

## ALFRED MARSHALL and the CAMBRIDGE SCHOOL

### A. Marshall's Life (1842-1924)

1. Studied math as a youth; then interested in metaphysics, then ethics. Finally turns to economics in order to answer a friend who, on hearing his grand schemes for making society better, would say "if you understood political economy better you would not say that." From 1868-1877 a Fellow and lecturer at St. John's College, Cambridge, publishing little.

2. Marries his former student Mary Paley in 1877; this meant he had to give up his Cambridge Fellowship. He publishes with her a popular text for university extension lecturers, in 1879, *The Economics of Industry*. Teaches at Bristol and, for a year, Oxford.

3. Succeeds the blind Henry Fawcett in the Chair of Political Economy at Cambridge in January 1885; he held it until 1908. In 1890 the first edition of his major work, the *Principles of Economics*, is published. In the same year he helped to found the Royal Economic Society, with the *Economic Journal* as its journal and F.Y. Edgeworth its editor.

4. Successfully opposes women being admitted to degree work at Cambridge in 1896. (That is: Women could take courses but not get degrees. This lasts as late as 1947 in some fields.) His argument was that the children of women getting degrees would suffer.

5. Gets the Tripos in Economics started in 1903.

6. Retires in 1908 at 66; continues to work until his death in 1924.

### B. His Influence on Cambridge

1. Marshall turned Cambridge into a world-renown center for the study of economics. When he arrived, one studied economics in either the Moral Science or History Tripos. His getting one established in Economics in 1903 allowed the subject to flourish.

2. His students included Herbert Foxwell and John Neville Keynes (John Maynard Keynes's father), both of whom taught economics with him. Later came A.C. Pigou, who developed the English variant of welfare economics, and who succeeded to his chair and held it from 1908-1943. He convinced JM Keynes, who studied philosophy and mathematics as an undergrad at Cambridge, to sit for the Economics tripos in preparation for the civil service exams in 1905. Keynes became a Fellow of Kings College in 1909 for his work on the foundations of probability theory. Soon he began teaching economics and in 1911 he took over editorship of the *Economic Journal* from Edgeworth.

3. His house, Balliol Croft, at 6 Madingley Rd., was open to students from 4-7 twice a week. They would come for tea; he would talk with them; they would leave weighed down with books from his library. He would give the *Principles* to students, inscribed with "To \_\_\_\_\_, in the hope that in due course he will render this treatise obsolete."

4. We also know that Marshall was NOT a systematic lecturer. JM Keynes said "His unsystematic method of lecturing prevented the average, and even the superior, student from getting down in his notes anything very consecutive or complete." [27] "I think that the informality of his lectures may have increased as time went on. Certainly in 1906, when I attended them, it was impossible to take away coherent notes." [51]

5. After his death JM Keynes wrote a famous obituary, Alfred Marshall, 1842-1924" reprinted in Pigou, ed. *Memorials of Alfred Marshall*. Macmillan, 1925, Kelley reprint, 1966; the bracketed numbers refer to it. Keynes worked from his own reminiscences and from notes from Mary Paley Marshall. Written in 6 weeks, it is one of the great obituaries in the literature. Schumpeter, in his obit of Keynes, called it "the most brilliant life of a man of science I have ever read", but also noted that "in order to be perfect, it would have needed another fortnight's work".

### C. The *Principles of Economics*

1. Marshall began working on economics in 1867, but worked on the *Principles* from 1881-1890. It was published in July 1890 to rave reviews. Went through 8 editions, last in 1920.

2. Marshall didn't like Jevons' claims of novelty and his trashing of predecessors. *Principles* has on its cover page the Latin phrase, *Natura non facit saltum*, Nature does not leap. This refers to his own emphasis on the importance of the concept of the margin, but also suggests that ideas change slowly, that we stand on the shoulders of our predecessors.

3. In this, Marshall was thinking: In the short run, demand is more important in explaining the determination of prices; in the long run, cost of production is. The classicals simply were more interested in the long run.

