis, which, presumably, will be a discovery for many. "Tarshis went to Cambridge in September 1932 [and, together with a Canadian friend, attended] Keynes's lectures. They expected to hear an elaboration of the arguments of the Treatise on Money. Instead, the system of The General Theory emerged before them. They were given the chance to buy and read The General Theory the weekend before its publication. They were most surprised by the omission (a tactical mistake, as it turned out) of the sections on the cooperative, neutral and entrepreneur economies, the arguments concerning which contained the essential clue to Keynes's innovations"(116). This is a very important piece of background information indeed and really a matter to be pursued further (the sections in question are in Keynes's Collected Writings, vol. XXIX, pp. 76-111). "Tarshis not only absorbed the message of the newly emerging macro theory, he
also responded to the other revolution in theory of the time, imperfect competition. He was especially influenced by the writings of Piero Sraffa [...] and by Richard Kahn's lectures in the early 1930s on 'The economics of the short period' "(117). Here is another political economist on the way to a Classical-Keynesian synthesis! This is quite evident from Lorie Tarshis's first 1947 textbook The Elements of Economics which is subtitled An Introduction to the Theory of Price and Employment, according to Geoff Harcourt "a splendid blend of fact and theory and an integration of the interrelationships of micro and macro elements into the accounts of systemic behaviour"(122). This "book was being prescribed by virtually every economics department in America when suddenly the Right got to hear about it, and fearing for the subversion of American youth , got Rose Wilder Lane to write a pamphlet condemning it and sent the pamphlet to every university in America. As a result ... Lorie's book had only modest sales and next year Samuelson's book ... came out [and] took off"(42).

"It is unfortunate in many respects that we have all been brought up on Samuelson instead of Tarshis. [Indeed, the] monetarists and the rational expectations people thought that they had a cast-iron empirical case in the 70s and in the 80s with which to reject Keynesianism. They believed that the stagflation episode conclusively disapproved the claims of Keynesianism. Partly that was because the American Keynesians in the 1960s were grossly overconfident. It was Samuelson and Solow who said society could dine à la carte on any combination of inflation and unemployment they wished to choose. That was a very naive application of the Phillips Curve, and it meant that the Phillips Curve became identified as an important part of Keynesianism. Now you cannot find the Phillips Curve in The General Theory. It is completely foreign to Keynes's philosophy and understanding of the world to expect to find a sustainable empirical relationship of the nature of the Phillips Curve. [Therefore, if] we had used Lorie Tarshis's version of The General Theory we would have had no trouble at all in having the start ... of an understanding of the stagflation episode. If you had built an imported cost inflation or an autonomous money-wage rise into Lorie's version of The General Theory, the aggregate supply function would have moved in such a way that it would have given you a lower level of employment and a higher general price level, which could have precipitated a stagflationary process"(42-43).

There are a great many passages of enormous significance in Geoff Harcourt's theory volume, but Lorie Tarshis's story, which is reported here only in part, is certainly one of the most noteworthy. Indeed, a few most illuminating sentences
exhibit the bare essentials of the whole complex relationship between the monetarists and Keynes.

*From Marshall to Keynes, and beyond*

Here, some crucial issues contained in the theory volume are touched upon. These link up and are largely complementary to the issues considered in my review of Roncaglia's Sraffa (Bortis 2002). The main points considered are the relationship between Marshall and Keynes, with a glance at Walras, the nature of the Keynesian revolution, and the consequences for the development of economic theory ensuing therefrom.

1. In his theory volume Geoffrey Harcourt insists at various places on the Marshallian roots of Keynes thought; he even speaks of the "Marshall-Keynes connection" (265). However, Harcourt also mentions "the historical process through which Keynes liberated himself from Marshall's system of thought ... . The basic ingredients [of the Marshallian system] were the dichotomy between the real and the money, an emphasis on the long period, and the logically prior need to have a Say's Law long-period equilibrium position of the economy as a prerequisite for the Quantity Theory of Money to be a theory of the general price level. Until Keynes liberated himself from these aspects of his upbringing, he was not able to write the theory of a monetary production economy which comprises the system of *The General Theory*.

