Algorithmic Social Sciences Research Unit

ASSRU

Department of Economics
University of Trento
Via Inama 5
381 22 Trento, Italy

DISCUSSION PAPER SERIES

13 – 2014/I

B.P. ADARKAR'S CRITICAL CONTRIBUTIONS TO MONETARY THEORY

AND THE THEORY OF MONETARY POLICY

THE SEVEN GOLDEN YEARS: 1934 - 19412

K. VELA VELUPILLAI[1]
&
ISABELLA. M WEBER[2]

DECEMBER 2014

[1] Department of Economics, The New School for Social Research (NSSR), 6 East 16th Street, New York, NY 10003, USA. Email: kvelupillai@gmail.com
[2] Department of Economics, The New School for Social Research (NSSR), 6 East 16th Street, New York, NY 10003, USA

B.P. Adarkar's[♥] Critical Contributions to *Monetary Theory* and the Theory of *Monetary Policy* The Seven *Golden* Years: 1934 - 1941[♣]

K. Vela Velupillai
&
Isabella. M Weber

Department of Economics
The New School for Social Research (NSSR)
6 East 16th Street
New York, NY 10003
USA

7 December 2014

[♥] *Bhalchandra Pundlik Adarkar* (1903-1988), was – in the period relevant here – first, at the Benares Hindu University and, then, at Allahabad University, till 1941. Thereafter, he left University life for a successful, policy-oriented, career in the Indian Government, latterly in its diplomatic service, too (cf., J. Krishnamurty, 2011, Khatkhate, 1988 and Chandavarkar, 1988, 1989).

[♣] It is almost as if Adarkar, *still thirty years old in 1934*, was acting according to the precepts in **Genesis**, *41-46* (the *King James* version; bold italics added):

> "And Joseph *was* **thirty years old** when he stood before Pharaoh King of Egypt. And Joseph went out from the presence of Pharaoh, and went throughout all the land of Egypt. And in the **seven plenteous years** the earth brought forth by handfuls. And he gathered up all the food of the **seven years**, which were in the land of Egypt, and laid up the food in the cities: the food of the field, which *was* round about every city, laid he up in the same. And Joseph gathered corn as the sand of the sea, very much, until he left numbering; for *it was* **without number**."

The *enduring* nature of Adarkar's critique of orthodox monetary theory, especially as a foundation for monetary policy, is – we like to think – exemplified by it being '*without number*', i.e., unending.

Abstract

Adarkar's fundamental inter-war contributions to the foundations of monetary theory and the theory of monetary policy, largely from the perspective of the evolution of Keynes' thoughts and insights into a monetary theory of production, is studied sympathetically. A case is made that the issues at the frontiers of monetary macroeconomics – particularly, the nihilistic stance on monetary policy – can be criticized for illogical and empirically meaningless propositions, reflecting Adarkar's acute analysis during what we call the *golden seven years* (of 1934 – 1941). Some conclusions are suggested, on a revival of a Monetary Macroeconomic alternative to the varieties of orthodoxies now prevalent, based on Wicksell, Keynes – *and Sraffa*.

JEL Codes: B22, B31, E43, E52, E60.

Key Words: *Neutral Money*, *Monetary Equilibrium*, *Real Rate of Interest*, *Natural Rate of Interest*, *Own Rates of Interest*

§ 1. A Brief Preamble

> "It is a tragedy that the basic contributions of B P Adarkar, …., *on monetary theory and policy*, … should have faded out of public memory in contemporary India."
> Khatkhate, *op.cit*, p. 2093, italics added.

This melancholy observation by Deena Khatkhate, now more than a quarter of a century ago, is further reinforced by the comprehensive 'fading out' of current frontiers in monetary theory and the theory of monetary policy 'the basic contributions of B P Adarkar', not only 'out of public memory in contemporary India'[1]. But the stirrings at the beginning promised much. Adarkar's two early books were most favourably reviewed in prestigious Journals by three '*young Turks*', who in later years went on to different kinds of 'fame'[2].

In this essay we *try* to rectify, even if inadequately and only partially, this comprehensive negligence of Adarkar's pioneering contributions[3] to the frontiers – and its shifting – of monetary theory and the theory of monetary policy, during what we call the golden seven years of 1934-1941.

Thus, in the next section we outline, succinctly, but as faithfully as our abilities permit, the fundamental contributions to monetary theory and the theory of monetary policy by Adarkar, as encapsulated in his outstanding works of the *golden seven years, 1934 – 1941*. To be sure, there were important contributions from his fertile pen in the years before 1934 (for example, Adarkar, 1932, 1933) and those that came after 1941 (but here the theoretical *fecundity* seemed to have 'dried up', for reasons that puzzled even sympathetic aficionados like Khatkhate (*op.cit*)). We

[1] Khatkhate's sad reflection is even more poignant, given the ultra-orthodox dominance of conventional policy 'nihilism' that is, sadly, in vogue in Modi's India and its monetary policy frameworks, underpinned by a monetary theory which, Adarkar showed, with his penetrative and critical analysis, was irrelevant even in its formative years.

