PWS Andrews was an original thinker whose work refused to be easily categorised into the schools of thought currently vying for attention, neither the orthodox marginalist school for which he developed a considerable contempt, nor the Keynesians whose main interests were far from his own, and where they converged he disagreed strongly with them, nor the simplistic 'full costites' as he called them, a variety of institutionalism in the economics of the firm. His contribution as theorist, while many faceted, had at its core a profound respect for the processes of competition in markets, and for the analysis of that process which he found in Marshall, both of the Principles and of Industry and Trade. He shared with Marshall a belief in the importance of a thorough study of the individual business, in becoming steeped in the ways in which such businesses worked. Only then could general principles be induced. The principles which he did induce were those of the market. The firm set its prices only as the prices of competing firms allowed. The manner in which it set its prices, and the means it used to protect its 'own' market, were the phenomena through which market competition led to a price being set. Lee and Earl set before us a group of papers which are, if anything, more explicit than Andrews' major books in making the point that he is taking Marshall seriously in extending Marshallian theory of the firm and the industry. But the attempt is yet incomplete, the dynamics which Andrews mentions are not articulated in a way that allows an industry's structure and performance to be analysed over time in a simple and instructive manner. His holding on to Marshall's representative firm ties his theory down to only the facade of dynamics.

Andrews' work has long been vaguely known by the many and well known to a few, as seminal to directions of theory now taken as orthodox but expressed within a framework that is far from orthodox. That unorthodox framework remains an obstacle to his reputation amongst the neoclassical community. Unfortunately few of them will read this book, or this or any other review, so the position will remain as long as the current hegemony rules our profession.

Lee and Earl, both determinedly heterodox themselves, have engaged in a labour of love of the ideas and frame of analysis Andrews rescued from Marshall's Principles and Industry and Trade. Fred Lee has spent the better part of his career digging at the plentiful papers left by Andrews, building a coherent, if arguable, view of the content and significance of his body of work. Earl's considerable output of work focusing on behavioural economics has substantial resonances with Andrews' work, and includes some papers directly on
Andrews. Thus the present volume is sympathetic, if not evangelistic, in its approach to Andrews’ doctrines.

The volume begins with a biographical essay by Lee. In 35 pages he outlines the seminal events of his rather stormy professional life. The picture of Andrews as a man of strong principles, the strongest of which was the principle of changing one’s mind when faced with strong evidence, is clearly drawn. His adherence to pacifism, his quick conversion from socialism, his slow but eventually determined conversion from marginalism, his obstinate refusal to attempt to express his anti-marginalist ideas in terms acceptable to the orthodox marginalist economist, but to make economic theory accessible to the businessman instead, are all demonstrated. It may be idle to speculate on whether Andrews’ version of economic theory of the firm may have enabled the discipline to keep so-called management science within its walls, had it been the orthodoxy instead of neoclassicism. Lee explores the disappearance of Andrews’ perspective from Andrews’ journal, the Journal of Industrial Economics, by questioning the present editors about the lack of papers in Andrews’ tradition (p.34). Their response was understandable. Few such papers, and none of adequate quality, are submitted.

The transformation came during the latter years of the editorship of Elizabeth Brunner, as econometrical work based on little if any theory came to characterise what is now disparaged as the ‘old’ industrial economics, in America, industrial organisation. Since the growth of the ‘new’ industrial economics the journal has become exclusively neoclassical. Not even technical heterodox papers are to be found within its pages. No paper which could be described as (old) institutionalist or evolutionary has ever been published. It remains for another work to explore the changes in this of all journals over the decades from the 1960s until the present.

