THE ECONOMICS OF ALFRED MARSHALL

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Foreword by G. L. S. Shackle

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Foreword

Alfred Marshall is the great enigma amongst economists. A sentence of his preface to the *Principles of Economics*, written nearly a century ago, could stand today almost as the manifesto of the transforming tide of thought which is sweeping economic theory and concern. There he told us to take seriously the fact of *time*. Is it conceivable that scholars concerned with human affairs could need this injunction? Yet for half a century from mid-Victorian times economics sought in its central endeavour to rid itself of time. That endeavour was to present the world of business as a system brought into coherent being by men's reasoned actions based on full relevant information. But the information relevant to business decisions is, by the ordained irony of things, information about what will result from the interplay of the decisions themselves and subsequent decisions, all of which decisions, if they deserve that name, are in some measure the creations of originative thought. Business men, entrepreneurs and investors, cannot have information about history-to-come, for this history waits to be created by themselves. Unknowledge thus ordained is fundamental, irremediable, it is the essence of the human condition. Marshall in his writing never approached so uncompromising a view. It would have been at odds with his belief that there is a discernible continuity in nature and in society which can give broad guidance and an outline map whose details can be filled in by the business man's own exploration. Such exploration is indeed implicit in Marshall's long-period supply curve. But can such continuity constitute, as it were, a joining of hands amongst the participants in economic life such that shifts of taste, knowledge and organisation transmit their effects by stages or steps gentle enough to be accommodated and built into a maintained or quickly restored coherence? Although Marshall's warnings imply that such a question ought to be ever-present in the economist's mind, yet his constructive urge sets it aside. In his picture, factors, influences and events are fused in the *present* flux of emergent history, they condition each other's power, they work together and in conflict. Always, what can happen in the game is constrained by what has happened. This great river of events flows in some sort of channel, gouged out by itself perhaps but in resistant soil.

Marshall's other prime warning is that any account of the governance of market values, which makes it seem simple, will be false. One of the fascinations of our discipline is to study the devices it has resorted to in search of unifying simplicity and an equally unreal precision. In Marshall's picture the self-coordinating, self-stabilising character which pervades the economic world and, with whatever delays and inaccuracies, ultimately holds it together, rests upon 'competition'. This word exemplifies the economists' habit of using their key words in an extraordinary confusion of multiple meanings. 'Perfect competition' names the situation where the number of firms selling identical products is so large that no one of them can affect the price by changing the daily or yearly quantity it offers. Each firm then is a price-taker for whom marketing effort or policy is needless and useless. As a marketer the firm is inert. At the other extreme the whole sector consists of a few large firms each of which is compelled to be sensitive to changes of price or output made by any of the others and react quickly or forestall them. The competition which coordinated Marshall's business world was not the inert mathematically abstract 'perfect competition', nor the poker-game of oligopoly, but the watchful self-informative activity of suppliers, employers and consumers, who, nonetheless for their competitiveness, found price-stability desirable and advantageous.

Marshall no doubt believed that the reasoned self-interested action of individuals and firms would lead to a broadly coordinated economic world. But his especial study was the nature of this individual action. He supposed that the mutual dependence of two classes of measurements (two 'variable quantities') such as the price per unit of some good and the number of units of it which could be sold each week could be treated, so to speak, as a direct and 'private' matter between the two, not interfered with by the effects of their changes on the behaviour of other markets. But this was the mere surface of things. Marshall examined in detailed and close-up view particular trades and their various activities and personal roles. He knew, for example, why the carpenters of his day became so early worn out (the heavy work of the plane). Compassion led him to an idealism and an optimistic vision of improvement which in our day has been realised in some measure by technological advance and a broad political humanitarianism.

What, in Marshall's conception, was the subject-matter of economics? It was the history, past *and to come*, of an evolving, ever-changing organism, business society including all those who worked in it and bought its products and brought up their children to its eventual service. Can the account of such a society's life process be reduced to a set of permanently valid principles? Only in the sense that the artist's primary colours remain the same while his methods, his purposes and his vision change unendingly. Marshall exhibited business as a process of the gaining and exploitation of knowledge. He made no claim of knowing where this advance would ultimately lead. But his whole philosophy and method were at the opposite pole from a closed, abstract and timeless system describable exactly and finally. Marshall's work is a rich, profound and elusive field of study. Dr Reisman has brought to bear upon it a temperament deeply in sympathy with Marshall's humane, realistic outlook; he has brought to it an inexhaustible patience and painstaking devotion and a high-spirited enjoyment. His book provides those who wish to celebrate the joint birth in 1890 of the Royal Economic Society and Marshall's *Principles* with a superlative analysis of that great book and of the economics of Alfred Marshall.