[2] *Marjorie Tappan Hollond* (1936), Director of Studies at Girton College, Cambridge (and in this a direct predecessor of the first author!) and Joan Robinson's implacable nemesis; *Eleanor Lansing Dulles* (1936), a sister of the controversial Dulles brothers; and *Harold Barger* (1937), later a Chairman of the economics department at Columbia University, who was 'expelled' by the radical young members of the department, from attending their courses (Tharp, 1970). Our friend and colleague, Professor Anwar Shaikh, has bitter memories of attending Barger's apologetic lectures at Columbia, in 1970. But it could all have been so different (cf., Coats, 1993, p. 208, footnote 60, p. 211).

[3] Where Adarkar is referred to, in contemporary – overwhelmingly Keynesian – monetary literature, it is rarely for its own intrinsic merit; rather – as in, for example, Lawlor (2006, in particular, Ch. 13) – often as a handmaiden to one or another substantiation of a Keynesian stance and that, too, as a specimen of an example in the history of economic thought.

are, however, of the reasonably well grounded opinion that the core of Adarkar's fundamental stances on theory and policy in a monetary economy – especially, though not uncritically, from the perspective of Maynard Keynes's developing thoughts on these issues – can be found in the pioneering papers of the *golden seven years*.

We also try, in the sense of *Perverspective*[4], to place in the *forefront* some of the key issues of *enduring relevance* that Adarkar emphasized, in monetary theory and the theory of monetary policy, against which to understand and interpret *the perennial frontiers of every kind of orthodox monetary macroeconomics*. The pervasive and subversive nature of *monetary neutrality*, the *natural rate à la Wicksell* and the kind of dichotomy between a barter and a monetary economy that implies the stunted vision that emphasizes that *money is only a veil* emerge as the key triptych, the unifying or disciplining concepts, of *perverspectivity*.

Finally, in § 3, we speculate that a comprehensive study of Adarkar's unfortunately neglected works in monetary theory and the theory of monetary policy may result in the eventual emergence of a critical monetary macroeconomics, one that is a synthesis of Wicksell, Keynes - *and Sraffa*.

We hasten to add that there were also exceptions to the sustained importance of monetary theory and the theory of monetary policy in Adarkar's work of the *golden seven years*. For example, there is the important critique of the conclusions in Shirras (1935), by Adarkar & Sen Gupta (1936). On the other hand, it is not unlikely that the investigation by Adarkar & Sen Gupta (*op.cit*.,) was inspired by the kind of suggestion made by Keynes[5] to his undergraduate pupil,

[4] As in Hughes & Slyce (1998), where traditional perspective is 'subverted', whereby 'the far points in [a] picture are nearer than the near points, which are far away' (ibid, p.9); i.e., we take a view that is diametrically opposed to any kind of 'Whig interpretation of history'. There are, of course, many alternatives to the classical ('Western') perspective, originally codified by Piero della Francesca. In particular, the paradoxes – *to the western mind,* akin to the alternative Non-Euclidean vision Keynes (1936, p. 16; Adarkar, 1937b, pp. 230-1) urged on economists wishing to challenge orthodoxy – generated by horizontal and Japanese perspectives are – or should be – analogous to those engendered by *perverspective*.

[5] Although the reference to Pigou (1932) - presumably to its Chapter II, in Part V – belies this interpretation!

David Champernowne[6]. Given Adarkar's persistence in emphasizing the critical and the *logical*, in his investigations of the modern classics of interest rate theories – Wicksell, Fisher, Keynes, Hayek and Sraffa, in particular – the way *the contrapositive in logic*[7] is used to cast serious doubts on Shirras's conclusion regarding the (sic!) *Pareto law*, may be the *pièce de résistance* of the Adarkar & Sen (*ibid*, p. 170; italics added) critique:

> "Professor Shirras's argument is that *if* Graph I is *not linear*, Graphs II and III are *not linear*, inasmuch as these latter resemble it as regards some of the points. However, this line of thinking might well be *reversed*, and it might be asserted with as much truth that *if* Graphs II and III are, as the look, *linear*, Graph I too *cannot be non-linear*!'

§ 2. The Contributions of the *Golden Seven Years*

> "Mr. Adarkar's book [**The Theory of Monetary Policy**] is well worth reading. … The book is in no sense confined to a reiteration of old truths but throws new light on obscure problems.
> Dulles, op.cit, p. 633.

