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*The Economics of Keynes in Intellectual Context: An
Intellectual History of the General Theory*

Two quotations establish a theme that I consistently stress throughout my book and which I would like to emphasize today.

The first will be familiar to you, as it often quoted, and comes from Keynes's *Essays in Biography* of 1933. In speaking of the value to the economist, and indeed to any contemporary analyst of an older text, Keynes makes the famous claim that:

A study of the history of opinion is a necessary preliminary to the emancipation of the mind.

J. M. Keynes (CW 9)

I believe that this maxim applies with particular force to the understanding of Keynes's own ideas. One big theme of my book is that the *General Theory* appears in an altered light, considered in contrast to many modern interpretation of it, when it is viewed within its own historical context. And that viewing it in this context can indeed "emancipate" one's view of that book.

The second is a quotation from Joan Robinson, Keynes's close associate, pre-publication critic, and perhaps we should say co-investigator, of the complex interrelations of "employment, interest and money" as they were to be treated in the eventual *General Theory*. Looking back in 1962 upon the post-War development of macroeconomics, she took the opportunity of a review of Harry Johnson's *Money, Trade and Economic Growth* to stress her view that macroeconomics had gone wrong in following out Keynes work along strictly Walrasian lines, instead of what she thought

was the more fruitful and historically accurate lines Marshallian economics.

Professor Johnson reproaches Keynes for the influence that Marshall had upon him, for he does not appreciate Marshall's good points.

Marshall inherited from Ricardo two qualities which are lacking in the branch of the neoclassical school that derives from Walras. He had (though confusedly) a sense of time. The short period is here and now, with concrete stocks of means of production in existence.

Incompatibilities in the situation – in particular between the capacity of equipment and expected demand for output – will determine what happens next. Long period equilibrium is not at some date in the future; it is an imaginary state of affairs in which there are no incompatibilities with the existing situation, here and now. Secondly, Marshall had a sense of the structure of society. His world is peopled with types (though idealized in a way that nowadays sometimes seems comical) who have different parts to play – the business-man, the worker, the householder – each with his own characteristic motives and problems.

Joan Robinson (1962)

Accordingly, what I wish to emphasize in the short time that I have been allotted today, is the crucial importance for a historical understanding of Keynes's *General Theory* of an awareness and documentation of the tremendous influence left on Keynes left by the legacy of Alfred Marshall's economics.

I return to this theme many times in my book. In Part I this concerns labor market analysis in the Marshallian mode. In Part II this concerns financial market analysis and speculation. Finally in Part III I am concerned to show the influence of Marshall on how Keynes viewed the interaction between employment, interest and money.

Today I have time only to briefly characterize one aspect of Marshall's ideas on Keynes's work, and I have chosen a theme treated in Part II of the book titled, "A Philosopher and a Speculator."

The theme I want to emphasize is the transition that took place between Marshall's early and late views on the form and function of industrial organization and thereby the influence of speculation on the competitive process. And I want to particularly emphasize the unsettled state he left this issue in both his published and unpublished writings.

I should also preface this by saying that this whole part of the book involves extensive side trips into Keynes philosophy, his notes for courses taught before World War I on the "Stock Exchange" and "Company Finance," as well as Keynes's extensive dependence on H. C. Emery, an early American analyst of organized speculation of commodities and stocks. Thus what I will say here today should not be taken as the whole of the historical context treated in this part of the book.

I title this part of my book which I will treat:

II. Two Problems in later Marshallian Economics: The “representative firm” and the joint-stock company

Marshall's *Principles of Economics* presented a complex structural account of the motivations and interactions of “types” of actors that he saw as typical of the English economic scene of the latter half of the 19th century. Through what he viewed as a properly realistic and analytic account of these actors he constructed a picture of a complicated but inevitable move from short period states to long period equilibrium. He felt confident that this picture justified the concentration in the *Principles* upon long period states of the economy, characterized by the assumption that they had been achieved and would be expected to continue.

This emphasis on the tranquility and social benefit of the outcome of the process of competition was exemplified by his theoretical “device” of the representative firm and by his empirical belief that

industries were dominated by family firms, as indeed they still were in England as late as 1890, when the first edition of the *Principles* was released.