[Here,) effective demand is the point of intersection of the aggregate demand and the aggregate supply functions, a position which usually implies some involuntary unemployment. The money rate of interest rules the roost (it is the price which clears the money market, not the market for saving and investment). Uncertainty is a permanent environment for the most important economic decisions, especially those concerning investment and the holding of financial assets for speculative and other purposes. The consumption function is relatively stable, the investment function is relatively volatile, and the two are combined by the Kahn-Meade multiplier. Finally (this is an aberration for most post-Keynesians), the general price level is explained by a short-period Marshallian analysis at the level of the economy as a whole. For the American post-Keynesians in particular, all this is the jumping-off point for their own contributions"(265-66).

Hence Geoff Harcourt, and, in fact, all heterodox economists, think that Keynes liberated himself from Marshall, that he even carried out a revolution in thinking about economic problems. While this is certainly correct, the question, nevertheless, remains why it was possible that orthodoxy managed to integrate
Keynes into their system quite easily, through Hicks's IS-LM apparatus and Samuelson's neoclassical synthesis. Given this, doubts about the revolutionary character of Keynes's performance arose; recently, there was even talk about "fabricating the Keynesian revolution" (Laidler 1999). Or, why could Keynes be discarded so easily from the agenda through the Monetarist and the rational expectations counterrevolutions? One of the reasons is, we think, that Marshall's theoretical system already represents a monetary theory, in fact a monetary exchange economy, and, as such stands, in deep contrast to Walras's real exchange economy. This, in fact, poses a problem, not to heterodoxy, but to orthodoxy, who always held that, in a way, Marshall was backed up by Walras. In other words, if problems with Marshall arose, you could always fall back on Walras.

There is a real, and intricate, problem here. For example, Geoff Harcourt mentions Clower who "argues [. in 1997, that Keynes's system] grew straight out of Marshall's partial equilibrium demand and supply analysis with quantity leading to price rather than price leading to quantity, as in Walras. (Clower nevertheless identifies Walras as belonging ... to the same tradition as Marshall.) Clower next works through the various ways Keynes has been interpreted, usually in terms of the Keynesian cross, relating these analyses back to Marshall's models" (52-53). With the exception of associating Marshall with Walras, Clower's argument, it seems to us, is correct.

The 'Marshall-Keynes' issue is, evidently, of an extremely complex nature and only a tentative sketch of the argument can be presented here. To start with, in hindsight and taking account of Sraffa (1960), one need not agree with Keynes when he says that "Marshall's Principles of Economics is avowedly concerned with a Real-Exchange Economy" (Keynes 1933, 409) and that money "is a mere link between cloth and wheat" (Keynes 1933, 408). This is true of the Walrasian general equilibrium model in which, primarily and fundamentally, relative prices and relative quantities are determined. With Walras, there is, indeed, an exchange of commodities against commodities, C-C'. The absolute price level is determined subsequently, which means that we have C-M-C', where the Marxian-Keynesian sequence (1) for the monetary production economy is reversed.

Indeed, in the Walrasian exchange model the starting point is the endowments of goods, not monetary endowments as in a Marxian-Keynesian monetary economy which also holds for Marshall; indeed, in elaborations of the Marshallian system, budget constraints for producers and consumers appear.

To be sure, Marshall's theory becomes 'real' once a numéraire is chosen. But this is usually done for convenience, i.e. to escape the problem of a changing value
of money, due to inflation or to the law of diminishing returns, when output and prices change with the money-wage rate given. This step from money to real magnitudes is, as such, of secondary importance. Incidentally, Keynes also takes it when he moves from monetary to real magnitudes by dividing total money output, or parts of it (C and I), by the wage unit to obtain labour units (Keynes 1936, ch. 4).