G. L. S. SHACKLE

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1 Introduction

The economics of Alfred Marshall is about the monetary measure of motivation as man goes about the 'ordinary business in life'.[1] It is about demanding and supplying, consuming and producing, marketing and sharing out. It is about the exchanging of inputs and outputs by means of voluntary contracts agreed upon within the overall framework of the market economy. It is about inertia and equilibrium but also about time, search, ignorance, uncertainty, evolution and change. It is about individual choice but also about interdependent preference patterns, want-creation, status symbols, fashion, custom and convention. It is about isolated action and the homogeneous commodity but also about collusion, product-differentiation, size, power, collective bargaining and struggle. It is about selfishness and self-interest but also about activity, generosity and empathy such as transcend the rational quid pro quo. It is in short the economics of a man who thought big and thought deep, a man of vision and imagination who, like the poet–architect–adventurer so vividly described by Shackle, saw before him 'a landscape inexhaustibly rich in suggestions and materials'[2] – and who, while not neglecting the minutiae of economic problem solving, was also capable of ranging widely and of seeing much.

Few things are more interesting than the spectacle of the scholarly ascetic in hot pursuit of the whole intellectual system (a forest far greater than the sum of the trees) which he sincerely hopes will answer his questions and unravel the mysteries which trouble his rest. Few things are more confusing, however, than the spectacle of even the greatest mind trying to make sense of the human condition and seeking to situate the single atom in the context of the broader picture; and that is why Marshallian economics has had to omit the caveats, the contradictions, the qualifications and the *dicta* which may or may not be all that *obiter*, in order to retell the story in a manner which is consistent, rigorous and logical. Because this book is not about Marshallian economics but about the economics of Alfred Marshall, we feel no similar need to play down the vagueness and play up the precision. Of course the box of tools is there, but, even more important than the instruments and the techniques, so too are the sensitivity and the alertness without which the economist can never progress beyond the lowly status of the hewer of numbers and the drawer of lines. As Shackle puts it:

> Computers only do what they are told, however surprising the answers they sometimes produce. Problem solving is the bread and butter of life, and we shall starve without those who can do it. But besides those who can see ahead of them the one right answer we need those who can see around them a million possibilities. We need the radial, as well as the axial, type of mind.[3]

If the economics of Alfred Marshall is at times tentative and impressionistic, it is because Marshall was in every respect the genuinely radial thinker, at all times conscious of a million possibilities – and of the essential complexity of human action.

2 Demand

One night in the early 1870s the world went to sleep classical and awoke modern. The new ideas had been around for some time, and Condillac, Say, Whateley, Longfield and Gossen would, one fears, quickly have found a common language if asked to encapsulate in a word their reaction to the work of Jevons, Menger and Walras; but the fact is that the new ideas caught on in the 1870s whereas earlier they had fallen on barren ground.

One morning in the early 1870s the world woke up and proceeded to learn the neo-classical economics. It learned that the allocation problem is central to economics for the simple reason that economics is about economising behaviour in conditions of perceived scarcity of means. It learned that market exchanges aimed at optimality in want-satisfaction are made, atomistically and individualistically, by households (which seek to maximise happiness or utility subject to a resources constraint) and by firms (which seek to maximise profits on the inputs at their disposal, in the same way as you and I are obsessed with maximising the juice which we derive from a given lemon); and it acquired a healthy respect for the equilibrium prices which appear automatically to be ground out by market processes inspired by nothing more elevated than rationality and self-interest. The world learned, finally, that the ranking of alternatives grasped not in total so much as at the margin could usefully be set down mathematically in the terse language of the differential calculus; that deductive logic has a certain pre-eminence over the less abstract and more mundane concerns of the inductivists, historical and statistical; and that good axioms and assumptions do indeed matter if good results and predictions are ultimately to be obtained. The new economics had arrived and many in England saw Jevons as its Ricardo.