The first of Andrews’ papers in the collection is his initial report on the investigation of economies of scale in the rayon industry. The report, published here for the first time, so it would seem, impresses for the thoroughness with which he examined what he called the ‘accountancy side’, using what came to be called the engineering estimates method to arrive at a quantitative guess at the advantages of scale. This method of estimation has never achieved the respectability it deserves amongst economists, despite the clear dominance it enjoys over econometric methods using only formal accountancy reporting data. Firstly his method weighs the significance of guesses, cross checking each dimension by alternative sources and taking their prejudices into account. Second, guesses are in the context of the history of the business and its technology: Courtaulds’ Preston plant was seen in relation to earlier investments, in terms of the advances made and sources of the efficiency gains. Third, the information came from the source end of the information stream, not the downstream user end at which the processed information is most contaminated by user requirements and prejudices. The disadvantage of this method would appear to be that the final table of numbers is transparently less than precise. The charade of precision given by the output of econometric exercises has apparently fooled much of the profession into belief in the usefulness of combining highly processed accounting data from a variety of disparate sources.

Among the insights signalled in this paper is that credited to Wilfred Salter some 20 year later, that it pays a firm to invest in new fixed capital items only when the total cost of the new is less than the operating or direct, prime, cost of the existing items (p.62). The language of the paper is also peppered with references that make it clear that Andrews remained within the orthodox marginalist school at time of writing. Optimum efficiency and explanations for any departures from it, the use of Chamberlin and Triffin as sources of theory to be developed (p.70) indicate that he had not yet made the break with marginalist conceptions of the firm.
The next two papers (chapters 2 and 3) are well known ones, the first the OEP paper of 1949 which introduced many of the concepts of Manufacturing Business, the second his paper from Wilson & Andrews (1951). The new materials here are the letters appended to the end of chapter 2 (pp.112-122). These letters are from Harrod, Robert Hall, D.H. Robertson, Richard Lester and M. Fogarty (to M. (Monsieur) Bye), and Andrews' replies to Harrod and Robertson. They illustrate less the attitudes to Andrews' ideas than their own prejudices. Harrod's need to be given recognition as an originator is striking: an almost petulant attitude calls forth a response which includes a reproof in kind. Robertson attempts to reconcile differing theories by proposing a woolly covering idea that fails both to satisfy logic and the demands of practical usefulness. Andrews' response to this is a clear statement of the incompatibility of Andrews' ideas with those earlier attempts to explain the falling long run supply curve in a competitive industry. Fogarty's letter (July 1949) is of interest as he is pointing out to the organiser of the Semaine Sociale, that a competitive market was a possible way of organising an economic system. Fogarty points out that Andrews' new book (Andrews, 1949) gave many reasons for optimism, as against the pessimism of most participants in the conference that imperfect competition and oligopoly made decentralisation unworkable (pp.120-1).

Chapter 4 is another unpublished paper, a lecture to the Politics and Economics Society, Oxford, in 1952, entitled The Legacy of the 1930s in Economics. His comments on the controversies of the era between the wars reveal a mind of the subtlety which is most clearly seen in his major theoretical work (Andrews, 1964). His belief that theory has both inductive and deductive aspects is clearly stated. His thought is distinguished from the old Institutionalists who abjure deductive theory, as much as from the orthodox who despise induction from observation rather than introspection. The paper is a vehement attack on the left leaning socialism of economists of the post war period, with his own version of the history of theory in the 1930s which he saw as being thoroughly tendentious. It is no wonder he was not popular with many of his colleagues. His views were extreme for their time and their place, much as the right leaning profession today finds left leaning views extreme. Why he did not find a more accepting audience in the USA at the time is not too much a mystery, but it may be that had he cultivated American connections he might have found a congenial home, at least ideologically.

Another aspect of interest is his judgement on Keynesian economics' neglect of inflation and its then great confidence in the ability of policy to avoid unemployment. His words read almost like those of modern monetarists and post monetarists, warning against the notion that "the villain was the inherent instability of investment and the only remedy which the Government Prince Charming need apply was the creation of additional investment (and) full employment could be avoided by little short of criminal carelessness" (p.169).

Chapter 5 is the hitherto unpublished lectures he gave in the University of Groningen in May of 1952, with an appendix of further interesting letters on the controversy about his theory, from Harrod, on Austin Robinson's long and critical review of (Andrews, 1949), to Chamberlin, insisting on the differences between their respective theories, to and from Richard Kahn against being regarded as a 'full costie', to Harold Macmillan on Blackwell's publishing the JIE, to Richard Heflebower, again against being regarded as a 'full costie'.

