## SOME PROBLEMS IN BUSINESS HISTORY, 1870-1914

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A feature of the voluminous literature which seeks to interpret British economic experience between 1870 and 1914 has been something of a rush to judgment of somebody called "the British entrepreneur." Thus, in an admittedly tentative but nonetheless valuable exploration of the subject, Mr. Aldcroft's purpose was to advance "the hypothesis that Britain's relatively poor performance can be attributed largely to the failure of the British entrepreneur to respond to the challenge of changed conditions "1 The result is a field day for the student in search of generalizations. "... studies of individual business firms confirm the belief that entrepreneurial initiative and drive were flagging, particularly before 1900. It would appear therefore<sup>2</sup> that the British entrepreneur had lost much of the drive and enthusiasm possessed by his predecessors of the classical industrial revolution "8" "So long as it was possible to make an honest penny British entrepreneurs were content to jog along in the same old way using the techniques and methods which their ancestors had introduced "4

After pondering the evidence at much greater length and considering other general attributes of British economic retardation between 1880 and 1914, Professor Levine attaches considerable weight to enterpreneurial failings "To conclude, technical and organizational lag in British industry was, more than anything else, a question of entrepreneurial responses—responses that drew their character from certain social and social-psychological circumstances but which were further conditioned by the economic and other consequences of Britain's earlier start on industrial power, of the nature of the market for British goods, of the mix of the British export bill, and of the rate of growth of Britain's national product, with the last being possibly the most important of these." It is

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<sup>&</sup>lt;sup>1</sup> D. H. Aldcroft, "The Entrepreneur and the British Economy, 1870-1914, Economic History Review, XVI 2nd series, (August 1964), 113

<sup>&</sup>lt;sup>2</sup> From four such case histories

<sup>8</sup> Aldcroft, op. cit., p 114

<sup>&#</sup>x27;Ibid, p. 133. See also the same author's "Technical Progress and British Enterprise 1875-1914," in Business History, VIII (1966), 122-39.

<sup>&</sup>lt;sup>6</sup> A. L. Levine, Industrial Retardation in Britain, 1880-1914 (London, 1967), p. 150.

interesting as an example of the widely divergent views on the role of entrepreneurial failings and their possible causes, that Dr. Hobsbawm takes a much more qualified view of their extent and an entirely different view of the sociologically rooted explanations of the failings which did exist. "An increasingly popular explanation is the sociological one which puts it down to lack (or decline) of enterprise among businessmen, to the conservatism of British society, or both. This has the advantage for the economists of throwing the burden of explanation on the historians and sociologists, who are even less capable of bearing it but just as willing to try There are various versions of such theories, all quite unconvincing...." "Simple sociological explanations therefore will not do In any case, economic explanations of economic phenomena are to be preferred if they are available "6 And of course they are, the most eminent being Professor Habakkuk's view that entrepreneurial shortcomings were the result of a slow rate of growth of demand,7 but this, which puts the weight of explanation on the demand side has in turn been heavily criticized by Professor Landes who observes that Habakkuk's "feedback" approach "offers an explanation for one side of economic behaviour, that of the stimulus to economic activity which comes from the side of demand. But it slights the supply side and thereby truncates historical reality. Nothing succeeds like success.... but why do some succeed and others fail?"8 In short, if simple sociological explanations will not do, simple economic explanations command less than universal approval

In view of the massive condemnation of "the British entrepreneur" on the one hand, and the variety of competing hypotheses as to both the causes of his failings and their relationship to the causes of the retardation of British economic growth, it may seem foolhardy to enter an arena in which so much academic blood has already flowed and in which the contestants, still polishing their swords to renew the cut and thrust of battle, may turn their weapons to dispatch swiftly a newcomer, before resuming their own contests It is not the purpose of this paper to question the

<sup>7</sup> H. J. Habakkuk, American and British Technology in the Nineteenth Cen-

tury (Cambridge, 1962), esp p. 213

<sup>&</sup>lt;sup>6</sup> E. J. Hobsbawm, Industry and Empire: The Making of Modern English Society Vol. II, 1750 to the Present Day (London, 1958), pp. 153 and 157.

<sup>&</sup>lt;sup>8</sup> David Landes, "Factor Costs and Demand: Determinants of Economic Growth," Business History, VIII (1965/6), 15-33. Also the same author's "Technological Change and Development in Western Europe, 1750-1914" in The Cambridge Economic History of Europe, vol VI, Pt 1 (Cambridge, 1965), pp 582-84

fact that there were areas of industry in which British entrepreneurs displayed conspicuous shortcomings-sometimes compared with their German counterparts, sometimes with their American, sometimes in relation to earlier British standards, sometimes to any two or all three Rather it is to explore the possible implications of that "patchiness" of entrepreneurial performance which is widely acknowledged.