Jevons presented himself on that glorious morning as an iconoclast bent on putting the cost-of-productionists and the fact-gatherers to flight: 'In the republic of sciences sedition and even anarchy are beneficial in the long run to the greatest happiness of the greatest number.'[1] A certain degree of bitterness is what one would expect from an outsider whose innovative paper of 1862 to the British Association had met with a somewhat less rapturous reception than its author felt it deserved. Marshall, however, unlike Jevons, was an academic patrician and a success. As a Cambridge professor whose life had been easy, he could afford to be conciliatory; and it is interesting that his *Principles of Economics* – as much the all-encompassing statement, the unified system, the comprehensive textbook of the neo-classical approach as John Stuart Mill's or *a fortiori* David Ricardo's *Principles of Political Economy* had been to the school which preceded it – is characterised by a tendency to emphasise continuity and to play down the extent to which the 1870s had witnessed a genuine paradigm-switch. If Jevons' *Theory* is a work of dispute and demolition, then Marshall's *Principles* is a work of bridge-building and dialogue between alternative approaches at a time of acrimony and division between them – and this despite Marshall's own repeated rejection of 'the suggestion that I try to "compromise between" or "reconcile" divergent schools of thought. Such work seems to me trumpery. Truth is the only thing worth having: not peace. I have never compromised on any doctrine of any kind.'[2]

Jevons' *Theory* appeared in 1871, Marshall's *Principles* in 1890. Marshall arrived late but started early and had apparently developed (even if he had not published) his system before he had read Jevons: 'My main position as to the theory of value and distribution was practically completed in the years 1867 to 1870.'[3] Marshall, only seven years Jevons' junior, delayed publication as long as he decently could; but was apparently a genuine innovator nonetheless.

2.1 RICARDO, JEVONS AND MARSHALL

David Ricardo, in his *Principles of Political Economy* (of which the third and final edition appeared in 1821), stressed that the exchange value of any reproducible commodity is determined by the amount of labour embodied in its production: 'The value of a commodity, or the quantity of any other commodity for which it will exchange, depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour.'[1] The exchange value of any reproducible commodity, he argued further, is not determined by the amount of satisfaction it is expected to yield at the stage of consumption: 'Utility . . . is not the measure of exchangeable value, although it is absolutely essential to it.'[2]

William Stanley Jevons, in his *Theory of Political Economy* (of which the first of a total of four editions appeared in 1871), stood Ricardo on his head, reintroduced the subjective perceptions of discrete individuals into the theory of exchange, and stated quite unambiguously that 'value depends entirely upon utility'.[3] Insofar as cost of production is relevant at all, he said, it is relevant only indirectly: 'Cost of production determines supply; Supply determines final degree of utility; Final degree of utility determines value.'[4]

Jevons did more than present an alternative hypothesis to that of his classical predecessors. He also launched a campaign of personal polemic which reached its peak in the concluding section of the Preface to the second edition (1879) of his *Theory*: 'When at length a true system of economics comes to be established, it will be seen that that able but wrong-headed man, David Ricardo, shunted the car of economic science on to a wrong line.'[5] And it was at least in part as a historian of ideas anxious to see truth told that Marshall took issue with Jevons, for no fair-minded Englishman likes to see an author he much admires inaccurately and unfairly described as 'wrong-headed': 'There are few thinkers whose claims on our gratitude are as high and as various as those of Jevons: but that must not lead us to accept hastily his criticisms on his great predecessors.'[6] All in all, Marshall said, speaking of value, 'the foundations of the theory as they were left by Ricardo remain intact'.[7]

Ricardo was not 'wrong-headed', but it cannot be denied that he was less than perfect as an expositor of his own ideas: 'he made short cuts',[8] 'he made a mistake in not stating explicitly what he was doing',[9] 'he delighted in short phrases',[10] he did not trouble to include the necessary 'interpretation clauses',[11] he made 'no pretence to be systematic',[12] he was guilty of 'reticence', clearly 'an error of judgement'[13] since it led directly to the 'unfair dialectical triumphs'[14] of critics such as Jevons. Those triumphs were based on a misconception of what Ricardo actually thought about demand alongside supply, but the fault remains Ricardo's in underestimating the extent and needs of the potential readership of his *Principles*:

> He was with difficulty induced to publish it; and if in writing it he had in view any readers at all, they were chiefly those statesmen and business men with whom he associated. So he purposely omitted many things which were necessary for the logical complete-

ness of his argument, but which they would regard as obvious . . . His exposition is as confused as his thought is profound.[15]

Ricardo's problem, as Marshall sees it, is one of marketing and salesmanship rather than one of production and quality-control. Excellence of thought when accompanied by imperfection of expression is bound to mean that new boys will one day rediscover something that is already known, and such is precisely the case with Jevons and the theory of utility: 'He did excellent work in insisting on a fact which is none the less important, because his predecessors, and even Cournot, thought it too obvious to be explicitly mentioned.'[16] If the subject of demand-theory has until recent times been 'somewhat neglected'[17] by economists, Marshall argues, the reason is in large measure that economists 'really had not much to say that was not the common property of all sensible people'.[18] Because economists such as Ricardo 'regarded the natural laws of variation of utility as too obvious to require detailed explanation',[19] they left to common sense that which belonged to common sense; and this alone accounts for their 'habit of laying disproportionate stress on the side of cost of production, when analysing the causes that determine exchange value'.[20] Inevitably, their failure to 'express their meaning with sufficient clearness' has meant that they have been 'misunderstood by all but the most careful readers';[21] but facts are facts even when they are ideas, and Ricardo and his followers 'were aware that the conditions of demand played as important a part as those of supply in determining value'.[22] So while it may be true that 'there are few writers of modern times who have approached as near to the brilliant originality of Ricardo as Jevons has done',[23] such a compliment is also a criticism: the contribution of Jevons, Marshall is saying, is to have corrected a mistake Ricardo never made. As Marshall puts it so eloquently in his 1872 review of Jevons' *Theory*, 'we continually meet with old friends in new dresses'.[24]

Ricardo was aware that utility and scarcity as well as cost of production influence the exchange value of any reproducible commodity. Not only total utility, moreover, for in addition – and although he 'did not get hold of the right words in which to say it neatly'[25] – 'he seems to be feeling his way towards the distinction between marginal and total utility': 'By Riches he means total utility, and he seems to be always on the point of stating that value corresponds to the increment of riches which results from that part of the commodity which it is only just worth the while of purchasers to buy.'[26] There is a further parallel to be drawn between the Ricardian concept of diminishing returns to a fixed input of land (a proposition which, in the history of economics, 'was the first to be subjected to a rigid analysis of a semi-mathematical character'[27]) and the allegedly neo-classical construct of diminishing marginal utility resulting from marginal doses of an output as absorbed by a fixed consumer, in both cases up to the point at which the activity is discontinued because it is regarded as being no longer worthwhile. But here as elsewhere, Ricardo's theory 'is so expressed as almost to invite misunderstanding'.[28]

Ricardo, in short, 'knew that demand played an essential part in governing value' but 'regarded its action as less obscure than that of cost of production' and in consequence 'passed it lightly over'.[29] Ricardo and his followers, moreover, were in Marshall's view 'rightly guided by their intuitions, when they silently determined that the forces of supply were those, the study of which is the more urgent and involves the greater difficulty'.[30] Besides that, 'all the more important problems of economic science'[31] are long-run problems; in the long run prices are more likely to gravitate to costs (which Ricardo unlike Marx correctly took to be labour plus profit[32]); and therefore Ricardo is to be forgiven for presenting demand-theory in so condensed a manner that it appeared to the casual reader as if it were a branch of the theory of supply. All in all, whereas Jevons 'laid . . . too much insistence'[33] on demand, Ricardo had a more complete model incorporating both demand and supply, both utility and cost of production. And that, in Marshall's own view, is methodologically absolutely correct: 'The nominal value of everything . . . rests, like the keystone of an arch, balanced in equilibrium between the contending pressures of its two opposing sides; the forces of demand press on the one side, and those of supply on the other.'[34] The production of everything, Marshall maintained, continues up to the point where there is equilibrium between supply and demand, and at that point neither supply nor demand 'has a claim to predominance':[35] 'We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production.'[36]