One of the best ways, in our opinion, to read and appreciate Adarkar's sadly neglected classic on *The Theory of Monetary Policy*, at least in a contemporary critical approach to monetary theory and the theory of monetary policy, would be to consider it as a companion work to the classic by Eprime Eshag (1963). In this way they would form a valuable antidote to the, often implicitly, *critical* approach to the Cambridge vision of Monetary Theory[8], spanned by Hayek (1931) at one end of the orthodox spectrum and Lucas (1995) at the other, linked by Patinkin (1965; 1956,

[6] Is it pure speculation that the investigation by Adarkar & Sen Gupta (*op.cit*.,) was inspired by the kind of suggestion made by Keynes to his undergraduate pupil, David Champernowne? As Champernowne (1973, p. 1)) recollected in the opening sentences of his King's College (of which College Adarkar had also been a member as, indeed, the first author of this essay) prize fellowship dissertation of 1936:

> "The choice of the subject 'The Distribution of Income between Persons' had arisen from a suggestion to the author, as an undergraduate, by one of his supervisors, Mr. J. M. Keynes, that he should search for an explanation of the remarkable degree of conformity with Pareto's law displayed by many statistics of income-distributions published by the taxation authorities of various countries."

[7] The *contrapositive* in standard mathematical logic is: ***If A then B = If ¬ B then ¬ A***.

[8] We consider the *Cambridge tradition* in theorising about money and a monetary production economy to have begun with Thornton (1802) and 'end' with Keynes (1936), with – especially – Ricardo, Marshall, Pigou and Robertson (before 1936), providing the intermediate, transitory, path towards a final synthesis at the hands of Maynard Keynes. Incidentally, Thornton, through his daughter, Marianne Thornton, bequeathing a substantial sum (believed to have been £8,000, originally, and worth about £750,000, today) to her great nephew, *Morgon Forster* ('E. M. Forster'), the celebrated author of *A Passage to India* – and a fellow 'Kingsman' to Keynes and Adarkar – enriched the Indian connection with Cambridge.

1989) and Leijonhufvud (1968)[9]. That which we find common to the orthodox – anti-Keynesian – approach to monetary theory is its virulent stance on *neutrality* and its desirability and, indeed, necessity for substantiating the perennial *neoclassical dichotomy* (referred to as the *classical dichotomy* in this paper) between a barter and a monetary economy, and the relevance of the former to derive propositions about the latter. The denial of this possibility is what unified Wicksell and Keynes, in the first instance and, then their second generation followers, especially Lindahl and Myrdal in the case of the former, and Kahn and Robinson, in the case of the latter.

Thus the works by Adarkar in those *golden seven years*, on monetary theory and the theory of monetary policy, can be said to be unified by a deep critical study of *neutrality*, *the classical dichotomy* and the *quantity theory*, essentially from an anchoring in Keynes (1930). Adarkar (1937b) and Adarkar & Ghosh (1941) are the exceptions to this anchoring in Keynes' *Treatise*.

Adarkar (1936), which he himself characterized as 'an essay on the theory of the trade cycle'[10], is essentially a critical 'review article' of Durbin (1935), but again from the point of view of Keynes' *Treatise* (cf. in particular, pp. 94 &98). It is, however, much weakened by the absence of an analytical definition of '*a progressive state*', which was not only 'in the air' at the time he wrote this review article (particularly in the books by Harrod, 1936, Haberler, 1937 and Lundberg, 1937), but also by a non-familiarity of the formal framework for the 'aims and means of monetary policy' developed by Lindahl (1929 a, b), independently and before both Keynes (1930) and Keynes (1936)[11].

---

[9] None of the three, as might be expected, even mention Eshag (op.cit) or Adarkar (ibid). Irving Fisher and Milton Friedman, especially in this context of orthodoxy, together with Hayek, form the triptych that defines the field Lucas has now made his own nihilistic monetary theoretic and theory of monetary policy frameworks. The *quantity theory*, neutrality and the *classical dichotomy*, form the three pillars that underpin the neoclassical monetary theoretic and theory of monetary policy edifice.

[10] Lokanathan's (1938) later critical review of Harrod (1936), in the **Indian Journal of Economics**, does not seem to have caught Adarkar's critical eye, even although the latter's articles of the golden seven years in the sub-period 1936-1941 all appeared in the same Journal.

[11] In personal correspondence with the first author, the late Bent Hansen, who produced the 'last flowering' of the 'Stockholm School' (Hansen, 1951), and was Lindahl's last formal doctoral student, wrote as follows (*Letter to Velupillai*, January 2, 1985; emphasis in the original):

> "[Lindahl] did not expect much from Keynes. He had a low opinion about A Treatise on Money which he (rightly) found much inferior to his own two volumes on Penningpolitik [Monetary Policy]. He told me .. .. that he thought the General Theory was much the same as the Treatise against which I argued strongly"

The enduring relevance of the contributions of the *golden seven years* depend crucially on Adarkar's prescient critical analysis of Fisher's *rate of return* (Adarkar, 1934), Hayek's *neutral money doctrine* (Adarkar, 1937a), the chapters on Wicksell and Sraffa (V & VII, respectively in Adarkar, 1935) as well as chapters XI – *Is Barter Theory Relevant?* – and XV – *The Gibson Paradox* (*ibid*). Between these contributions of the *golden seven years*, and considering as one article in two parts his review of the GT (Adarkar, 1937b) and the critically pedagogical polemic on *Mr. Keynes's Theory of Interest* (Adarkar & Ghosh, 1941), we are able to think of seven classics in seven years that encapsulate Adarkar's vision for an enlightened understanding of monetary theory and the theory of monetary policy.