I note in my book, in my discussion of efficiency wage theory, that Marshall's *Principles of Economics* was fraught with tension between the dynamic economy it hoped to capture and the static framework by which it proposed to do so. Indeed, despite the tranquility that Marshall tried so hard to present as economics' public face, it was shown there that Marshall was well aware of the contradictions that thus might arise between his organon and the reality he sought to capture - through his Organon's "calm and coolheaded" use. This tension implicitly points to the later monetary work of John Maynard Keynes – and they are both instances in which in which "facts" outran Marshall's theory.

The first issue is that which has in recent scholarship (Hart, 1991, Thomas, 1991) been given a formal name as Marshall's "reconciliation problem." This is a modern term to refer to

Marshall's well-known early dissatisfaction with Cournot's treatment of increasing returns. Cournot (1838) held the view that if increasing returns for a firm were large, and occurred over an extensive range of output compared to that of the industry, that they would inevitably lead to monopolization of that industry by the largest firm. Marshall found Cournot's mathematics impeccable. He distrusted, though, their application to the firm-level British scene in 1870 and 1880, even as he believed strongly in the historical power of increasing returns to lower costs and increase standards of living. Thus he had to find a way to "reconcile" his observations of industrial structure with Cournot's analysis and to show how increasing returns could be made compatible with competition. Moreover, lest we discount Marshall's often noted tendency to spend his vacations visiting factory sites as a Victorian eccentricity alone, this compatibility problem was one of those "facts" brought home to him by his travels.

This point, and what he arrived at as its solution in the *Principles*, is highlighted in an interesting letter Marshall wrote to A. W. Flux in 1898 (Pigou, 1925, p. 407):

My confidence in Cournot as an economist was shaken when I found that his mathematics re I. R. led inevitably to things which do not exist and have no near relation to reality. One of the chief purposes of my Wander-jahre among factories, etc., was to discover how Cournot's premises were wrong. The chief outcome of my work in this direction, which occupied me a good deal between 1870 and 1890, is in the 'Representative firm' theory...As well as the parts that directly relate to the supply price for IR.

This letter is cited by Neil Hart (2003, p. 165) in an interesting article where he argues that, as far as theory of the interaction of firm and industry, "Marshall was not a Marshallian." Hart explains that Marshall's first attempt at resolving the reconciliation problem

was intended as an example of a biological, as opposed to a mechanical, analogy (“...the young trees of the forest “ etc..). It ran in terms that biologically limited any given firm’s expansion by the natural life span of its founders. Since they inevitably did not live long enough to convert the technological advantages of increasing returns to the domination of a whole industry, Marshall surmised, younger firms could spring up to compete with them and utilize the advantages of increasing returns themselves. Thus the life cycle of firms (“ the trees”) was more ephemeral than, and was superseded by, the life of the industry (“the forest”). No one firm could easily come to dominate.

This doctrine eventually set-off a controversy that was played out in the 1920’s and 1930’s, much of it on the pages of Keynes’s *Economic Journal*. Although Clapham (1922) had early on questioned the explanatory power of this doctrine, more serious questioning seems to have begun with the penetrating analysis of Piero Sraffa (1926). Sraffa showed that the conditions under

which variable returns are compatible with competition in the Marshallian framework were so restrictive as to be inapplicable to actual industry conditions. Here, as we had seen before in the first part of the book in the case of Marshallian wage theory, we again we see that the authority of Pigou (1928) was exerted to sterilize Marshallian economics of any inherent contradiction – this time by the construction of the equilibrium firm, a mechanical contrivance that propped up the logical structure but not the empirical relevance of the theory. The impasse he created led to a “Symposium on the Representative Firm” in the *Economic Journal* in 1930, at a time when the questioning of Marshall *Principles of Economics* was becoming a central concern of Cambridge economics. Contributions were made by Gerald Shove (1930), Dennis Robertson (1930) and Sraffa (1930).