Having perhaps unfairly begun by quoting generalizations about "the British entrepreneur" from Mr. Aldcroft's article, which was an admittedly tentative exploration, it seems only right to note that he has since heeded his own exhortation,9 editing a collection of studies by a number of economic historians on the response of a wide variety of British industries to foreign competition between 1875 and 1914. In his introduction, a less captious and more qualified note of criticism is struck " any sweeping generalizations regarding the experiences and performances of British industry in this period are bound to be somewhat misleading since the impact of foreign competition and the subsequent reactions to it varied considerably from one branch of industry to another. In fact, probably the most significant feature was the wide diversity of experience between industries or sectors though there were of course a number of common characteristics, notably the apparent strength of many of the older established branches of industrial activity and the tendency towards concentration on Imperial markets It would be inaccurate moreover to argue that British industry as a whole was uncompetitive and inefficient since there were some impressive achievements in these years of increasing international competition. 10 This is indeed a long way from the sweeping generalizations of Mr. Aldcroft's earlier contributions. 11 The hazards of generalizing about "the British entrepreneur" have of course been recognized elsewhere. As Professor Landes writes of his own discussion of Anglo-German competition in terms of "what sociologists call the analysis of ideal types, in this case, two contrasting types of entrepreneurs. This is inevitably a dangerous technique of historical comparison, because it rests on the averaging of the

<sup>9 &</sup>quot;Much further research is required into the history of individual firms and industries before a final judgment can be passed." Aldcroft, op cit, p 134. <sup>10</sup> D. H. Aldcroft (ed), The Development of British Industry and Foreign Competition, 1875-1914: Studies in Industrial Enterprise (London, 1968), pp

<sup>&</sup>lt;sup>11</sup> See also Aldcroft, "Technical Progress and Business Enterprise 1875-1914," Business History, VIII (1966), 122-39.

unmeasurable, hence unaverageable, and does violence to the complexity and variety of human behaviour."<sup>12</sup>

Nor is it surprising that historians have been quick to indicate various sectors of the British economy displaying modes of entrepreneurial behavior which diverged sharply from those generally censured both by contemporaries and subsequent commentators using hindsight Thus, Professor Wilson points out that blanket condemnations and aggregate assessments ignore the fact that the industrial economy was moving not simply in one direction but in several at once. "The division can be made—though very roughly and with exceptions-into old industries and new industries, basic and light industries, industries based largely on home markets and others on export markets. The problems of the entrepreneurs were likewise not uniform; they varied according to the age and prospects of the industry. Averages and aggregates obscure such realities that derive from historical social development."13 To support this view he argues that about one-third of manufacturing industry, as recorded in the 1907 Census of Production, occupying perhaps one quarter of all employed labor during the previous quarter of a century-industries oriented towards consumer goods productionrepresented a buoyant sector of the economy to set off (at least in part) against slackening rates of growth in other industries.14 The existence of such a sector seems now generally to be conceded<sup>15</sup> and its mainsprings discernible—the expansion of real income per capita with a probably favorable distribution towards the working classes, an accelerated rate of population growth, increased urbanization and possibly, as Professor Wilson argues, differential price changes which favored industries in the faster-growing sector which received inputs from other industries which were more restricted.

Given the admitted roughness of the distinctions made, "new/old," "basic/light," "home-based/export," which are in any case

<sup>18</sup>C. H Wilson, 'Economy and Society in Late Victorian Britain," Economic History Review, 2nd Series, XVIII (August, 1965), 198.

<sup>15</sup> Cf. Habakkuk, op cit; Hobsbawn, op cit, and Pollard and Crossley op cit. Also W. Ashworth, An Economic History of Modern Britain, 1870–1939,

(London, 1960), p. 78.

<sup>&</sup>lt;sup>12</sup> Landes, "Technological Change," p 581. (A good reason perhaps for not doing it.)

<sup>14</sup> Ibid, p. 193. It is untrue that Professor Wilson "suggests that this was enough to outweigh the slackening elsewhere," S. Pollard & D. W. Crossley, The Wealth of Britain (London, 1968), p. 229, n. 14. He specifically states that this question is impossible to answer but that the sector in which growth was occurring was no 'trivial or trumpery thing" which indeed it was not