In this latter he contrasts his position with that of Paul Sweezy. Sweezy "is too static a man; he is trying rigidly to work out oligopolistic analysis with static tools in the real world. The articles which a business is producing have frequently changed specifications, and the
fundamental basic conditions are also subject to change, and any theory which explains why and how prices will change in these conditions is also, necessarily, a theory to the equilibrium of price if conditions were not changed" (pp.229-30). Here we have a clue as to the nature of his dynamics. It is the explanation of the movement toward equilibrium. Indeed, his concept of 'normal cost', based directly on Marshall's representative firm (normal size, neither young nor old, neither growing nor declining, neither innovative nor lagging behind normal practice: Marshall, 1920, pp.317-8), implies the existence of the Marshallian equilibrium in which the industry has a stable price and output, but the firms may be growing or shrinking depending on their stage of life and vigour.

The first lecture is an explanation of the Marshallian origins of his theory, of his rejection of what he labelled 'microequilibrium' in Andrews, (1964). The ground he covers here is familiar to readers of Andrews, (1964) and to those who read Marshall for his text rather than his footnotes. Here we have the contrast being drawn between the Marshall of the footnotes and the Marshall of the text, between analytical rigour and economic theorising.

The second lecture is Andrews' critique of microequilibrium, a 12 year precursor to (Andrews, 1964). His exposition of Robinson's and Chamberlin's respective theories of imperfectly competitive markets contains at least the beginnings of all the themes he later developed. The distinction between manufacturing and retail trade is clearly drawn. The only element not to sit well with his later views is his hopeful attitude to game theory, still in the flush of youth in 1952, but seen as an empty vessel by the early 60s (as it is in the mid 90s, after a revival in the late 70s).

In the third lecture, perhaps the most interesting, he details the investigations he has made of business behaviour since his involvement in the Oxford Economists' Research Group. His methods are far from those of conventional industrial economics, then and now. The depth of detail he demanded has only been equalled by legends of Marshall's own studies in the 1870s, a depth possible only in the context of relatively small and unified business. As an exposition of normal cost price theory as a tool of applied economics this lecture goes beyond anything in previously published Andrews works.

The following two papers are his theory of retail trade. The first is his 1950 Oxford Economics Papers paper, the second his contribution to (Andrews & Friday, 1960) Fair Trade, a pamphlet written in response to the Hobart Paper advocating the abolition of resale price maintenance. This second paper has long been difficult to find, so its publication here is welcome. The argument specifically about RPM is not the central issue of Andrews' contribution, but his theory of retailing, which is quite distinct from both the orthodox 'retailing is selling the service of selling', and from his theory of manufacturing business. The institutional detail is a little dated, in that the channel of distribution from manufacturer to final consumer was not dominated by a few powerful retailers exercising their countervailing power over manufacturers, but subject to the competition between wholesalers for retail trade, and retailers for consumers. In Andrews' view retailers sell goods to the public. Competition between retailers is to attract customers to buy goods in demand. The goodwill of the retailer will depend on the range of goods, the holding of stock, the availability of various services, but the fundamental which holds prices at their level is demand for goods and competing supplies of those goods. His argument regarding RPM is based on this notion, that manufacturer imposed RPM will only be anti-competitive if the manufacturer has the power to hold price above a competitive normal cost price, in which case the absence of RPM would not make any difference as retail margins depend on normal costs, and retailers would have to
pay the inflated price for their supplies. But in a world of powerful retailers, RPM does make a difference. The retailer's power to restrict their buying price is negated by effective manufacturer RPM.