Taking them in reverse order of publication, the greatest difference between the review of the ***GT*** in 1937 and an evaluation of the debate on interest rate theory sparked off by the *liquidity preference* **vs**. *loanable funds* theory, is his increasingly critical attitude towards Ohlin as a representative of the neo-Wicksellians, or, as Ohlin referred to them, the *Stockholm School*[12]. Whether this is because Myrdal (1939) had been published in this 'interregnum' and Adarkar was finally able to free himself of a reliance on the Davidson-dominated interpretation of the developing monetary theory of the Swedes in Thomas (1936)[13], we can only conjecture. More importantly, however, there was the characteristically brilliant review by Joan Robinson (1939), of Myrdal (op.cit), which finally and decisively showed how and why Swedish sequence analysis, which entailed disequilibrium dynamics, was perfectly consistent with the GT device of aggregate Savings (***S***) = aggregate Investment (***I***), which Keynes had to struggle to define, escaping from the self-imposed strictures of the *Treatise*.

The Anglo-Saxon literature – 'the attractive anglo-saxon kind of unnecessary originality', *pace* Myrdal (1939) - had to wait for the classics by Lindahl, Myrdal and Lundberg to appear (and the masterly review by Robinson, 1939) to realize that the neo-Wicksellians had produced a framework for a monetary production economy, based on Wicksell (1898), that was at least as innovative as Keynes and Kalecki. It may well be useful to put on 'written' record also the following. When Kaldor interviewed Velupillai, in May, *1973*, he had only one question: 'Why do you want to come to Cambridge when you have Lindahl in Sweden'? Lindahl had died in *1960*!

[12] In private correspondence between Lindahl, Lundberg and Hammarskjöld, there was complete agreement that Ohlin did *not* represent the monetary theory of the neo-Wicksellians. These letters are deposited in the *Lindahl Archives*, with which the first author worked, as far back as the early 1980s.

[13] Which was itself seriously deficient in understanding and representing the works by Lindahl and Myrdal, in developing Wicksell's macrodynamic framework, even along the lines of the early critique by David Davidson.

Both Robinson (op.cit) and Shackle (1967, chapter 10) came to the realization that it was Myrdal's innovative accounting concepts of ***ex ante*** – ***ex post***[14] which implied that the disequilibrium dynamics of the Hammarskjöld-Lundberg sequence analysis was perfectly consistent with Keynes' macrostatical accounting identity between ***S*** and ***I***. As Joan Robinson has emphasized many times, Kalecki's 'Keynesian' macroeconomics had the advantage of starting from Marxian two-department theory of accumulation and *reproduction*; the neo-Wicksellians, again emphasized by Joan Robinson (op.cit), had the advantage of having Wicksell's unstable cumulative process as the starting point for their development of macroeconomics. Thus, these two alternative visions of macroeconomics were intrinsically dynamic, whereas Keynesian macrodynamics was an *ex post* (sic!) construction, primarily by Harrod (1936 & 1939), which was grafted onto the *macrostatics* of the GT and caused so much misinterpretations and the eventual emasculation at the hands, first, of the *Neoclassical Synthesis*, and subsequently by all and sundry, to result in the unrecognisable[15] *New Keynesian* edifice.

It remains an intellectual puzzle for us to understand why Adarkar's works of the *seven golden years* do not refer to Kalecki[16] or more cogently to the neo Wicksellians, although the latter point must be qualified by the systematic and persistence references to Wicksell, monetary equilibrium, the natural rate – money rate dichotomy and its implications for an unstable cumulative process.

Adarkar's critical - albeit sympathetic – exposition of Wicksell's monetary theory, especially the role played by the natural, or normal, rate of interest, jointly with the money, or bank rate of interest, in price stabilization is masterly. Yet it is marred by both an unsympathetic – understandably – and possibly, incomplete understanding of *Austrian capital theory*. Moreover, Adarkar, writing in 1935, seems to have been comprehensively unaware – as mentioned above – of Myrdal (1931; even in its German version, as *Der Gleichgewichtsbegriff als Instrument der*

[14] These concepts first appeared in the German translation of Myrdal (1931).
[15] From the point of view of the **GT**, Kalecki or the neo-Wicksellians (although Woodford, 2003, the repository of *New Keynesian Economics* is often referred to as a neo Wicksellian 'manifesto' of modern macroeconomics (cf, Hoover, 2006). We believe it is a case of *déjà vu*, in the sense that the Neoclassical Synthesis is alive and well as the *New Neoclassical Synthesis* (Goodfriend & King)).
[16] Although this may well be due to the entirely justifiable reason that in this period Kalecki's works were dominated by developing theories of aggregate fluctuations in seemingly *non-monetary* economies.

geldtheoretischen Analyse, in Hayek, 1933[17]), but even more importantly of Hicks' review in **Economica** (Hicks, 1934). This resulted in Adarkar's slightly confused critique of Wicksell and seemed to have influenced also his otherwise critically justified exposition of Hayek's Wicksellian claims. Both the reviews by Karve (1936) and Barger (1936) make this point, in their otherwise laudatory summary of the achievements of Adarkar (1935)[18].