It is not our point to dwell on the details of the symposium, rather we wish to highlight that it serves as a marker to the tenor of the times at Cambridge, just as Keynes was formulating the *General*

Theory. Especially important is that each of these men was a close and respected associate of Keynes. The critique of Marshall's theory of the firm by young Turks like Sraffa and Joan Robinson (see Robinson 1933 for example), in addition to the almost simultaneous deconstruction of Keynes's *Treatise* by the overlapping Cambridge Circus (see Patinkin and Leith, 1978) was both fundamental and wide ranging. No wonder then that activity, like Keynes's later critique of "the classicals," was also so heavily resisted by more "orthodox" Marshallians like Shove, Robertson and Pigou. Perhaps Sraffa's reply to Robertson in the symposium best sums up the critical attitude then prevalent in Cambridge:

I am trying to find what are the assumptions implicit in Marshall's theory; if Mr. Robertson regards them as extremely unreal, I sympathize with him. We seem to be agreed that the theory cannot be interpreted in a way which makes it logically self-consistent and, at the same time, reconciles it with the facts it sets out to explain. Mr.

Robertson's remedy is to discard mathematics, and he suggests that my method is to discard the facts; perhaps I ought to have explained that, in the circumstances, I think it is Marshall's theory that should be discarded. (Sraffa, 1930b, p. 93)

This leads us to the second, and related, of the two problems mentioned above as then being encountered by Marshallian economics. It is one that the wise but wily Marshall, at least implicitly, faced in his own writings. Indeed, one might say, that the logic of Sraffa's statement above had been known to Marshall as far back as 1907, at least by 1919, if we take Sraffa's "I think it is Marshall's theory that should be abandoned," to mean abandoning sole reliance on the *Principles*ⁱ. Exact dating depends on when one judges Marshall to have begun on his fabled "second volume" of the *Principles*. This task, which eventually consumed his entire remaining life after 1890, when he wasn't revising the *Principles* that is, eventually evolved into the book, *Industry and*

Trade, published in 1919. One Marshall scholar (Whitaker, 2003, p. 145-7) dates this to 1907 when the 5th edition of the *Principles* appeared with an interesting new preface that both relabeled the *Principles* as volume 1 of a projected 2 volume work, and that described the contents of the *Principles* more modestly than formerly - as the “foundations” of the subject, necessarily to be followed up by a second volume devoted to dynamics, trusts and “recent changes in the character and functions of giant business and of combinations” (Marshall, 9th Variorum ed, C. Guillebaud, ed., vol. II, 1961, p. 46). As I show in a succeeding chapter, where we cover a remarkable “unpublished” essay of Marshall’s from 1899, we would put Marshall’s interest in the deficiencies of the *Principles* even further back.

But dating is not the important matter. More important, for the theme developed here, is a brief quotation from this preface to the 5th edition of the *Principles*, where Marshall inserted the following phrase (Marshall, 1961, p. 47, emphasis added):

“But *normal* action falls into the background when Trusts are striving for the mastery of a large market; when communities of interest are being made and unmade.”

I try to show in the book that the validity of the assumption adopted in the *Principles* that financial market values were governed by gravitation towards the long-run normal values of a “real” analysis, and that it was therefore acceptable as a *ceteris paribus* condition to assume that that gravitation had occurred, was exactly what concerned the later Marshall. Moreover, what form financial market analysis would take once this point was admitted to be in question, is one way to characterize Keynes’ later monetary work.

Today, though, we must complete our story of the crisis in later Marshallian economics. Why, as the economy matured, did the “organon” alone no longer suffice as the sole tool of reasoning that

would provide for “cool heads” to go out into the economy and “factually” analyze social problems, as Marshall had originally envisioned? The growing “fact” that had eaten away at the framework of the *Principles*, that years of rearguard action could no longer assimilate (see Whitaker, 2003, pp. 145-147), and which spawned the corrective changes of 1907 and the plan for a new volume, was the rise of the modern joint-stock company, or in more modern parlance the large public corporation. Since Marshall’s representative firm depended on the biological analogy of the limited life-span of the founders of private firms, without this argument for the reconciliation of “Cournot’s problem” the rise to dominance in most industries of the infinitely lived corporation meant a vast reordering of economics as the *Principles* had depicted it.

Among the issues which had been put aside from consideration in the *Principles*, and which this “fact” called for facing head on were the following. The corporation in such conditions, because it

would not die with its founders, might be able to fully exploit increasing returns and monopolize an industry. Moreover there was thus the greater incentive for the corporation and a potential role for a activist state to “train” business expertise across generations, and so the supply of such expertise became critical to how well nations would prosper economically. Firms that could get as large as natural production returns allowed might now engage in a kind of strategic competition that was outside the “normal” operations of small scale firms. Markets and institutions would arise to service the special financial needs of large business, such as the money and capital markets, the produce and stock exchanges, and investment banks. Specialized information concerning the interests and operations of these institutions would earn valuable returns. This might also set up many dangers. At the industry level, would the potentially unlimited access to, as Marshall put it, “the money and credit market,” allow corporations the means to profitably engage in socially destructive behaviors, limit competition and drive out smaller competitors with smaller

financial resources, and to form socially harmful “trusts”? In a similar vein, what were the social welfare implications of the new and more effective tools of marketing and advertising that such large firms had called into existence?