Chapter 8 is another obscure paper, first published in the *Proceedings of the Journal of the Textile Industries* in 1953. An interesting snippet is that his first public lecture was to prisoners in Winchester Gaol, on the topic of wages. The prisoners, he recalls, were quick to point out that the theory was somewhat far removed from practice (p.309). The topic of the present paper is capital development, i.e., the change of size and nature of its investment in fixed assets. His views of the subject are practical, they make the distinction, indeed almost take it for granted, between money and fixed capital. Money has to be raised, saved or borrowed, in order to buy or lease the capital equipment. Differing relative costs explain some of the differences between industrial countries' techniques, so British firms may invest in techniques that were commonplace 20 years earlier in the US. His concern with the differences between these two countries is understandable. Fear that the UK was far behind the progressive USA, he thought was mainly undeserved, as the conditions of production in the two were so different. Smaller scale methods of production in the UK make labour intensive methods economical, and reduce measured productivity, while US methods would bankrupt the UK firm trying to emulate the US productivity. His discussion makes technical progress an integral part of the investment decision. Capital development means choices about new technology, and these are all within the firm's power to choose and to change. He strays into discussion of public policy via the problems of providing the stream of finance required for capital investment. But it was not only the financial constraints that occupied him. The physical constraints on the capital equipment industries, long depressed until the end of the war were also important. The time taken to adjust to the demands of post war reconstruction was a limiting factor in many industries. The breadth of his vision in this address makes him sound little like an economist today, more the management consultant or commentator.

Chapter 9 is another very obscure paper, an address to the Institute of Petroleum in 1958, entitled "Competition in the Modern Economy". It is symptomatic of Andrews' writing that it appears in places obscure to the economist, his disdain for most economists by the middle 1950s, and his identification with businessmen, meant that he both had relatively little opportunity to address economists at meetings or via journals, but much more of addressing businessmen. He put forward his ideas uncompromisingly on these occasions, as this volume demonstrates. The sophisticated critique of Andrews, (1964) was substantially complete as we have seen, at least 12 years earlier, in his Netherlands lectures, not a venue from which it could be disseminated easily. His papers to the Textile and Oil trade associations were not the only ones to be obscured from the economics profession.

But this paper advances an aspect of Andrews’ thought that has remained implicit in most of his other writing. This is the notion that ‘modern large businesses are competitive affairs internally’ (p.325). The paper is focussed on oligopoly, and its inherent competitiveness, despite the seemingly cartel like arrangements that sometimes face the outside world. As well as the familiar Andrews arguments for oligopoly being competitive the argument is made that the internal competition between 'young men in a hurry' and old incumbents makes cartel members subject to competitive constraints: the young men, ambitious to make their way prevent the firm from lying fallow in cosy cartel blankets. Within this thesis is the concept of competition between the different functional departments of the firm. In an anticipation of the Cyert & March (1963) behavioural perspective Andrews proposes that in his experience, the
different departments keep each other on their toes. Rather than enforcing compromises that restrict the ability of the firm to compete, he sees the firm as continually re-vitalised by this conflict. He sees departments demanding better performance of the others, rather than demanding others yield to demands for an easy run for itself. This differs in emphasis from the Cyert & March perspective which is one of coalitions of interests creating acceptable compromises to quasi-resolve conflicts in achieving goals or satisfying constraints.

Chapter 10, with E. Brunner, from the JIE, 1962, is an attack on the idea of the 'quiet life' firm. The argument is that firms will certainly minimise costs, if they are bureaucratic corporations, due to the 'young men in a hurry' syndrome, and they will necessarily maximise profit in the long run, but that this is barely recognised in orthodox theory. His concern with realism, and his use of abstraction, is illustrated well in this piece. The abstraction he makes is not to the firm run by an individual entrepreneur, but to the allegedly inexorable force of internal and external competition imposing itself upon the corporation, where that force is described in realistic terms of 'young men in a hurry' and astute industrial buyers shopping around for better deals. Chapter 11 is his well known piece in the first issue of the JIE in 1952. How his ideals have been abandoned in the last three decades by his profession! The very notion of the economist gathering data from within the firm, gaining the detailed knowledge which Andrews regarded as crucial to understanding the world of business, has gone from amongst industrial economists, at least from those who publish their results in the academic journals. The final piece is another address to a mixed audience, this time in California, mainly businesspeople, again arguing for the intimate involvement of the observing economist with his or her subject.