Geoffrey Harcourt repeatedly, and rightly, insists on the important point that Marshall differs substantially from Walras. This is immediately evident from considering a standard Marshallian supply and demand diagram as is exhibited, for example, in Marshall 1930, p. 346, n.1. On each market one commodity is exchanged between those who offer certain quantities at prices expressed in terms of money and those who demand, equally certain quantities at money prices. The equilibrium price to be determined is an absolute price in terms of money. The shape of the supply curves reflects the law of diminishing returns (or increasing marginal costs). All this is typically neoclassical in that it reflects the marginal revolution. Equilibrium is reached through quantity adjustments which go on as long as there is a difference between the demand price and the supply price respectively; the position of the demand curves depends on the level of money incomes. This is typically neoclassical, not Walrasian where quantities are given and equilibrium is reached through price variations, and where incomes are commodities valued in terms of a numéraire. And, with Walras, all the great economic problems are solved on markets, but not through the self-regulating mechanism of supply and demand, the invisible hand, but regulated by the visible hand of the Walrasian auctioneer. Marshall, in his quest for realism, was certainly aware of the fact that, after the Industrial Revolution, monetary economies, not real exchange economies had emerged.

Thus, Marshall's neoclassical system is about a monetary economy, but of a special kind. In fact, we could speak of a monetary exchange economy, in contradistinction to Walras's real exchange-economy, and to the Marx-Kalecki and Sraffa-Keynes monetary production economy, tentatively exhibited by the Classical-Keynesian system in Bortis (1997). With Marshall, and its later textbook elaborations, the marginal principle completely dominates. This principle is, in fact, embodied in the supply and demand curves of the markets for means, more appropriately factors, of production (M-C), and of the markets for final goods (C'-M'). Hence, with Marshall, the Classical-Marxian-Keynesian scheme for a monetary production economy takes on a different shape:

\[ M-C \ldots MP \ldots C'-M'. \]  \hspace{1cm} (2)
The Quesnay-Leontief-Sraffa social and circular process of production $P$ is replaced by the Marshallian-Neoclassical mysterious process $MP$, which is, in fact, the "[mysterious] one-way avenue that leads from 'Factors of production' to 'Consumption [or, generally, final] goods' "(Sraffa 1960, p. 93). This must be so since in Marshall's neoclassical system, production, because it is relegated to the sphere of exchange, - mysteriously - ceases to be a sphere of its own. All the great economic problems are now solved on markets, i.e. in the sphere of exchange. Above all, distribution becomes a market problem; in fact, the concept of factor markets marks the crucial difference between neoclassical and classical economics; indeed, in the latter, distribution is regulated by the surplus principle and natural prices are formed within the social process of production (Sraffa 1960). With Marshall a certain quantity of money ($M$) is required to effect the circulation of commodities in the factor markets ($M$-$C$) and in the goods markets ($C'$-$M'$), the quantity of money being exogenously given. These facts are captured by the celebrated Cambridge equation (Screpanti-Zamagni 1993, p. 215):