The entirely warm and appreciative analysis of Sraffa's thesis on the *Own Rates of Interest*, developed first in his celebrated dissection of Hayek's **Prices and Prduction** (Sraffa, 1932), is one of the finest introduction to that great Italo-Cambridge economic theorist's precise work in what eventually was encapsulated in Sraffa (1960). In many ways Adarkar's chapter VII, in Adarkar (1935), is an independently superb introduction to the notion of the Own Rate of Interest, especially in the way it is contrasted with *Fisher's Real Rate Doctrine* (Adarkar, 1934). Adarkar cannot be blamed that he was not aware that Sraffa had already – indeed, as early as the late 1920s – devised the concepts of the *Standard Commodity* and the *Standard Ratio*. As a result some of Adarkar's critical observations – or, perhaps, doubts regarding Sraffa's claims – were not quite correct.

On the other hand, it remains a mystery that Adarkar did not rely more on Fisher's critique of Böhm-Bawerk's notion of a period of production and the third ground he had formulated for the existence of a positive rate of interest. What later came to be called the Truncation Theorem, which became the basis for Hicks' development of a Neo-Austrian Capital Theory can be found in recognizable embryo form in Fisher (1907[19], especially chapter 4 and the related apendices).

[17] Mrs. Gerturde Lindahl, Erik Lindahl's charming second wife, informed the first author, in personal conversations in 1983, at her home in Lund, that Hayek had initially contracted with Lindahl for a chapter for the volume he was editing. However, Lindahl could not meet Hayek's deadline and was persuaded – reluctantly - by the Swede to include a translation of Myrdal (1931). Thus came into being *ex ante* and *ex post*!

[18] The critique, especially by Barger, is a specialized version of the more general – still sympathetic – critical observation by Owen Meredith (1931), on the lack of a Capital Theoretic basis for Cambridge Monetary Theory. One had to wait a full thirty years before Sraffa suggested a monetary theoretic foundation for capital theory (Sraffa, 1960, p. 39).

[19] Velupillai was once the proud owner of Wicksell's personal, penciled, copy of Fisher (1907), which had been presented by the author to the great Swede, with a penned dedication! The particular part where Fisher constructs an example to refute the general validity of Böhm-Bawerk's third ground, has the margin remark by Wicksell: '*sabla jox*'!

Knowing this, coupled to what became one important aspect of Sraffa's critique of 'the period of production' (Sraffa, 1960, pp. 44-45), may have diffused some of the sympathetic criticisms in the reviews of Karve and Barger.

There is, finally, *Gibson's Paradox* (Adarkar, 1935, chapter XV). We believe Adarkar had an unerring intuition for considering issues that were going to be perennially unresolved, in the sense that new wine was regularly filling old bottles and inspiring the thoughtful researcher at the frontiers of monetary macroeconomics. This ability coupled to the fact that he had an absolute mastery Keynes' *Treatise*, meant that it was inevitable – in a book with the subtitle, *With Special Reference to the Relation between Interest Rates and Prices* – Gibson's Paradox would at least be mentioned. That Keynes referred to it as (Keynes, 1930, Vol. II, p. 198; italics added) 'one of the most completely established *empirical facts* in the whole field of *quantitative economics*' would have acted as a magnet to Adarkar, who would have wanted to find a solid, enduring, theoretical explanation for it. Despite the dominance of the exact logic of theory in Adarkar's work, it has always been in the service of policy, often monetary policy. That an exact logical theory to underpin Gibson's Paradox, even at the frontiers of quantitative macroeconomics today, is a testimony to Adarkar's unfailing intuition to 'home in' on the relevant empirical facts that need to be encapsulated in an economic theory, not just an *ad hoc* mathematical framework.

Adarkar's most enduring contributions, as a critique of orthodox monetary theory and the theory of monetary policy, that have survived every test of time, is in his sustained and merciless critique of Hayek (Adarkar, 1937a, Adarkar, 1935, chapter VI) and his cogent skepticism and irrelevance of any notion of a barter economy as a norm from which active monetary policy rules can be devised (chapter XI, *ibid*). These three contributions, together, form a coherent critique of the frontiers of monetary theory and the theory of monetary policy – of the futility of any theoretical basis for the notion of money neutrality; of the irrelevancy of any framework for a monetary production economy where Say's Law is rejected; and, finally, the impossibility of deriving any kind of monetary policy rule on the basis of the classical dichotomy.

In the end, his studies and mastery of Wicksell and Keynes, with whatever lacunae that may be involved, are the sources for the enduring relevance of the contributions of the *golden seven years*.