16 Cf. Habakkuk, op cit; Hobsbawn, op cit, and Pollard and Crossley op

often overlapping combinations,16 can we further narrow down the distinctions between those which did and those which did not respond successfully during this period to the pressures of change, especially those manifest in the shape of foreign competition? With Mr. Aldcroft's new volume before us and other recent industrial studies,<sup>17</sup> we surely can go some of the way. To begin with, the distinction between old and new undergoes erosion, insofar as of the old industries, the woolen branch of the British wool textile industry recovered well from the initial impact of foreign competition, partly because of its greater opportunities to reduce costs by increasing its raw material inputs of recovered wool<sup>18</sup> mixed with virgin wool, while the worsted branch, lacking such possibilities, continued to languish 19 Cotton, another of the old industries of the "classical" Industrial Revolution, in spite of criticisms of failure to introduce new machinery on a significant scale, "continued to produce yarns and, to a lesser extent, piece goods more cheaply than the American industry throughout the period"20 and maintained its supremacy over Continental rivals down to 1913. In the merchanting of its products it was particularly well served by any contemporary standards 21 Engineering, with branches varying from "old" to "new," exhibited a very mixed record as might be expected in a multi-product industry. Of the older branches, especially in textile machinery, the manufacture of steam engines and machine tools "there is evidence of a readiness to accept change and innovation which is most impressive."22 There was also in the newer branches of the industry a commendable response to new opportunities in grain milling, cycle manufacturing, and "strikingly good" performance in the development of oil and semi-diesel engines.23 Yet in the production of petrol engines, heavy diesel

<sup>16</sup> Thus, brewing would be old, light, and home-based; wholesale clothing manufacture, new, light, home-based; woolens and worsteds, old, basic, and export-oriented but each displaying very different responses to foreign competition.

<sup>&</sup>lt;sup>17</sup> E.g., R. A. Church, "The Effect of the American Export Invasion on the British Boot and Shoe Industry, 1885–1914," Journal of Economic History, XXVIII (1968), 223–54, and A. E. Harrison of the University of York, whose study of the successful response of the British cycle industry to American competition is shortly to be published in the Economic History Review

<sup>18</sup> That is, mungo and shoddy.

<sup>19</sup> E. M. Sigsworth and Miss J. Blackman in Aldcroft, Developing of British Industry and Foreign Competition, pp. 153-55.

<sup>20</sup> R. E. Tyson, "The Cotton Industry," in ibid, p. 124

<sup>&</sup>lt;sup>21</sup> *Ibid* , p. 126.

<sup>&</sup>lt;sup>22</sup> S. B. Saul, "The Engineering Industry," in Aldcroft, Developing of British Industry..., pp 191-209, esp. p. 209.

<sup>28</sup> Ibid , 209-26.

engines, and motor cars the picture was much less favorable. All in all, the judgment on engineering is that "clearly there were sectors where her [British] supremacy still remained unchallenged True, some of them were destined to be less important after the war than before; perhaps in that broad sense our engineering structure was overcommitted to the past, but it must be stressed that there were no grounds at all for diverting resources away from these areas prior to 1914, since activity, exports, and profitability all remained buoyant "24 Like the cycle industry, the British boot and shoe industry-a "new" industry in terms of factory organization, faced and successfully overcame strong American competition-"an outstanding instance of the stimulating effect of free competition on a resolute industry."25 The British glass industry consisted of three branches, that producing flint glass and tableware, that manufacturing bottles and jars, and the flat glass section, each distinguished from the other by differences in the chemical composition of the glass made, in manufacturing techniques, and in markets While the first suffered from Continental competition, "the other two branches established themselves in a much stronger position."26 There was no doubt about the supremacy of the German chemical industry, though even here, where British entrepreneurial failure was conspicuously displayed, there were odd patches of light in the general gloom, a "striking contrast between the ubiquity of German competition severe in all products and the character of British competition, strong only in a few categories: heavy [inorganic] chemicals, soaps, paints, and fertilizers ... [with] concentration on too limited a range of chemicals especially on products growing only slowly in international trade."27 In shipping on the other hand, Britain's competitive position remained virtually unassailable and in Pollard's words, "if ever there was a class of entrepreneurs capable of standing on their own legs it was the British shipbuilders and owners."28

<sup>&</sup>lt;sup>24</sup> *Ibid.*, p 230.

<sup>&</sup>lt;sup>25</sup> P. Head, "Boots and Shoes," in Aldcroft, Developing of British Industry.

<sup>&</sup>lt;sup>26</sup> T. C. Barker, "Glass Industry," in Aldcroft, Developing of British Industry p. 311. The two branches where major technological innovation was possible can claim a creditable record during this period. The one where it was not possible, not surprisingly, cannot." p. 325.

<sup>&</sup>lt;sup>27</sup> H. W. Richardson, "Chemicals" in Aldcroft, Developing of British Industry ..., p 298. Explosives and coal tar intermediates were also "go-ahead" sections

<sup>&</sup>lt;sup>28</sup> S. Pollard, "The Economic History of British Shipbuilding," (University of London, Ph D. Thesis, 1951), p. 298, quoted in Aldcroft, *Developing of British Industry* ..., p. 361.