$$M = hPY,$$

which links the sphere of circulation - the markets - and the monetary sphere. In this relation equilibrium is brought about by variations of the price level $P$. In the circulation scheme (2) above $M$ must equal $M'$: no surplus can arise since distribution is regulated in the sphere of exchange. Most importantly, full employment output $Y$ is established in the sphere of circulation through a smooth interaction of the various markets, specifically of the market for new capital goods and of the labour market: If, in a competitive situation, there is unemployment real wages decline, profits and investment rise. Employment rises rapidly for two reasons: increasing investment brings about a higher number of additional work places, and cheaper labour is substituted for capital which has become more expensive. This process implies that households and firms only react to price signals, not to quantity changes. For example, a decline of real wages in the face of unemployment may reduce the demand for consumption goods and, consequently, the rate of profits in the consumer goods sector. Given this, negative repercussions upon the volume of investment are very likely. Hence employment may decline if real wages fall. Therefore, Marshall and Pigou could not picture processes towards full employment because they had no theory to describe how markets interacted to govern overall activity and
employment; in other words, they had no theory of the functioning of the market system as a whole. (Walras had such a theory, but, with him, equilibrium at full employment was brought about by the auctioneer, not by anonymous market forces.) Consequently, both Marshall and Pigou postulated full employment. This clearly emerges from Keynes's comments on "Professor Pigou's 'Theory of Unemployment' " (Keynes 1936, pp. 272-79, specifically pp. 273-75); in any case, "[given the smooth functioning of the labour market, with the demand and supply curves for labour located at a full employment position,] it is assumed that the rate of interest always adjusts itself to the schedule of the marginal efficiency of capital in such a way as to preserve full employment. [Pigou's] title the 'Theory of Unemployment' is, therefore, something of a misnomer. His book is not really concerned with this subject. It is a discussion of how much employment there will be, given the supply function for labour, when the conditions for full employment are satisfied" (Keynes 1936, pp. 274-75). In this Marshall resembles Walras: both worked out theories of full employment equilibrium. Thus, Marshall - and Pigou - ultimately dealt with proportions, most importantly, the proportion between the output of consumption and of investment goods (C/I). Issues of scale, with structures or proportions given, and affecting all sectors were not considered. The smooth interaction of markets suggested above, to bring about full employment, starting from an unemployment equilibrium is not considered and taken for granted: the invisible hand becomes a matter of belief. Hence the precise way in which the market mechanism works to bring about full employment represents, besides MP in relation (2) above, a second mystery in neoclassical analysis of the Marshallian type. And it is of crucial importance to note that Walras is of no help here: In the Walrasian system, the visible hand of the auctioneer brings about a full employment equilibrium, not the invisible hand of anonymous market forces. In any case, in the neoclassical-Marshallian system, Say's Law is a matter of real forces, i.e. of the iron law of the market, ultimately based upon the law of diminishing returns (and of diminishing marginal utility) associated with well-behaved demand and supply functions in all markets. Absolute prices, and hence money incomes, adjust to a given quantity of money such that full employment prevails.

The classical form of Say's Law, however, states that money incomes are always entirely spent on consumption or capital goods, implying that saving governs investment. Consequently, absolute overproduction is impossible. As is well-known this view is reversed in the Kahn-Keynes multiplier: investment here
governs saving and the rate of interest is determined on the money market, partly through liquidity preference.
The strong men of Cambridge - Sraffa and Kahn in the main - could have provided all the ingredients required for the building of a fully-fledged monetary theory of production as exhibited by relation (1) above, incorporating the surplus principle of distribution in the shape of Kalecki-Kahn-Tarshis mark-up pricing and Sraffian prices of production formed in the social process of production. However, being a master of persuasion, Keynes attacked only those parts of the Marshallian system he needed to establish his principle of effective demand. As a consequence, Keynes's - potential - monetary theory of production grows straightaway out of Marshall's neoclassical monetary theory of exchange. In fact, Keynes's theory of employment, his theory of effective demand, directly emerges from considering all the Marshallian markets taken together to establish his aggregate demand and aggregate supply curves. The intersection of both determines output and employment as a whole. The fundamental relation is of course the aggregate demand curve which implies the multiplier relation. According to this relation consumption and saving now depend on income, implying that investment governs saving. The multiplier relation pictures how the entire economic system functions to determine an equilibrium level of employment through quantity variations with prices adapting passively. Absolute overproduction or involuntary unemployment is now possible. In fact, by means of a very simple but highly ingenious macroeconomic theory Keynes had demonstrated that the system as a whole worked differently from the sum of its parts, that is the various markets: the first postulate of (neo-)classical economics holds, but not the second one; paradoxes occur, most importantly the paradox of thrift. Therefore, Keynes had elucidated one of the two Marshallian mysteries, the functioning of the system regarding the determination of the scale of activity, not only of proportions, and thereby revolutionised thinking about economic problems. Keynes also provided a solution to Marx's realisation problem C'-M', which, to emphasise its crucial importance, Marx had dramatically pictured as the salto mortale of the commodity in volume I of Das Kapital. For the first time a theory of involuntary unemployment had been set forth, at the expense of sacrificing the neoclassical theory of interest, however. Keynes's theory of interest and money is an elaboration of Marshall's Cambridge equation (relation 3 above), where h, if made dependent on the rate of interest i, now expresses the demand for money for both transaction and speculation purposes. This perhaps explains why, as Geoff Harcourt notes, that, in The General Theory, Keynes has become an "exogenous money person" (280), while
before and after he seems to have upheld an endogenous theory of money. This is not necessarily so, however. Indeed, Keynes "still thought that what he was doing in A Treatise on Money was providing a more usable version of the quantity theory of money and that his fundamental equations, which explain the price level for available and unavailable goods, were just other ways of writing down the quantity theory of money"(38-39). Needless to say, that all this greatly facilitated the emergence of the neoclassical synthesis. In fact, a theory of endogenous money, associated with a disposal of the quantity theory, can only be established if the rate of interest is linked up with the surplus principle. The results of the Keynesian Revolution must be combined with those of the Sraffian Revolution. Geoffrey Harcourt is one of the very few to have clearly seen this crucial point.