If we are to summarise, in one proposition, the important lesson to be learned from a study of Adarkar's contributions in the *golden seven years*, then it is that *a monetary equilibrium* - despite its dubious Wicksellian underpinnings – in a neutral money economy, subject to the classical dichotomy cannot imply any cogent monetary policy rule for a monetary production economy, especially one which relies on any notion of a period of production to provide capital theoretic foundations.

This may appear to be a negative conclusion; however there are positive aspects to any serious, analytically derived, negative conclusion. We have not, entirely due to space considerations, derived – explicitly – these positive aspects, in this essay; it will be the subject matter of a sequel to this one.

§ 3. Brief Concluding Notes

> "[I]ndeed, [Keynes's *General Theory*] is one of the greatest of modern economic works, a fitting companion to Adam Smith's *Wealth of Nations*[20], Ricardo's *Principles of Political Economy*, Marshall's *Principles* and Pigou's *Economics of Welfare*[21] – akin to these and yet dissimilar, inasmuch as its main theses, if they are finally accepted by *economic logicians*, bid fair to *revolutionise*[22] *the entire fabric of modern economic theory and practice and, withal, sweep away at one stroke much that is prosaic, artificial, vague and irrelevant in economic writing*."
> Adarkar, 1937b, p. 229; italics added.

Adarkar opening sentence in the above review of the ***GT*** is (italics added):

[20] Thus writes the *Adam Smith Prize* winner of 1933 (see **Nature**, Vol. 132, p. 977, 23 December), a member of an honour roll of distinguished Indian economists who were recipients of the same prize, including, among others, Amartya Sen (1954) and Manmohan Singh (1956).

[21] Adarkar should, surely, have added Petty's *Political Arithmetick*, *An Essay on the Principles of Population* by Malthus, Mill's *Principles of Political Economy*, *The Theory of Political Economy* by Jevons and, perhaps, also Edgeworth's *Mathematical Psychics*, to these *five pillars* of contributions to variations on the theme of English (although Smith, as a *Scotsman*, may be a dubious inclusion, here!) *Classical Political Economy*. These classics of English Political Economy could be considered the *Ten Pillars of Economic Wisdom* (no remembrances of the five pillars of Islam, the *ten pillars of Buddhism*, or even the more modern – dare we say, trivial, paean to free enterprise – Nassau Institute's *ten pillars of economic wisdom*).

[22] See Keynes' letter to Bernard Shaw (Keynes, 1935).

> "A reviewer's function is ordinarily threefold: to *describe*, to *appreciate* and to *criticise*."

I hope we have judiciously combined these three desiderata in 'reviewing' Adarkar's enduring contributions to monetary theory and the theory of monetary policy. We are convinced that a non-orthodox, advanced, critical lecture course on monetary theory and the theory of economic policy can – and should – be based on the seven classics by Adarkar contributed during his *golden seven years*.

The one element missing in the contributions by Adarkar during the *golden seven years* is any consistent statement of the *fallacy of composition*. We felt that Adarkar often slipped into unsubstantiated claims on a transition from the individual to the market – whether it be of the thorny, but strictly personal, concept of anticipations, in many variations, or of (excess) demand and supply functions. This may well be our main criticism of Adarkar's impressive work in these *golden seven years*.

All the rest of our criticisms are easily rectifiable, analytically, conceptually and even mathematically. For now, this must remain a conjecture, but made in all seriousness.

In his masterly critique of Hayek's uncompromisingly orthodox approach to an active nihilism – is this a paradoxical statement, akin to the ***sound*** *of one hand clapping*? – Adarkar observed (p. 265; italics added):

> "Recently a writer[23] has quite optimistically suggested that the clash between rival theories of a Tweedledum-and-Tweedledee *sham fight* attributable to the sheer ineradicable pugnacity even of academical economists."

With Adarkar, we do not believe that the 'clash between rival theories' is a 'sham fight'. We subscribe to the view that the claims of orthodoxy, often camouflaged in irrelevant and *sham* mathematics, have to be exposed for what they are: empty of analytical content, tinged with ideological undertones, and pronounced with false exactness.

[23] The reference is to Macfie (1934).

Three notions, based on the tripod of *preferences*, *endowments* and *technology*, underpin the complacent analytical claims of orthodox economics: *equilibrium*, *stability* and *optimality*. Adarkar uses these concepts, in the context of monetary production economy, without any underpinnings in the 'tripod'. Perhaps this is his implicit statement of the fallacy of composition. If so, our task, along the untrodden path broached by Adarkar, is to make explicit the irrelevance of the 'tripod' for a macroeconomics of the monetary production economy.

If we succeed in taking even a few steps in this direction, then it is our considered view that the rest of the path will be laid out in terms of a possible synthesis of the visions of Wicksell, Keynes – and Sraffa.

References

Adarkar, Bhalchandra Pundlik (1932), *Mr. Keynes and the Canonists (i)*, in: *Saving and Usury: A* Symposium (with contributions by: B.P. Adarkar, B. K. Sandwell, J. M. Keynes and K. E. Boulding), **The Economic Journal**, Vol. 42 , March, pp. 123-141.