There remain iron and steel, coal and electrical goods, variously old and new but commonly castigated. For the first, the point has been made, however, that in assessing the industry's performance excessive weight has been placed upon the Bessemer section of the industry and that the open-hearth section presents a rather more favorable picture.29 Further, it now seems that even had British iron and steel manufacturers done all that they might in reducing costs of production below those of their German competitors, then they would still have been unable "to match or even approach the growth of the German and American industries,"30 because the growth of demand for iron and steel in Germany and America was much faster than in the rest of the world, while British iron and steel products were denied access to the rapidly growing German and American markets by a "Chinese Wall" of tariffs which "could and probably would have been heightened" had the British reduced costs and hence product prices to a greater extent 81

As to coal, output grew at an accelerating rate during 1875–1913, net profit rates rose during the three pre-war decades from three to eight percent, miners were amongst the best paid British workers and, working shorter shifts, earned more—considerably more—than any Continental miners, but while wage-costs were thus higher in Britain, overall costs were "impressively lower," and British labor productivity was markedly superior in comparison with all European rivals, though to a diminishing degree as compared with Germany. If the iron and steel industry appears to fit the thesis that declining entrepreneurial ability results from slower rates of growth of demand and output, what can one say of the British coal industry with its accelerating rate of growth of output

<sup>30</sup> P. Temin, "The Relative Decline of the British Steel Industry 1880-1913," in H. Rosŏvsky (ed.), Industrialization in Two Systems: Essays in Honour of Alexander Gerschenkron, (New York, 1966), quoted by Payne, op. cit., p. 97.

<sup>32</sup> A. J. Taylor in Aldcroft, Developing of British Industry. , p 45 See also his "Labour Productivity and Technological Innovation in the British Coal Industry 1850-1914," Economic History Review, 2nd series, XIV (August

1961), 48-70

<sup>&</sup>lt;sup>29</sup> P. I. Payne, "Iron and Steel Manufacture," in Aldcroft, Developing of British Industry. . p. 92, referring to T. G. Orsagh, "Progress in Iron and Steel: 1870-1913," Comparative Studies in Society and History, III, (1960-61), 228-29. There remains, of course, the "amazing neglect of British basic ores adaptable to the Thomas process" Payne, op cit., p. 89.

<sup>&</sup>lt;sup>31</sup> Payne, op cit., p. 98, commenting on Temin. This would appear to be a line of inquiry which could profitably be extended to other industries. Cf the attitudes of wool textile manufacturers on the efficacy of increased technical education in the face of high foreign tariffs and especially the importance of the McKinley and Dingley tariffs in the United States. Sigsworth & Blackman, op. cit., pp. 147-48.

and exports-a "great and continuous growth in domestic consumption eclipsed by the demand from overseas."33 It is, of course, true that in spite of surface appearances all was not well, for the productivity of British labor in coal-mining was, if still superior to Continental standards, falling as Continental labor productivity rose and moreover the fall was particularly marked in the older and long intensively worked coalfields such as Durham and Lancashire Fundamentally, it is argued, this was due to environmental conditions-especially the onset of dwindling returns in an old industry forced to dig yet deeper and to exploit narrower and more difficult seams, but there are also allegations of entrepreneurial failings-pits and firms too small and unable to enjoy the benefits of large scale operation; inattention to management techniques and a failure to halt falling productivity by using more mechanical methods of coal getting. The last point, however, provides an interesting comparison-for if British owners failed to mechanize and thus as entrepreneurs deserve censure, it is worth observing that before 1914 mechanical methods had made greater progress in British coalmining than in any country of Continental Europe.<sup>34</sup> Clearly in the light of well established declining labor productivity in a labor intensive industry and bearing in mind what was to happen subsequently, it can be argued that they should have been even further ahead, even allowing for the physical obstacles which existed and which made mechanization often a less self-evident proposition than it was in America. Yet the question remains-how do we judge the success of entrepreneurs? With rising net profits,35 expanding markets and output one might imagine that entrepreneurs in the coal industry, insofar as they lis-

<sup>88</sup> Ibid., p. 39

<sup>84</sup> Ibid , p. 56.

as Compare for example Mr. Richardson's highly relevant discussion of the criteria of entrepreneurial performance—"the pursuit of profit-maximization over a five-year period in competitive conditions and in a manner acceptable to society's general code of conduct." (Op. cit.; p. 277). A rising rate of profitability on capital in an industry still leaves the industry open to the criticism that the rate could have been higher if more effective techniques which would have reduced costs further, would have yielded higher maxima, but this seems rather unreasonable in an industry which "prospered in the years before 1914 as never before in the industry's history," in competitive conditions and to the benefit of royalty owners, shareholders, and miners and also made a substantial contribution to the country's balance of payments (Taylor, op. cit., p 41). Mr. Richardson's emphasis upon "competitive conditions" is of course important and at the risk of overloading further a critical paper, one might ask how often is it the case that the competitive situation in an industry is examined as a preliminary to judging the relevance of profitability as a criterion of entrepreneurial performance?

tened to their critics,86 paused and then wept all the way to the bank.

Electrical manufacturing in Britain was, of course, heavily dominated by German and American producers and thanks to this, "electrification in Britain was probably little delayed by weaknesses among manufacturers [which] were not crucial to the development of the economy."<sup>87</sup> It was certainly not British entrepreneurship which could be commended.