There is a temptation to see Marshall's work as that of the codifier and the synthesizer, as that of a man who saw himself as the bridge between classicals such as Ricardo and neo-classicals such as Jevons. That was not, however, Marshall's own perception of his work, and it would perhaps be fairer to say that he sought to follow in the footsteps of the older writers, while avoiding the 'confusion' with respect to demand which in their work 'obscured important truths'.[37] Whatever the case (and whatever one may think of the accuracy of his interpretation of Ricardian economics), one thing is certain, that Marshall saw his own work as involving 'no real breach of continuity in the development of the science',[38] as extending but not subverting the older doctrines which formed part of the economists' traditions and way of life. As he says, introducing his *Principles*: 'The present treatise is an attempt to present a modern version of old doctrines with the aid of the new work, and with reference to the new problems, of our own age.'[39] A revisionist rather than a revolutionary, Marshall was a modest man who played down the novelty of his own contribution, stressed the omnipresence of continuity in all things, and genuinely believed that *natura non facit saltum*. That his own contribution was novel, however, there can be no doubt. As Pigon says, 'skilled and tireless user of tools as he was, it is as a maker of tools that he, alone among English economists, stands the companion and the equal of Adam Smith and of Ricardo'.[40]

2.2 THE DEMAND-CURVE

'The theory of demand is yet in its infancy',[1] Marshall complained: and one reason for this was the tendency of the Ricardians to take the operation of demand 'too much for granted as a thing which did not need to be explained'.[2] Marshall himself sought to fill the gap in the literature on the theory of demand. His point of departure was Adam Smith.

Adam Smith used the term 'value' in two different senses. On the one hand he used it in the sense of value in use, i.e. the quantum of utility or satisfaction which a particular commodity yields to the person who consumes it. On the other hand he used it in the sense of value in exchange, i.e. the power of purchasing commodity *B* which is conferred in an exchange economy by the ownership of commodity *A*. Marshall's comment on this use of the term 'value' is unambiguous: 'Experience has shown that it is not well to use the word in the former sense . . . The term value is relative, and expresses the relation between two things at a particular place and time.'[3] The use of money may veil and disguise this relation – may make us think, in other words, that we are exchanging apples for pound notes when in fact we are exchanging them for nuts – but it does not negate or transform it.

People exchange apples for nuts because, in a system of division of labour, this is a way of increasing the economic well-being of all actors (as is indeed demonstrated by the fact that trading ceases between two parties at that point when 'no further exchange would have been possible which would not have diminished the satisfaction of at least one of them'[4]). Clearly, people have wants and want to satisfy them; and economics as a science is principally concerned with actions of this nature. More specifically, economics as a science is principally concerned with those actions where the measure of desire 'is found in the price which a person is willing to pay for the fulfillment or satisfaction of his desire'.[5]

Note, however, that the strength of the desire is not constant. It is variable (varying with the quantity consumed of a particular commodity), and the reason for this is the 'law of diminishing returns': 'The additional benefit which a person derives from a given increase of his stock of a thing, diminishes with every increase in the stock that he already has.'[6] When, therefore, we observe an individual wondering whether or not to purchase one more unit of a commodity (when he is, as Marshall puts it, 'on the margin of doubt'[7]), we must remind ourselves that it is the extra or marginal utility that that individual is seeking in his mind to imagine, not the total utility he derives from the consumption of that commodity: he may already have *some* and is in effect trying to decide not whether he wants *any* but whether he wants *a bit more*.

It is in this way that we derive a continuous utility schedule (which may be drawn as a negatively-inclined pleasure curve, sloping downward to the right), a list of relationships between extra quantity consumed and extra utility enjoyed. If we then add the assumption that people, acting rationally, will insist on paying less for something which yields them less satisfaction, we arrive at the demand-curve: 'The greater the amount to be sold, the smaller must be the price at which it is offered in order that it may find purchasers; or, in other words, the amount demanded increases with a fall in price, and diminishes with a rise in price.'[8] In the limiting case the demand-curve intersects the horizontal axis; for there, at the 'margin of satiety', the consumer takes the view that 'any further supplies would be of no service to him'.[9]

Up to now we have been considering the functional relationship between quantity demanded and price the consumer is just willing to pay exclusively in terms of the direction of the slope, and have decided that less means more: 'Every fall, however slight in the price of a commodity in general use, will, other things being equal, in-