Adarkar, Bhalchandra Pundlik (1933), *The 'Fundamental Error' in Keynes's Treatise*, **The American Economic Review**, Vol. 23, March, p. 87.

Adarkar, Bhalchandra Pundlik (1934), *Fisher's Real Rate Doctrine*, **The Economic Journal**, Vol. 44, June, pp. 337-342.

Adarkar, Bhalchandra Pundlik (1935), **The Theory of Monetary Policy: With Special Reference to the Relation Between Interest Rates and Prices**, P. S. King & Son, Ltd., London.

Adarkar, Bhalchandra Pundlik (1936), *The Price-Level in a Progressive State*, **Indian Journal of Economics**, Vol. XVII, Issue 1, pp. 89-100.

Adarkar, Bhalchandra Pundlik (1937a), *Professor Hayek's Neutral Money Doctrine*, **Indian Journal of Economics**, Vol. XVIII, Issue 1, January, pp. 265-292.

Adarkar, Bhalchandra Pundlik (1937b), *Review* [of **The General Theory of Employment, Interest and Money** by John Maynard Keynes], **Indian Journal of Economics**, Vol. XVIII, Issue 1, pp. 229-233.

Adarkar, Bhalchandra Pundlik (1941), **The Indian Fiscal Policy**, Kitabistan, Allahabad.

Adarkar, Bhalchandra Pundlik (1946), *Lord Keynes of Tilton – A Tribute*, **The Eastern Economist**, 10 May, pp. 779-781.

Adarkar, Bhalchandra Pundlik & D. Ghosh (1941), *Mr. Keynes's Theory of Interest*, **Indian Journal of Economics**, Vol. XXII, Issue 2, pp. 285-300.

Adarkar, Bhalchandra Pundlik & S. N. Sen Gupta (1936), *The Pareto Law and the Distribution of Incomes in India*, **The Economic Journal, Vol. 46, March, pp. 168-171.**

Barger, Harold (1936), *Review* [of The Theory of Monetary Policy by B. P. Adarkar], **The Economic Journal**, Vol. 46, September, pp. 502-503.

Champernowne, David. G (1973), **The Distribution of Income between Persons**, Cambridge University Press, Cambridge.

Chandavarkar, Anand. G (1988), *B.P. Adarkar and Keynes: The Ganges and the Cam*, **Economic and Political Weekly**, Vol. XXIII, No. 43, Oct., 22, pp. 2207-2208.

Chandavarkar, Anand. G (1989), **Keynes and India: A Study in Economics and Biography**, The Macmillan Press, Ltd., Houndmills, Basingstoke, UK.

Coats, A. W. Bob (1993), **The Sociology and Professionalization of Economics: British and American Essays, Volume II**, Routledge, London.

Dulles, Eleanor Lansing (1936), *Review* [of **The Theory of Monetary Policy** by Adarkar], the **Journal of the American Statistical Association**, Vol. 31, September, pp. 633-635.

Durbin, E. F. M (1935), **The Problem of Credit Policy**, Chapman & Hall, Ltd., London.

Eshag, Eprime (1963), **From Marshall to Keynes: An Essay on the Monetary Theory of the Cambridge School**, Basil Blackwell, Oxford.

Fisher, Irving (1907), **The Rate of Interest: Its Nature, Determination and Relation to Economic Phenomena**, The Macmillan Company, New York.

Goodfriend, Marvin & Robert King (1997), *The New Neoclassical Synthesis and the Role of Monetary Policy*, **NBER Macroeconomics Annual 1997**, Vol. 12, January, pp. 231- 296.

Haberler, Gottfried (1937), **Prosperity and Depression: A Theoretical Analysis of Cyclical Movements**, League of Nations, Geneva.

Hansen, Bent (1951), **A Study in the Theory of Inflation**, Rinehart & Co., New York.

Hansen, Bent (1983), *Letter to Velupillai*, 2nd January.

Harrod, Roy F (1936), **The Trade Cycle: An Essay**, Oxford University Press, Oxford.

Hayek, F. A (1931), **Prices and Production**, Routledge & Sons., London.

Hayek, F. A. von (1933; editor), **Beiträge zur Geldtheorie**, Springer-Verlag, Wien.

Hicks, John. R & J. C. Gilbert (1934), *Review* (of **Beiträge zur Geldtheorie** ed. By F. A. von Hayek), **Economica, n.s.,** Vol. 1, No. 4, November, pp. 479-486.

Hoover, Kevin. D(1956), *A Neowicksellian in a New Classical World: The Methodology of Michael Woodford's* ***Interest and Prices***, **Journal of the History of Economic Thought**, Vol. 28, Number 2, June, pp. 143-149.

Hughes, Patrick & John Slyce (1998), **Perverspective**, Momentum, London.

Karve, D. G (1936), *Review* [of **The Theory of Monetary Policy** by B. P. Adarkar], **Indian Journal of Economics**, Vol. XVII, Issue 1, pp. 110-112.

Keynes, John Maynard (1930), **A Treatise on Money, Volumes I & II**, Macmillan and Company, Limited, London.