Consequently, all the arguments just suggested underly Geoff Harcourt's theory volume where the Marshallian roots are emphasised. The C'-M' part of Keynes's monetary theory of production thus emerges naturally from Marshall's neoclassical exchange version, although its birth required formidable efforts by the strong Cambridge men. The revolutionary difference between Marshall and Keynes can perhaps be illustrated best by the notion of rationality. With Marshall the rationality of the market system coincides with the aggregate rationality of individuals or the rationality of a representative individual. With Keynes, however, the whole is more than the sum of the parts, and the rationality of the system differs from or is even opposed to the rationality of the individuals, the paradox of thrift being the most obvious illustration of this point. Geoff refers several times to this important point, particularly when he speaks about avoiding "the modern heresy of analysing systemic behaviour in terms of a representative agent model"(265).

However, Keynes's underemployment equilibrium could, in a neoclassical vein, also be considered a monetary disturbance and be eliminated in various ways as is evident from the Cambridge equation mentioned above. The neoclassical synthesis during the 1950s and 60s emphasised changes in M (monetary policy) or direct stimulation of Y (fiscal policy). But, at the beginning of the 1970s all this was considered dangerous. Inflation accompanied by a distortion of economic structures could ensue. Therefore, why not simply give way to the the market mechanism, which, if undisturbed, would eliminate involuntary unemployment, with money-wages and prices adjusting passively, given the quantity of money and its growth. Considering this, it becomes evident that the Keynesian revolution gravely damaged the classical, 'monetary', version of Say's Law, but left the neoclassical 'real', more appropriately, the 'Marshallian
circulation version based upon the supply and demand mechanism' unscathed; indeed, in *The General Theory* the first (neo-)classical postulate continues to hold! Potentially, the market mechanism is supposed to function smoothly: Marshall's *natura non facit saltum* is still there, underlying effective demand complications. The market mechanism, in a way a natural institution, if not disturbed by human intervention, may still bring about ultimately, in the long run, the best possible world. Here uncertainty is only relevant to the individual investment project, but not to the investment volume as a whole. As a consequence, the Keynesian revolution was *necessary* to knock out the classical, monetary, version of Say's Law, but not *sufficient* to damage the Marshallian or neoclassical market version of this law. Another revolution, i.e. the Sraffian one, was required. Indeed, Sraffa (1960) embodies two dimensions, a negative, critical, one and a positive, constructive, dimension. The former is associated with a fundamental critique of neoclassical market or supply and demand theory, the second is crucial for the further development of Keynes's theory of employment and the associated classical theories of value and distribution. Both dimensions are embodied in Geoff Harcourt's theory volume.

