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Business Strategy and Firm Performance: the British Corporate
Economy, 1949-1984

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Business Strategy and Firm Performance: the British Corporate Economy, 1949-1984

Abstract

There has been considerable and ongoing debate about the performance of the British economy since 1945. Empirical studies have concentrated on aggregate or industry level indicators. Few have examined individual firms' financial performance. This study takes a sample of c.3000 firms in 19 industries and identifies Britain's best performing companies over a period of 35 years. Successful companies are defined as a) those that survive as independent entities, b) that outperform peer group average return to capital for that industry, and c) that outperform other firms in the economy according to return on capital relative to industry average. Results are presented as league tables of success and some tentative explanations offered concerning the common strategies of successful firms. A broader research agenda for British business history is suggested.

Introduction

This paper presents the results of a survey into the profitability of the British corporate economy in the four decades following the Second World War. Its objective is to present an empirically rigorous analysis of the most successful long run performers and at the same time aims to discover meaningful trends about the relationships that underpin such success. An innovative aspect of the survey is that it uses accounting data to assist in the search for systematic aspects of corporate success.

There are several reasons why this study is potentially important. Previous surveys have concentrated on identifying the largest firms, either at a point in time or via a series of cross sectional comparatives.¹ Whilst useful for examining the changing structure of corporate economies, if the objective is to measure the relative success of companies and the strategies pursued by their managers, then size alone does not necessarily equate to success. Growth, for example, may be seen as fulfilling the objectives of managerial capitalism but at the expense of agency and or transaction costs borne by shareholders or rents borne by customers or suppliers.² Substituting an alternative single measure such as profitability does not necessarily reconcile these stakeholder issues. Nonetheless, it provides new perspectives on the performance of the corporate economy. Profit, unlike size, is more readily compared through time. As a measure of success, profitability does not necessarily rule out the large numbers of smaller firms that may represent the more dynamic sectors of the economy. These firms may typically include the family firms and networked organisations highlighted as alternatives to Chandler's big business dominated paradigm.³ In analysing profitability, this survey borrows methodologies employed by two of the authors elsewhere in their analysis of the Lancashire cotton textile industry. These studies have attempted to identify the features of successful enterprises and the financial constraints imposed by varying systems of governance.⁴ Unlike the investigations into the Lancashire cotton industry, the present survey aims to explore possible relationships between profitability and business strategy beyond the confines of a single industry.

The remainder of the paper is structured as follows. In the next section there is a description of the data set. The methodological problems associated with using accounting data in surveys of this kind and the strategies used to overcome them are also discussed. A further section discusses the implications of the preliminary results for further research and finally some tentative conclusions are drawn.

Data and Data Analysis

Data for the survey were obtained from the Cambridge University/ DTI Companies Database (CDCD).⁵ The database contains the accounting records of the constituent public limited companies (PLCs) for the period 1949 to 1984. It should be stressed at this stage for the purposes of subsequent discussion that private firms and hence small family businesses are therefore excluded. The average number of companies included is 2219 per year across 25 industries. Companies enter or leave the database depending on time of incorporation, transfer to PLC status, take-over, liquidation etc. The total number of company/years on the database is over 66,000.

For the purposes of this analysis, successful companies are defined as a) those that survive as independent entities, b) that outperform peer group average return to capital for that industry, and c) that outperform other firms in the economy according to return on capital relative to industry average. Accordingly, to be included in the list of companies for further analysis, a company had to appear on the CDCD database continuously during the period 1950-1983.⁶ This method is appropriate because survival is clearly an attribute of long run success, especially in an economy that became characterised by take-over and merger activity and also the threat to vulnerable firms posed by the recession of 1980-1. Moreover, the sample size became more tractable, reducing to 182 companies. This in itself is a commentary on the instability of the British economy during the period. Of 3011 quoted companies trading in 1950, only 6% of them were still trading as independent organisations in 1984. For these surviving companies, relative success was measured by underlying accounting profitability. This was defined as return on capital employed (ROCE) or profit before interest and taxation

divided by capital employed. In turn, capital employed is defined as long term liabilities plus shareholders equity.

There are several potential objections to using this approach. The first is that ROCE is unrelated to underlying economic profit, or internal rates of return (IRRs). Whether or not ROCE reflects economic profit, in performance measurement another problem is that cross sectional differentials in ARR may reflect entry barriers and local monopolies rather than superior corporate performance *per se*.⁷ Nonetheless, in the context of business history research, the creation of entry barriers may be the consequence of successful entrepreneurship. This objection to the use of ROCE is overcome, therefore providing linkages between process and performance outcome.