Keynes, John Maynard (1935), *Letter to Bernard Shaw*, *1 January, 1935*, pp. 492-3, in: **The Collected Writings** ***of*** **John Maynard Keynes, Vol. XIII,** ***The General Theory and After: Part 1, Preparation***, Cambridge University Press for the Royal Economic Society, Cambridge.

Keynes, John Maynard (1936), **The General Theory of Employment, Interest and Money**, Macmillan And Co., Limited, London.

Khatkhate, Deena (1988), *Obituary – An Economist Whose Present Was in the Past*, **Economic and Political Weekly**, Vol. XXIII, No. 41, Oct., 08, pp. 2093-2094.

Krishnamurty, J (2011), **Toward Development Economics: Indian Contributions 1900 – 1945**, Oxford University Press, India.

Lawlor, Michael. S (2006), **The Economics of Keynes in Historical Context: An Intellectual History of the General Theory**, Palgrave-Macmillan, **Houndmills, Basingstoke.**

Leijonhufvud, Axel (1968), **On Keynesian Economics and the Economics of Keynes: A Study in Monetary Theory**, Oxford University Press, New York.

Lindahl, Erik (1929), **Penningpolitikens Mål**, C. W. K. Gleerup, Lund.

Lindahl, Erik (1929), **Penningpolitikens Medel**, C. W. K. Gleerup, Lund.

Lokanathan, P. S (1938), *Mr. Harrod on the Trade Cycle*, **Indian Journal of Economics**, April, pp. 515-521.

Lucas, Robert. E. Jr., Lucas, Robert. E. Jr., (1996), *Nobel Lecture: Money Neutrality*, **The Journal of Political Economy**, Vol. 104, No. 4, August, pp. 661-682.

Lundberg, Erik Filip (1937), **Studies in the Theory of Economic Expansion, Kungliga Boktryckeriet, P. A. Norstedt & Söner, Stockholm.**

Lundberg, Erik Filip (1996), **The Development of Swedish and Keynesian Macroeconomic Theory and its Impact on Economic Policy**, Cambridge University Press, Cambridge.

Macfie, Alec. L (1934), **Theories of the Trade Cycle**, Macmillan, London.

Meredith, H. Owen (1931), *Letters to Keynes, 22 November & 8 December*, in: **The Collected Writings *of* John Maynard Keynes, Vol. XIII, *The General Theory and After: Part 1, Preparation***, pp. 267-8, Cambridge University Press for the Royal Economic Society, Cambridge.

Myrdal, Gunnar (1931), *Om penningteoretisk jämvikt. En studie över den "normala räntan" i Wicksells penninglära*, **Ekonomisk Tidskrift**, Å rg. 33, häft 5/6, pp. 191-302.

Myrdal, Gunnar (1939), **Monetary Equilibrium**, William Hodge, London.

Patinkin, Don (1965; 1956; 1989), **Money, Interest, and Prices: An Integration of Monetary and Value Theory** (Second Edition – First Edition, 1956, Abridged Edition, 1989), Harper & Row, New York, NY.

Pigou, Arthur Cecil (1932), **The Economics of Welfare** (Fourth Edition), Macmillan And Co., Limited, London.

Robinson, Joan (1939), *Review* [of **Monetary Equilibrium** by Gunnar Myrdal], **The Economic Journal**, Vol. 49, September, pp. 493-495.

Shackle, George. E. L (1967), **The Years of High Theory: Invention & Tradition in Economic Thought, 1926 – 1939**, Cambridge University Press, Cambridge.

Shirras, G. Findlay (1935), *The Pareto Law and the Distribution of Income*, **The Economic Journal**, Vol. 45, December, pp. 663-681.

Sraffa, Piero (1932), *Dr. Hayek on Money and Capital*, **The Economic Journal**, Vol. 42, March, pp. 42-53.

Sraffa, Piero (1960), **Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory**, Cambridge University Press, Cambridge.

Tappan Hollond, Marjorie (1936), *Review* [of **Principles and Problems of Federal Finance**], **The Economic Journal**, Vol. 46, March, pp. 113-115.

Tharp, Lawrence (1970), *Columbia Radicals Fight for their Academic Freedom*, **U.R.P.E Newsletter**, Vol. 2, No. 4, December.

Thomas, Brinley (1936), **Monetary Policy and Crises: A Study of Swedish Experience**, George Routledge and Sons, Ltd., London.

Thornton, Henry (1802), **An Enquiry into the Nature and Effects of the Paper Credit of Great Britain**, J. Hatchard, Piccadilly and Messers F. & C. Rivington, St. Paul's Churchyard, London.

Woodford, Michael (2003), **Interest and Prices: Foundations of a Theory of Monetary Policy**, Princeton University Press, Princeton, NJ.

Wicksell, Knut (1898), **Geldzins und Güterpreise -** *Eine Studie über die den Tauschwert des Geldes bestimmenden Ursachen*, Gustav Fischer, Jena.