4. But this underestimates the significance of the idea of the margin, and thus Marshall underestimated his own contribution. Keynes favored Marshall over Jevons - "Jevons saw the kettle boil and called out with the delighted voice of a child; Marshall too had seen the kettle boil and sat down silently to build an engine." [23]

5. It is a magnificent work, the last great textbook that was also contributing its own vision. It appeared simple; he wanted to communicate with the layman, so he put all the math in the appendices, and graphs in footnotes.

6. But this was deceptive - hiding under the surface, behind the "smooth sentences," is "an engine of polished steel... The first time one reads the *Principles* one is very apt to think it is all perfectly obvious. The second time one has glimpses of the fact that one does not understand it at all... When one discovers that one did not really know beforehand everything that Marshall has to say,

one has taken the first step towards becoming an economist!" Pigou, *Memorials*, p. 86. [Pigou taught his students from the book; and is famed for the phrase, "It's all in Marshall."]

7. Keynes said: "The difficulties are concealed; the most ticklish problems are solved in footnotes; a pregnant and original judgment is dressed up as a platitude... How often has it not happened even to those who have been brought up on the *Principles*, lighting upon what seems a new problem or a new solution, to go back to it and to find, after all, that the problem and a better solution have always been there, yet quite escaping notice!" [48]. Keynes later characterized his own *General Theory* as marking a "long struggle of escape from habitual modes of thought and expression" - meaning by this his Marshallian upbringing.

8. In sum, Marshall knew the details of industry, and had great command of analytic framework. His carefulness and attention to details of individual situations meant he saw exceptions, and thereby anticipated many later ideas.

#### D. Other Works

1. Schumpeter once quipped, "...nobody knows Marshall who knows only the *Principles*" [HEA, p. 834].

2. *Industry and Trade* (1919), which is on industrial organization

- a. History of the rise of industry in various nations
- b. Evolution of forms of business enterprise, and
- c. Evaluation of welfare effects of railways, trusts, combinations.

3. *Money, Credit and Commerce* (1923), published the year before his death. According to Keynes, Marshall's work on monetary theory was virtually complete in 1875 [18]. But instead of writing his ideas down in a treatise, students got to know them from public documents (evidence given before the Gold and Silver Commission (1887, '88) and Indian Currency Committee (1899)), and through what was called by Keynes "the oral tradition" at Cambridge [27-28].

4. Can note here that only recently has the first full biography been completed: Peter Groenewegen, *A Soaring Eagle*, Aldershot: Edward Elgar, 1995. Only 874 pages long.

## E. JM Keynes' Summary of His Contributions

### In the Principles [40-47]

1. Marshall ended the unnecessary controversy "caused by the obscurity of Ricardo and the rebound of Jevons" [41] over whether cost or demand determine value. Both play a role, one more important in short, the other in long run. There are 2 blades of the scissors; it's silly to ask which does the cutting.

2. Extends the notion of substitution at the margin as the way that equilibrium gets brought about. Applied it to both consumption goods and factors of production; extended it to cover the whole economic universe.

3. Introduction of time, via the notions of long and short run, prime vs. supplementary cost. Made the meaning of "normal value" precise. But Keynes says despite the advances "this is the quarter in which, in my opinion, the Marshall analysis is the least complete and satisfactory, and where there remains most to do." [43]

4. Consumer's Surplus - Marshall identified it; Pigou extends it to show that laissez faire need not maximize net social benefits.

5. Analysis of monopoly.

6. Elasticity - That QD, QS may respond in different amounts to changes in P was there in earlier writers, but he was the first to provide the formula.

7. An historical introduction to the discipline

### Contributions to Monetary Thought [29-33]

1. Exposition of quantity theory of money as a part of the general theory of value - does via cash balances an individual wants to hold, rather than via rapidity of circulation (velocity).

2. Distinguishes between real and money rates of interest.

3. Shows the causal chain by which an increase in the money supply in a modern credit system influences prices - for a long time the only written expression of this was in his 1887 evidence to the Gold and Silver Commission.

4. Develops the Purchasing Power Parity theory of exchange rate determination for countries with mutually inconvertible currencies.

5. Develops the Chain method of compiling index numbers.

6. Proposal for circulation of paper currency based on a gold and silver symmetallism standard.

7. Proposal for an official Tabular Standard for optional use in the case of long-term contracts.