With this survey of British manufacturing industry-or at least a substantial and representative part of it-before us, can we still continue to generalize with such certainty about the characteristics of "the British entrepreneur" between 1870 and 1914? It is not simply that as between industries, British entrepreneurial performance was "patchy" and that the patchiness existed in "old" industries as well as "new," but that within industries (e.g., engineering, iron and steel, glass, wool textiles), there existed marked differences in performance between different sections and, within sections, between different firms. And if the diversity of experience appears even stronger than has hitherto been conceded, can we continue to accept generalized explanations about characteristics which, insofar as they amounted to "shortcomings" or even "failure," were so variously distributed? Professor Habakkuk's explanation, "it was the slow expansion of English industry which accounted for the performance of English entrepreneurs in the late nineteenth century,"38 seems even less convincing, as does the doctrine "Great generals are not made in time of peace; great entrepreneurs are not made in non-expanding industries,"89 but which industries, which markets, which entrepreneurs-what industrially is peace and what is war anyway, and is it true that the one is more conducive to entrepreneurial vigor than the other, and need all industries be equally at "peace" or "war" at the same time?

Similarly, can one accept generalizations about relative aggregate factor costs—"cheap" labor in relation to capital here, the reverse elsewhere—when entrepreneurial behavior in an industry takes place in particular contexts in which the proportions of cost attributable to labor and capital vary considerably as between different industries in the same economy during the same period?

se And clearly some did. Cf. Taylor's discussion of mechanization before 1914, pp. 55-60

<sup>&</sup>lt;sup>87</sup> I. C. R. Byatt in Aldcroft, p. 273.

<sup>88</sup> Habakkuk, op. cit., p. 213.

<sup>89</sup> Ibid., p. 212.

In an industry in which labor costs are a high proportion of total costs, cheap labor may well be a deterrent to innovating zeal embodied in capital investment40-but what about an industry in which labor costs are low in relation to, say, raw material costs? In the wool textile industry, for example, it can be argued that the high proportion which raw material costs bear to total costs of the product places a high premium upon the success or failure of an entrepreneur to buy and sell successfully in a notoriously fluctuating market. A badly timed purchase may far outweigh any cost improvement to be found by greater technological efficiency and judgment of the entrepreneur's success-the profitability of his enterprise, indeed his ability to remain in business at all, is therefore very much a question of his market acumen rather than the efficiency with which he deploys his labor force or adopts technological innovations 41 Indeed, the very success which he enjoys in the former capacity, demanding as it does very detailed knowledge of and attention to changing market conditions, may be at the expense of his other entrepreneurial functions.

It may also be the case that we pay too little attention to what precisely we mean by the costs of a product. Do we mean the costs incurred only by the manufacturer of a product or the final cost (i.e., price) to the consumer, for it is the latter which is relevant to the demand for the product and this will embody the distributive costs-wholesaling and retailing-over which the manufacturing entrepreneur may have no control, plus, in the case of some products-e.g., a large proportion of textile piece goods products-the costs added by subsequent industries making up the product into the final article for sale to the consumer. It may be that the final cost of the product to the consumer contains major elements over which the manufacturing entrepreneur is powerless. Thus, to take an example, a 10 percent reduction in the price of cloth to be used for men's suiting, would result only in a 5.3 percent reduction in the price of the suit to the consumer, if the making-up costs and wholesaler's and retailer's margins remained the same. 42 Let us look

<sup>40</sup> It is interesting to reflect on how the British coal industry would fit into a "cheap" labor argument related to the British economy.

<sup>&</sup>lt;sup>41</sup> Cf G. F Rainnie (ed.), The Woollen and Worsted Industry: An Economic Analysis (Oxford, 1965), p. 79 " technical efficiency in woollen and worsted processing has been heavily discounted in the past. The saving in capital or labour which new machines could effect was small compared with the losses which could be incurred especially in buying raw materials at the wrong time."

<sup>&</sup>lt;sup>42</sup> E. M. Sigsworth, "The Distribution of Wool Textiles" in G. F. Rainnie, op. cit., p. 123 See also A. P. Zentler & J. Gherson, "Cost Components of Wool Suits," London & Cambridge Economic Service, vol. XXIX, (August 1951).

for entrepreneurial failings by all means, but let us be clear about where we should be directing our attention. In the case quoted it would seem to be inappropriate to blame entirely the wool textile entrepreneur for a failure in the rate of growth of demand for his product, when its ultimate price may reflect only a half of a cost reduction which he attains in his own factory by the exercise of whatever aspect of entrepreneurial talent he can use. Clearly the situation varied very much between different industries, but it seems to be an area in which more research might profitably be undertaken. If, for example, developments in the wholesale and particularly retail trade of foodstuffs during the period helped to reduce prices to the consumer<sup>48</sup>—and incidentally provide an interesting example of a dynamic entrepreneurial vigor-what was the situation in the distribution of other products?44 Were they as well served, or better or worse and if so what did entrepreneurial activity in the distributive trades contribute to the success or failure of the manufacturing entrepreneur?