A general impression of all of Andrews' papers reproduced here is his uncompromising demands on the attention and intelligence of his audiences. None of the papers read to meetings of businessmen make any concessions regarding the sophistication of the argument. The language may be more accessible to them than the language of orthodox economists but it is nonetheless dense and subtle. Reading these now one has to return to re-read and compare and contrast in order to understand the argument. And yet at the same time, his approach to points made directly and simply by, e.g. Edith Penrose (1959) is much more indirect, implicit and particularised. A good example is his paragraph on diversification, a word he does not use (p342). Access to capital differs between firms. Those with surplus capital may "impinge upon" other areas, thus demonstrating the ease of entry constraint on behaviour of firms established in those other areas. To what extent can we blame Andrews' style of writing for his neglect? Too many ideas, expressed too obtusely, the big simple ideas lost in the thickets?

In many ways the collection shows that the great insights into the setting of prices and outputs which Andrews gained from his detailed study of businesses and the competition within those industries came from that detail, but that he never managed to take his focus far from that detail. Realism was his watchword, occuring so many times in this collection, abstraction is the opposite of his ideal, and yet to theorise at all he had to abstract, but he selected the language of his subjects, businessmen. Many ideas, such as investment cycles, diversification, competitive pressures forcing technological change and progress in productivity, evolution of market structures with technological change, are introduced obliquely and then passed over without development as being too obvious (to the businessman) to be significant. Claims that he anticipated Penrose (diversification and growth), Salter (capital goods replacement and investment), Cyert & March (inter-departmental competition), Downie (competitive process given efficiency differences), can be made, but
they are trivial in that had others not developed the ideas they would still be mere gems, implicit theory, and unrelated to general theoretical structures. And is this not another of the tragic aspects of Andrews' career, that his mind was so fertile, yet so constrained from communicating the wholeness of the vision. Unlike Marshall there was never any chance of a Principles of Business Economics developing all the ideas that came through his mind. Is part of this his very close identity with his subjects, his advocacy of business interests from his earliest detailed studies in the 1940s? He adopted business language along with business interests, he argued that cartels were generally innocuous, that resale price maintenance when imposed by manufacturers was entirely in the public interest. Business stability was high on his list of functions of social institutions, such as government and cartels. He favoured reductions of tariffs in the early 1950s, but by 1% (of the tariff) per annum, forever, so that business would not be disrupted (p.316-7).

Earl's essay bringing the volume to an end, looks at the array of ideas that Andrews used which have been, in Earl's word, re-invented. His catalogue of re-inventions is short but broad. Behaviouralist analysis of the firm; Post-Keynesian pricing theory; managerial limits on the rate of growth of the firm; and pre-eminently, contestability analysis; internalisation of imperfect markets by vertical integration; all of these were anticipated by Andrews' themes but were given no acknowledgement by their later authors. Earl's explanation is in terms of the rhetoric of Andrews' exposition, his crumby relationships with colleagues and with the profession in general, and his consequent refusal to engage in dialogue with potential allies. His hostile reactions to the work of Cyert & March and Penrose are particularly striking.

Earl writes as an enthusiastic Andrewsian, and writes of Andrewsians as being those who take theoretical comfort from Andrews' writings. What does somewhat exercise this present writer, an Andrewsian manqué, is that the essence of Andrews' method was detailed inside knowledge of industry, gained by long hard work in close co-operation with the firms of the industry. How many Andrewsians have taken up this challenge? How many are not merely the here today, gone tomorrow consultants that Andrews reproves (p.381), but the long term intimates of the industry. As one whose persistence in cultivating an industry association faded easily in the face of suspicion and apathy, nearly 20 years ago, and retreated to the easier fields of theory, I sympathise with the lack of enthusiasm, but point out that it is hardly a surprise that Andrews' methods are forsaken by his followers, and Andrewsian empirical studies thus lie thin on the ground, and the theoretical work within his framework remains unattractive to editors, as Lee points out in his opening essay. So how do Andrewsians get to actually do Andrews' type of industrial economics?

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Notes
1 Was mine one of the last, in 1978?
2 So called "New Institutionalist" economics I class as neoclassical, being within the maximisation, methodological individualist, research programme.
References