Post-Marshallian as these topics may appear, this list was constructed from those treated in Marshall’s last constructive publication, *Industry and Trade* (1919).ⁱⁱ

I also take these topics to be a large part of what later Marshallianism concerned itself with, when considered as a program of research. It would be difficult to date the era of such interests in Cambridge economics precisely, but it was certainly in full swing by the 1920s and 1930s, when Keynes was busy with his reformulation of Marshallian monetary economics and his construction of a short-period macroeconomics. There is ample evidence that many variants of “Marshallian” lines of investigation were included under this large tent. These would include for

example Sraffa's (1926, 1930) foundational questioning of the framework of competition in the *Principles*. But it would also include Pigou's (1920) analysis of the incidence and social function of production externalities, as well as his more mechanical attempts to shore up the Marshallian depiction of the competitive firm (Pigou, 1927b) and of supply (Pigou, 1928). It is useful to recall in this context the large credit Joan Robinson gives to both Sraffa and Pigou, as well as to Gerald Shove and Richard Kahnⁱⁱⁱ, for influencing her thoughts in the influential *The Economics of Imperfect Competition* (1933)^{iv} at this time.

Thus secondly, and closely related to the theoretical "static-dynamic" crisis of Marshallian economics noted above, was the factual crisis engendered by the *Principle's* inability to handle an increasingly undeniable feature of modern economies after 1890, the corporate form of organization and governance of business. The argument here is that neither of these issues was lost on John Maynard Keynes.

But finally we must further stop to note that Marshall himself, though characteristically arguing for as much continuity as possible (at least publicly), himself seems to have noted the growing problems involved for his theory, and to have tried to address it. Moreover, when he did turn to this problem in writing, in *Industry and Trade* (1919)^v, he showed that these issues required even more attention to the evolutionary aspects of modern economic organization, and less static analysis, that had been suggested in the *Principles*. Furthermore, this is so despite what his more devout followers were led to in the creation of mechanical analogies like Pigou's "equilibrium firm," and also despite what some of his more severe critics like Sraffa may have thought about the unreality of Marshallianism^{vi}.

John Whitaker's (2003) excellent article on "Marshall and the Joint Stock Company," is the single most compact analysis of this issue in the literature. It should be consulted by readers interested in the details. What we take from his discussion and the related article which follows it by Neil Hart (2003) is that the

unstated premise of Marshall's last constructive book was that a "realistic" understanding of industry required something very different from just the largely a priori hypothetical deductions of the *Principles*. Instead, Marshall felt compelled to devote a third of his space (Book I) to a comparative historical account of how the industry of various nations had developed. In the process he proved that his motto from the preface (Marshall 1919, p. v., italics in original), "*The many in the one, the one in the many,*" was not just idle sloganeering. He meant to show that knowledge of cultural antecedents and the process of social evolution in the instances of the industrial development of England, Germany and America, were both crucial to understanding their different economic structures, and yet contained common messages. In fact, his comments from the first chapter of book I on this viewpoint read like they could easily have been written by an American Institutionalists of that period. For example (Marshall 1919, p. 6):

...But the past lives on for ages after it has been lost from memory: and the most progressive peoples retain much of the

substance of earlier habits of associated action in industry and in trade; even when the forms of those habits have been so changed under new conditions, that they are no longer represented by their old names.

This attitude bears fruit in *Industry and Trade*, as his encyclopedic knowledge of the details of particular industries is married to both his vast historical knowledge and his implicit search for theoretical structures with which to explain the form and social effect of increasing returns, large units in industry and world wide trade.