Some distortion may also arise from the impact of inflation on the revenue streams and asset bases that form the numerator and denominator of the ROCE ratio. It was for this reason, amongst others, that the debate about declining profit rates in the 1970s proved difficult to resolve.⁸ As far as the current survey is concerned, although historical cost figures are used throughout, they are applied uniformly and consistently across the whole sample. The selection of accounting policies by management, for example depreciation charges, will also lead to divergence from the IRR, especially where asset growth rates differ. There is considerable US evidence of systematic cross sectional variation in accounting policies, particularly with respect to depreciation.⁹ For these reasons, there has been a considerable debate as to whether ROCE can be relied upon at all.¹⁰

In view of these problems, reliance on historical cost based ROCE needs to reflect several considerations. One is the extent to which ROCE is used by the decision-makers whose behaviour is being analysed. ROCE remains, as Whittington suggests, 'the rule of thumb to which decision-makers cling' partly because whether accurate or not, it remains the only practical proxy.¹¹ A second consideration is that much of this literature objects to the use of ROCE as a proxy for economic rates of return in competitive equilibrium or under conditions of monopoly,¹² neither of which necessarily apply in any or all of the industries analysed in the current survey. Also discrepancies caused by the adoption of differing

accounting policies tend to even out through time. Thus the likelihood of measurement error in ROCE is mitigated as the length of time of measurement increases.¹³

Bearing in mind theoretical objections to the implied relationship between ROCE and IRR, for the purposes of empirical work the proxy may be still suitable where certain conditions are met.¹⁴ One condition is that in a regression of ROCE and IRR, the cross sectional errors are likely to be unsystematic. For a large sample of companies, in different industries, across a number of years it is expected that this would be the case. Similar arguments apply to the objections that the effects of inflation and variation in accounting policies distort the ROCE. Finally, even if ROCE does not proxy accurately for IRR, in comparative analysis it is sufficient that the two measures are correlated.

A final and important methodological issue in the use of these ratios arises from their statistical distribution. It is generally believed that ratios such as ROCE have non-normal cross sectional distributions.¹⁵ Consequently, it is very likely that if a sample of firms is compared across several years, at least some of the sample firms will record levels of ROCE beyond the range of a normal distribution. If ROCEs are to be compared through time, it is likely that some companies will have their averages distorted by the inclusion of large positive or negative atypical values.

To summarise these arguments, theoretical and empirical caveats are more likely to apply in cases where ROCEs are used to analyse firm performance in single industries or over a limited time horizon. Concerns about systematic distortions to ROCE in terms of accounting base or accounting policy are less relevant in studies that use data from a wide cross section of 19 industries. As far as possible, potential causes of measurement error, for example variation in depreciation policy and growth rates, should be quantified and controlled for in the empirical tests. The likely non-normality of the distribution remains an important potential problem because outlying observations can have a magnifying impact on the results of individual firms.

Bearing these methodological issues in mind, particularly the last point, further steps were taken to avoid the potential distortions arising from the use of ROCE. To begin with,

average ROCE scores for the years 1950-1983 were computed for the 182 companies that traded continually during that period. However, because levels of profitability were likely to be industry dependent, relative ROCE scores were also computed. These were calculated by subtracting the industry average ROCE for the period from the individual ROCE score for each company. The result is hence an excess return (ER) measured against an industry average hurdle rate. Industry averages were computed with reference to all the firms in the original sample rather than those companies in the reduced sample of survivors. Although this provided a ranking of firms according to a generally accepted profitability yardstick, it was clear that in crucial cases there were non-normality problems. The Thomson Organisation, which was the best performing company at this initial stage, exemplifies the case for further analysis. However, it achieved its position as a result of extraordinary returns of 281% in 1981 and 203% in 1982 and their disproportionate influence on the long run average ROCE. A possible strategy in some disciplines for dealing with outlying observations would be to normalise the distribution or even remove them from the distribution of returns altogether. However, for the business historian such extreme cases represent potentially interesting case studies.¹⁶ To control for the effects of outlying observations without modification or removal, the sample was subjected to a second non-parametric test of performance. For each year, commencing in 1950 through to 1983, the companies were ranked according to excess return. Each company was allocated a score between 1 and 182 according to its position for that year. Ranks were then summed for each company by firm for all years to obtain an aggregate rank score. Hence, low scoring companies would be those that consistently outperformed during the period. In contrast, a high ER might reflect abnormally strong performance in one or two uncharacteristic years.