In the light of what has already been said about the divergence of experience in British industrial entrepreneurship, it will hardly be surprising that generalized quasi-sociological explanations of entrepreneurial behavior seem also to be equally as suspect as generalized economic explanations. What, for example, of the by now much quoted "constant" haemorrhage of ability from industry and trade into land ownership and politics?"<sup>45</sup> What seems to require explanation is the location and amount of bleeding and the direction of the flows—what about, for example, those from industry into trade, especially when retailing, wholesaling, banking, and commerce were economic activities expanding with greater rapidity than the total industrial sector?

The calculations here assume the most extended distributive chain and are based upon the prices for men's suits in the 1950s. I have no comparable data for the period 1870–1914 but the principle which is illustrated remains relevant <sup>48</sup> See P. Mathias' excellent book, *Retailing Revolution*, (London, 1967).

<sup>&</sup>lt;sup>44</sup> For a brief account relating to the retailing of other consumer goods, see J. B. Jefferys, *Retail Trading in Britain*, 1850–1890, (Cambridge, 1954), especially ch I It is astonishing how heavily dominated British economic history has been by the history of production, to the virtual neglect of distribution, the notable exceptions being the two works cited. As to the implications of the interrelations of production and distribution, this is a largely unexplored area of British economic history—whether oriented towards entrepreneurs or else-

<sup>&</sup>lt;sup>45</sup> Habakkuk, op. cit., pp. 190-91. It is important here to note that Professor Habakkuk seems to be expressing other writers' views rather than his own, though often he pays the penalty for vivid phrase-matching by being quoted as though this expressed his own view

Can one remain happy-if ever that were an appropriate emotion-with generalized explanations emphasizing the deadening weight of inherited family tradition upon enterprise, "clogs to clogs in three generations" or whatever translation of this item of folklore is on offer? As Professor Saul writes of the engineering industry, "evidence for it as a broad generalization seems weak. In the first place, one can so easily point to as many opposite examples, to generations of owners each receiving a more sophisticated training than its forerunner in any case relatively few engineering firms dated back before 1850, and in most trades entry was not difficult—even in one so well established as textile engineering."46 In this particular instance, generalization about British entrepreneurial characteristics has rested upon too limited a base. For some firms it obviously was a highly relevant consideration<sup>47</sup> but it is one thing to seize gratefully upon known examples of a phenomenon and another to regard them as being typical.

What do we know about the age structure of firms in British industries, the extent to which, for example, they were, during the period 1870-1914, first, second or nth generation? In the wool textile industry of the West Riding, analysis of the population of firms in existence in 1912 suggests the following picture 48

	No. of firms in 1912	% of firms in 1912 founded since 1870
Finishers	40	95
Dyers	124	87 9
Merchants	337	90 5
Woolen Manufacturers	439	68.4
Worsted Spinners/Manufacturers	184	77.2
Worsted Spinners	204	88.8
Worsted Manufacturers	237	92.0
Worsted Combers	53	92.5
Worsted Topmakers	20	100

Saul, op. cit., pp. 233–34.
 See Aldcroft, "Technical Progress and British Enterprise 1875–1914," Business History, VIII (1966). He states (pp. 135-36), ". . sweeping generalizations of this sort can be dangerous Still it is interesting to note that the really successful firms, or ones that retained their momentum, were those that were devoid of ancestral domination and/or prepared to let in outside talent ... But such conclusions must for the moment border on the speculative ... Nevertheless it is more than likely that future research will reveal a heavy preponderance of firms dominated by relatively unenterprising family cliques." Dangerous? Speculative? Read on. "The success of past methods, the diversion of entre-preneurial energy into outside activities, and the obsession of maintaining family connections caused many firms to continue to invest in static techniques in preference to exploiting the new technological possibilities which were being made available at the time." (My italics.) But how many?

<sup>48</sup> Sigsworth & Blackman, op cit, p 130

It is important to remember that here is an industry which could claim antiquity on any grounds but in which the population of firms underwent drastic change during the period, so that by its end few could trace their origins back before its beginning. This, of course, proves nothing about the "three generations" argumentfor that we still need data on the ages of the firms which disappeared from the industry. It does, however, suggest that while woolen manufacturing firms (31 percent of whom in 1912 had origins antedating 1870) were successful in meeting foreign competition, worsted manufacturing firms, only 8 percent of whom originated before 1870, signally failed to do so, i.e., in this case firms of recent origin were less successful than firms of greater antiquity 49 It suggests further that one really does need to look at the composition of an industry as a whole before attempting generalization 50 After all, two of the few full scale histories of British wool textile firms would suggest that the third and fourth generations of a family were able to continue the business without too much handicap, one being especially prominent in the extent to which it acquired landed estates and allied its members with titled families It should presumably have promptly bled to death 51