2. The significance of the first, critical, dimension of the Sraffian revolution emerges from the fact that Keynes disproved the classical (Ricardian) version of Say's Law, not the neoclassical, Marshallian, one. In the classical version of Say's Law money is indispensable to effect transactions, but is otherwise unimportant. Specifically, money is not held as a store of value since it does not yield any return. Therefore saving in money terms always leads to investment, saving determines investment: "M. Say has ... most satisfactorily shewn, that there is no amount of capital which may not be employed in a country, because demand is limited by production. No man produces, but with a view to consume or sell, and he never sells, but with an intention to purchase some other commodity, which may be useful to him, or which may contribute to future production" (Ricardo 1821, p. 290). Hence money is indispensable since it must ensure the circulation of goods in the social process of production. This follows straightaway from François Quesnay's various versions of the *tableau économique* and the development of this model by Leontief and Sraffa. Keynes's disproving of the classical - monetary - version of Say's Law was of course a necessary and extremely difficult undertaking, but far from sufficient to strike a decisive blow to orthodoxy which, in the course of the marginal revolution in the 1870s, had, in the hands of Marshall, become supply and demand analysis. This revolution implied that the marginal principle and market
prices replaced the surplus principle and natural prices respectively. Say's Law now operated in the real, market, sphere. Needless to say that the second, market, version of Say's Law is immensely more sophisticated that the first version. Consequently, an equally sophisticated argument was required to destroy, or, at least, to inflict mortal wounds on it. The argument in question is evidently the capital theory debate, which grew out of the first, critical, dimension of Sraffa (1960). In this field Geoff Harcourt has done decisive work. He provided the only complete and comprehensive statement of the argument in his now celebrated *Some Cambridge Controversies in the Theory of Capital* (Harcourt 1972); Essay 14 of the theory volume provides some reflections on concepts and history in the light of the results of the capital theory controversies for General Equilibrium Theory (188ff.), and Essay 2 of the policy volume, Theoretical Controversy and Social Significance: An Evaluation of the Cambridge Controversies (23ff.) stresses that the position taken in these controversies is fundamentally important for the way in which economic and social policies are made. The capital theoretic controversy, as is associated with the first, critical, dimension of Sraffa(1960), showed that the even in the long run there was no iron law of the market by necessity. Of course, Walras's general equilibrium model may now be called upon, as a helper in great distress. But the Walrasian real exchange model, where ultimately an auctioneer is needed to bring about equilibrium, is not relevant to a modern monetary production economy, something which the Cambridge political economists with their sense of realism, Marshall in the first place, were certainly aware of. Hence Marshall worked out his monetary theory of exchange. And we now know that even the auctioneer as a planner is of no help either. Keynes, Sraffa, Garegnani, Harcourt, Pasinetti, and others perceived all this with unsurpassable clarity. Consequently, the fundamental insight that one cannot associate more capital with lower interest rates, and vice versa, also, underlies Geoff's theory and policy volumes. This implies that the market cannot solve any of the great economic problems, i.e. value, pricing, distribution and employment, on a fundamental level. An alternative, heterodox, approach to these great problems is required as a consequence. 3. Hence, heterodox political economists have provided solid arguments against the validity of both the classical and the neoclassical version of Say's Law, and thereby widely opened the way beyond Keynes, in the direction of post Keynesian and Classical-Keynesian political economy. Geoffrey Harcourt has greatly contributed to paving this way, especially with the contributions
contained in his theory volume. Keynes's short-period theory was extended and enriched through various authors, Davidson, Weintraub, Minsky and others. Michal Kalecki developed a medium term theory of cyclical growth on the basis of Classical-Marxian and Keynesian elements of analysis (Kalecki 1971). Last but not least, the Sraffian Revolution (Sraffa 1960) enabled the completion of the Keynesian revolution by providing the all-important long-period dimension: The social and circular process of process of production once again stands, as it should be, in the centre of the monetary theory of production (relation 1 above). In a classical-Sraffian vein, distribution - the wages structure and the uniform natural rate of profits - is regulated by the surplus principle within an institutional framework broadly associated with the relations of production. Natural prices depend upon the conditions of production and upon distribution, i.e. the rate of profits. Interests may now be considered as part of the surplus, and the rate of interest may be seen as governed within the framework of the surplus principle, as is indeed suggested by Sraffa. This, in turn, allows the introduction of endogenous money, since, in the long run, the money market is now no longer required to determine the interest rate. On a Pasinettian basis of vertical integration (Pasinetti 1981, and, above all, Pasinetti 1986) Sraffa's long-period theory of value and distribution may be linked with Keynes's theory of effective demand, with normal output and employment being governed by the entire institutional system (Bortis 1997, pp. 131-251). We thus arrive at a synthesis of classical and Keynesian elements of analysis which has been tentatively sketched in a preparatory vein in Bortis (1997). In his theory and policy volumes, indeed in his whole life's work, Geoffrey Harcourt has, to an unmatched extent, paved the way to this Classical-Keynesian synthesis. - And now, very shortly, a few other crucial issues. 4. To distinguish pure and applied theory is of immense methodological relevance and may be of some help to disentangle some methodological issues in Post Keynesian theory. Pure theory is about principles, the way how causal factors are supposed to act in principle, in any situation. *Pure theory is timeless, no leads and lags enter the picture.* Applied theory, however, is about historical realisations of abstract causal forces. Historical time, and, eventually, space enter the picture once theory is applied. This point has been dealt with in Bortis (2002, pp. 82-84) and, more extensively, in Bortis (1997, pp. 81-9, 118-30, 241-52, 259-81). To start with applied, historical, models is dangerous and inevitably leads to confusion, agnosticism and dispair. Historical phenomena, e.g. the great depression of the 1930s, are so complex that little can be done without good and
solid theory. This, however, requires a discussion of the principles underlying various approaches. The whole of Geoff's theory volume is precisely about this.