Thus he was implicitly showing the value for economic analysis of historical antecedents, of how technology had in the past interacted with social institutions. He also suggested that this reciprocal interaction was likely to evolve new economic problems even as it solved old ones. Whitaker (2003, p. 139), goes even further, when he explains that this discussion implied even more than Marshall was willing to admit about the shortcoming of his *Principles*:

The *Principles* clung to an increasingly implausible life-cycle theory of the representative firm because it played a crucial role in that work's focus on analyzing long-period equilibrium. *Industry and Trade*, displaying a more evolutionary methodology, found no need for it and tacitly abandoned it while maintaining a veneer of consistency.

This is the clue to how Marshall saw the pursuit of the questions noted above, and the way forward for a “realistic” Marshallian economics. In modern industry and trade, competition was struggle between large firms and small, using and possibly advancing technological change, constantly in the process altering the very grounds upon which competition took place. Long-period equilibrium analysis was particularly unsuited to investigate such dynamic social change. Yet it could not be said that Marshall was willing to admit that these long-period positions might not eventually reassert themselves even on such an evolutionary process. Whitaker detects ambivalence on Marshall's part about

what was left of the *Principles* after the admission of the prevalence and growing size of joint-stock companies. His link of this to the issue of long-period analysis is what we wish to stress (Whittaker, 2003, p. 150):

This [internal economies] opens a significant gap between the *Principles* and *Industry and Trade*, but a much larger one must now be noticed....The dominant method of the *Principles* is the analysis of long-period equilibrium situations, considered against a background hypothetically held constant by use of the *ceteris paribus* clause....*Industry and Trade* adopts, if quite implicitly, a quite different methodology, reflecting a more evolutionary mode of thought.

To put this problem in terms useful for interpreting Keynes development towards the *General Theory* requires bringing this theme to bear on areas not treated in *Industry and Trade*, although

feebly addressed in the last abortive Marshallian effort, *Money, Credit and Commerce* (1922). They are the supply and demand aspects of financial markets, and the economic functions and influence of trading opportunities on organized exchanges for produce, credit and equities. As I document in the book there is more interest displayed in un-published Marshalliana in this area than there is in *Industry and Trade*. Marshall's biographer Groenewegen gives a full account of the reasons for this. Essentially Marshall ran out of the time and energy necessary to complete this task. But another reason, hinted at by both Groenewegen's account and the work of Whitaker, is that remaking the *Principles* in this direction involved perhaps too large a leap of theoretical imagination for the systematic and cautious Marshall. Keynes was not so inhibited, I argue in my book.

Thus we have before us a clear starting point for analyzing Keynes's own personal Marshallian evolution. It was moved, like all Cambridge work in the 1920s and 1930, by the need to drive the

Marshallian method into new fields and to answer new questions. Factually it was concerned with areas of theoretical and practical interest to Keynes; the operation of the money and credit markets and the function and role of speculation. Theoretically it required a structure, or engine of analysis, that could accommodate dynamic change – in money, credit, expectations, the state of the news – while still being open to the later Marshall’s more evolutionary sensitivities. Moreover it was apparent that this might involve a reorientation of analysis away from Marshall’s focus on long-period equilibrium positions. But toward what? That story is a twisting one that concerns the long development of these issues from the early Marshall to Keynes of the *General Theory*. I trace that development other chapters of the book that I have written on “Keynes’s *General Theory* in Historical Context.” I encourage you to consult it for further details.

ⁱ I am not suggesting that Marshall's and Sraffa's ideas about the proper theoretical treatment of the firm and industry were the same. Sraffa had a theoretical agenda of his own, only darkly seen it appears in the 1930s. I am suggesting, alternative to him, that Marshall's own writings showed a way forward to Keynes. Moreover that this was toward a fruitful path that I think the more tightly logical, but less practical, theoretical strictures of Sraffa did not lead.

ⁱⁱ An early awareness of the neglect of these issues is found in Liebhafsky (1955).

ⁱⁱⁱ Kahn's thesis on the short-period and work on the marginal cost curve, were his preparation for the more famous "multiplier" of the *General Theory*.

^{iv} See the forward to the original edition of 1933 and a wiser, more complete, statement of the intellectual currents that led to this book in the preface to the second edition of 1969.

^v Especially in Book II, devoted to "Dominant Tendencies of Business Organization," but actually in the whole of the book.

^{vi} Sraffa's criticism of the Marshallian theory of the firm does not seem to have ever addressed *Industry and Trade*. It may be that by 1930 his more immediate targets were Pigou and Robertson.