This preliminary study of the firms constituting the wool textile industry suggests a further general point applicable in varying degrees to other industries. The fact that a firm has survived from the nineteenth century, with a collection of archives sufficient to enable its history to be written, might in itself cause one to wonder about how "typical" its experience has been The more typical nineteenth century firm, at least in wool textiles, was one which for whatever reason went out of business. It is true, as Dr Hobs-

<sup>&</sup>lt;sup>40</sup> The apparently ephemeral characteristics of the population of wool textile firms 1870–1914 relates to an industry which met and in part overcame foreign competition successfully. The brewing industry suffered no such competition, yet in eight Yorkshire towns and cities there were few firms which were long-lived during the nineteenth century. Those which survived, and indeed continue to do so, were incidentally firms generally with the most deeply rooted family origins. See E. M. Sigsworth, "The Brewing Trade During the Industrial Revolution," University of York, Borthwich Papers No. 31 (York, 1967). Also the same author's "Science and the Brewing Industry 1850–1900," Economic History Review, 2nd series, XVII (April, 1965), pp. 536–50, for an appraisal of the industry's response to scientific discovery and its awareness of the value of scientific research.

<sup>&</sup>lt;sup>50</sup> It is a pity that Miss Charlotte Ericson's excellent book, British Industrialists, Steel and Hosiery, 1850–1950 (Cambridge, 1959) has had no real successors. <sup>51</sup> E. M. Sigsworth, Black Dyke Mills (Liverpool, 1958) F. J. Glover, "History of Messrs. Wormalds and Walker Ltd., Dewsbury" (University of Leeds, Ph.D. Thesis, 1959)

bawm writes, that bankruptcy became a diminishing risk during the period with which we are concerned 52 In passing, it seems extraordinary that the vast and highly controversial literature seeking to interpret British economic performance 1870-1914 and more especially that part of it dealing with "British entrepreneurship" ignores bankruptcy completely. It is, of course, difficult to interpret the precise significance of the annual returns relating to bankruptcy because of changes in the law, but to ignore a mass of evidence relating to the casualties on the field of battle, seems an odd omission in attempts to assess its outcome. If, for example as Dr. Hobsbawm argues, "Bankruptcy was, according to economic theory, the penalty of the inefficient businessman and its spectre haunts the novels of Victorian England," then the decline in the amount of bankruptcy during the thirty years before 1914 and the fact of decline in the average liability of the bankrupt, need explanation and at first sight do not seem to fit comfortably with generalized statements about entrepreneurial failing, for by this criterion, British businessmen seem to have been managing their affairs better rather than worse It also seems brilliantly perverse to use this evidence to conclude that "Freed from the spectre of sudden impoverishment and social ostracism-the very horror of bankruptcy is itself a symptom of its comparative rarity-the British businessman did not need to work much."53

Attention to the incidence of failure, its causes, and the characteristics of firms which went out of business would then seem long overdue.

There remain a number of general observations. The disadvantages which British industries faced as the result of having had an early start—the problems arising from the existence of a stock of industrial capital incorporating increasingly outmoded technology which entrepreneurs were reluctant to replace either because they were practicing inappropriate accounting policies in relation to

<sup>&</sup>lt;sup>52</sup> Op cit, p. 154-55. In presenting quinquennial averages of the estimated loss to creditors in England and Wales, he omits the amount of bankruptcy dealt with under Deeds of Registration Inclusion of these, while giving a less favorable view of the incidence of business failure still does not alter the fact that the sum of both amounts steadily diminished. Prior to 1869, "no materials exist for the facts," Comptroller in Bankruptcy, General Report. Parliamentary Papers, 1889, LXX, p. 3. In the light of this statement, Hoffman's index of bankruptcy must be viewed very cautiously (W. Hoffman, British Industry 1700-1950 (Oxford, 1955), pp. 154-55, 174, 301) The annual average loss to creditors 1869-1883 was £15.8 million with no available figure for bankruptcies dealt with by Deed of Registration. By 1904-1909 the comparable figure was £5.9 million.