5. Geoff Harcourt also emphasises the crucial role of norms as stabilisers of an economic system in the Kaldorian system (240/41). "Like Keynes and Arthur Okun, Kaldor always stressed the need for the establishment of 'norms' in order to give stability to the workings of economic systems, the modern counterparts of the role which natural prices and prices of production respectively played in the classical and Marxian systems, and normal prices and quantities played in Marshall's Principles" (241). This idea is also fundamental to Classical-Keynesian political economy (Bortis 1997, ch. 4). Here norms are associated with institutions, the institutional system and the notion of system equilibria, in contradistinction to market equilibria.

6. In this context, Robertson, relying on Guillebaud, mentions that "Marshall used the term 'the long period' in two quite distinct senses, one which stands realistically for any period in which there is time for substantial alterations to be made in the size of plant, and one in which it stands conceptually for the Never-never land of unrealized tendency" (Robertson 1956, p. 16). Geoff Harcourt - who else! - pointed out this crucial distinction to me in the early 1990s. Subsequently, in Bortis (1997), I suggested that, appearances notwithstanding, Marshall's second definition of 'the long period' is relevant for long-period analysis, not the first one. Indeed, with the usual first meaning of this notion the long-period equilibrium is located in the future and would come about if the persistent economic forces could work out undisturbed, i.e. if there was a stationary state or a steadily growing one. This first of the Marshallian definitions is largely irrelevent because 'in the long run we are all dead'; moreover, there are no 'steady states'; and, finally, there are the results of the capital theoretic discussion. The second meaning of 'the long period', however, allows us to locate the long-period equilibrium in the present and to associate it with an institutionally governed system equilibrium. This takes us back to the Classicals and Marx whose surplus approach to economic problems has proved so immensely fruitful.

The policy volume: Sensible economic and social policies for the modern world

The policy volume "contains virtually all of [Geoffrey Harcourt's] writings on policy from the earliest times to the present day" (p. x). Significantly, he starts with an essay picturing the "contemporary relevance of post-Keynesian
economics [to] the links between [his] evolving structures of thought about economics and the policy proposals [he] has made over the past 40 years or more. In part II are four essays which set the background to my policy recommendations" (p. x). Most significantly, Geoff Harcourt teases "out from the findings of the controversies in capital theory, their significance for policy" (p. x). Part III is about "Taxation Reform and Investment Incentives" and Part IV is on "Accounting Conventions and Policy". In "Package Deals" (part V) highly relevant themes are taken up, for example: "The Social Consequences of Inflation", "Markets, Madness and a Middle Way" and "Pay Policy, Accumulation and Productivity". "The final essays [of part VI] celebrate a number of great economists and their views on policy. Alas, Colin Clark and Nicky Kaldor are dead - but not their ideas; nor are Joe Stiglitz and John Cornwall who were much influenced by Kaldor in particular, as I was too" (p. xii).

Just one quote to hint of the spirit underlying the whole volume. "At the same time as Tommy Balogh and Nicky Kaldor in the United Kingdom were identifying Monetarism as the incomes policy of Karl Marx, I was scandalising the increasingly technocratic and value-free economics profession in Australia by talking explicitly about these attempts to recreate the reserve army of labour" (theory volume, p. 19). This indeed illustrates beautifully the new spirit of sensible economic and social policies for the modern world that emerges from post Keynesian and Classical-Keynesian political economy. For Geoff Harcourt, there is little doubt that the future lies with these humanist middle-way policies (theory volume, pp. 281-83).

Towards Classical-Keynesian Political Economy

There is, at present, increasing dissatisfaction with orthodox equilibrium economics, which is ultimately based upon Walras's exchange based general equilibrium model. An important reason is that the age of the great social doctrines which emerged from the French Political Revolution and from the English Industrial Revolution is now gradually coming to an end. It would indeed seem that the downfall of socialism has not brought about the triumph of liberalism but starts to initiate its decline. It becomes increasingly evident that more and more market, Marx's everything becoming a commodity in a global framework, does not contribute to solving the great problems of our times, i.e. involuntary unemployment and growing inequalities in the distribution of incomes and wealth. Instead of a tendency towards harmonious general equilibria,
destabilising forces, associated with Kaldorian cumulative processes, may well be at work, leading us away from eventual equilibrium positions. In such a situation it is natural that social scientists in general and economists in particular are looking for a conceptual, theoretical, framework capable of broadly explaining what is going on in the real world. Consequently, heterodox theories gain in importance. It would seem that a synthesis of Classical and Keynesian political economy is the most promising way to establish what may be called a humanist alternative to the liberal Walrasian equilibrium system, including its simplifying textbook versions. A considerable amount of preparatory work has already been done. Geoffrey Harcourt's unique collection of essays on Keynesian and Post-Keynesian theory and policy issues represents a most precious contribution to this kind of work. Both volumes, taken together, constitute an invaluable source of information on all the crucial issues related to the twin Keynesian and Sraffian revolution of the 1930s, the theoretical developments that followed right up to the present and to a number of policy issues, all highly relevant in this complex age of globalisation. And all these fundamentals are presented in a most lucid style. And more. The protagonists, whom Geoff knew personally - with the exception of Keynes - emerge before us in their Cambridge environment. Given all this, Geoff Harcourt's theory and policy volumes are pleasure to read and make one feel up-to-date again regarding Keynesian, Post-Keynesian and Classical-Keynesian political economy. While Joan Robinson quoted Bergson as saying that "time is a device to stop everything from happening at once", the late Dharma Kumar suggested that "space is a device to stop everything happening in Cambridge" (theory volume, 337). One cannot deny that there is some truth in this. Indeed, decisive changes in economic theory following up the late 19th century exchange based marginalist and supply-and-demand revolution took place in Cambridge. During the Years of High Theory, working side by side, without always touching each other in matters of theory, and supported by the most brilliant Cambridge economists, Keynes and Sraffa laid the foundations for a monetary theory of production, capable of carrying a solid theoretical structure, and initiated a tremendous discussion, critical and constructive, on this subject. Geoffrey Harcourt's volumes on theory and policy splendidly capture these highly important events. Both are landmarks on the way to a humanist Classical-Keynesian system of political economy.

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References