depreciation, or because of the difficulties arising from the interrelatedness of capital equipment, have been well ventilated and diverse views expressed on the relevance of the early-start thesis to British experience 54 It is in any case, insofar as it purports to be a general argument, difficult to fit to the diversity of British experience in different industries. Whilst there seem to be pertinent examples, the railways and to a less extent cotton, where there existed interrelatedness and especially problems of differing ownership of related equipment arising from the pattern of integration, it has been doubted that the early-start thesis is an adequate explanation because, for example, German and American industry were generally at much the same level of technological attainment at the beginning of the period and would therefore have been likely to have encountered the same sort of problem, yet in their cases with success. 55 It is a persuasive counterargument. There is, however, an aspect of the early-start problem which seems so far to have gone unnoticed-that is, the changing structure of advanced economies. As economies industrialize, then generally the industrial sector grows as the agricultural sector dwindles, followed then by a growth in the service or "tertiary" sector of the economy. It seems clear that both of these phenomena were well advanced in Britain by 1870 and more so than in either Germany or the United States. 56 The trade, transport, professional, and service sectors in Britain grew faster between 1870 and 1914, and at any time during that period represented a higher proportion of resources employed in Britain than in Germany or the United States. This surely is an important aspect of Britain's earlier start on the growth path, and the faster rate of growth of this sector in Britain-faster than industry, faster than comparable sectors elsewhere-may well have attracted resources, entrepreneurial as well as labor and capital, which might otherwise have gone into industry, representing not so much that famous "haemorrhage of ability" from industry, but rather the starvation of industry of talent which might otherwise have been available. In this sense, if for no other, Britain's earlier

<sup>&</sup>lt;sup>54</sup> See especially Aldcroft, "Technical Progress and British Enterprise 1875–1914," Business History, VIII (1966), 123, no. 1 for the earlier literature on this topic

<sup>&</sup>lt;sup>55</sup> Ibid , p. 124

<sup>&</sup>lt;sup>56</sup> For comparative data, Colin Clark, The Conditions of Economic Progress, (London, 1957) pp. 510-20. These, of course, are in terms of labor employed and as such open to various criticisms. Cf. C. P. Kindleberger, Economic Development (New York, 1958), esp. p. 112. British experience is outlined in P. Deane and W. H. Cole, British Economic Growth 1688-1959, (Cambridge, 1964).

start may still be relevant to explanations of entrepreneurial behavior in the *industrial* sector. This can be no more than putting yet another hypothesis into an already crowded ring but if it really is entrepreneurial history (i.e., that of "the British entrepreneur") which is in question we should surely look not only at the industrial sector of the economy, but at other sectors offering the opportunities for the exercise of business talent and consider the implications for the former of a more rapid growth rate in the others—particularly, during this period, in trade, commerce, and services

A last point may be made. There were, it seems, discernible in the British economy a number of trends which suggest a slowing down in the rates of growth of key variables such as industrial output and exports. Yet these, available in all their elaboration to historians now reflecting upon the development of the economy 1870-1914, were, it must be remembered, unavailable at the time<sup>57</sup> and even had they been, then it must also be allowed that their bases and the interpretation to be placed on them are still in dispute amonst economic historians 58 In particular, the Hoffman index of industrial output has been roughly handled, and yet this still occupies an important place in the literature. Much of the success of entrepreneurs depends, over a period of time, upon their ability to anticipate change, and it may be true that in Britain, entrepreneurs' "time horizons" were peculiarly short compared with their counterparts abroad 59 Yet there are two sorts of anticipation and judgment required-one about the future long-term trends relevant to one's activities, one about the more immediate effects of short-run fluctuations in the economy. To be sure such cyclical fluctuations affected German and American entrepreneurs as well as British, and what is being said here is not therefore an attempt to explain differences in their behavior Rather is it to suggest that in attempting, as historians, to understand businessmen's past activities, we should allow more fully than we do for the factors affecting the behavior which we are attempting to explain, as it took place in the immediately relevant circumstances of the time British entrepreneurs between 1870 and 1914 did not,

<sup>&</sup>lt;sup>57</sup> To labor the obvious the earlier in the period one is concerned with, and the further back on the trend curve one goes, what is now seen as a historical trend was then an unknown future quantity.

<sup>&</sup>lt;sup>68</sup> See for example C Wilson, op cit., for one of the many criticisms of Hoffman's indices.

<sup>&</sup>lt;sup>50</sup> Cf. Aldcroft, "Technical Progress and British Enterprise 1875-1914," Business History, VIIII (1966), 122-29. But again, which entrepreneurs, given the diversity of industrial experience?

after all, have the advantage of being able to consult the Economic History Review. What were they to make of their experience of business in, say, 1875 or 1884 or 1890? At the two former dates might they not be excused for preoccupation with the malign effects of the short-run cycle upon their affairs? Again, the nearer to 1914 one draws, the less weight can be placed upon this factor and the more one might expect the astute businessman to discern the longer term trends at work, but then it would seem that by the time one arrives at about 1900, such awareness was more widespread and a greater degree of success was being enjoyed.

<sup>&</sup>lt;sup>60</sup> The depression of the mid-1870s was especially severe, particularly when viewed against the exceptionally high activity of the early 1870s, but the phenomena of the cyclical depression were familiar enough to British businessmen and they might well be excused for having thought that their difficulties in the mid-1870s and subsequently in the mid-1880s were relatively short-run and repetitive of what they already knew—which of course they were