These processes produced two league tables of best performing companies, one reflecting performance by rank score and the other by ER. Because they measure different aspects of performance, at least in so far as the underlying data is non-normally distributed, these were aggregated into one table using a simple average of the positions in the separate tables. This also allows for a certain economy of presentation. Table 1 sets out the overall

rankings of companies that resulted from this process. The first numerical column shows the rank score, that is, the sum of the ranks for all years, followed by another column showing aggregate rank achieved as a result. The next column shows the aggregate ER for 1950-1983 for each company and a further column shows the resulting ranking. The final column takes the simple numerical average of the two columns. As the sum of ranks was considered to be the stronger of the two tests, ties were resolved with reference to the rank score column. Also, because some firms were perhaps good performers but in weak sectors, Table 2 shows the best performing firm from each industry sector, using the same data as Table 1. The left-hand column refers to the overall position of the company in the data used to construct Table 1. For the purposes of the discussion below, the focus is on the best performing companies. Table 1 therefore shows the overall top 20 and Table 2 shows the top firm in each of the 19 industries analysed. Details of all 182 companies, calculated according to the methodology for Table 1, are shown in Appendix 1.

Table 1: Britain's 20 Best Performing Companies, 1950-1983, Overall Ranking

Position	Company	Industry	Rank Score	Rank Rank	ER Rank	Comb Rank
1	Ellis & Goldstein	Clothing & Footwear	36.382	18	6	24
2	Grattan Warehouses	Retail	42.941	25	4	29
3	WOLVERHAMPTON & DUDLEY	Drinks	16.324	3	28	31
4	Wagon Ind. Holdings	Vehicles	56.882	33	1	34
5	Goldberg and Sons	Wholesale	46.706	29	5	34
6	Initial Services	Services	46.676	28	7	35
7	Dowty	Vehicles	57.206	34	2	36
8	HEINZ (H J) CO	Food	9.500	1	35	36
9	Coates Group	Chemicals	45.353	27	10	37
10	Telephone Rentals	Transport	48.353	30	8	38
11	Matthew Hall and Co	Metal Goods	44.029	26	12	38
12	Glaxo	Chemicals	49.618	31	11	42
13	BTR	Other Manufacturing	40.618	24	20	44
14	BASSETT (GEO) HOLDINGS	Food	20.765	6	40	46
15	Macmillan Bloedel Containers	Paper	29.676	13	36	49
16	Thomson Organisation	Paper	64.559	47	3	50
17	FH Tomkins	Metal Goods	61.559	37	13	50
18	Tesco	Retail	62.412	39	14	53
19	JH Fenner & Co	Engineering	52.353	32	22	54
20	Smith and Nephew	Textiles	62.559	40	15	55

Notes: Companies are shown in order of lowest combined rank. Ties are resolved with reference to rank scores.

Sources: Calculated from CDCD data.

Table 2: Britain's Best Performing Companies by Industry Sector, 1950-1983

Overall Position	Company	Industry	Rank Score	Rank Rank	ER Rank	Comb Rank
1	Ellis & Goldstein	Clothing & Footwear	36.382	18	6	24
2	Grattan Warehouses	Retail	42.941	25	4	29
3	WOLVERHAMPTON & DUDLEY	Drinks	16.324	3	28	31
5	Goldberg and Sons	Wholesale	46.706	29	5	34
4	Wagon Ind. Holdings	Vehicles	56.882	33	1	34
6	Initial Services	Services	46.676	28	7	35
8	HEINZ (H J) CO	Food	9.500	1	35	36
9	Coates Group	Chemicals	45.353	27	10	37
11	Matthew Hall and Co	Metal Goods	44.029	26	12	38
10	Telephone Rentals	Transport	48.353	30	8	38
13	BTR	Other Manufact.	40.618	24	20	44
15	Macmillan Bloedel	Paper	29.676	13	36	49
19	JH Fenner & Co	Engineering	52.353	32	22	54
20	Smith and Nephew	Textiles	62.559	40	15	55
30	London Brick	Brick	62.294	38	29	67
31	Yarrow & Co	Shipbuilding	82.029	61	9	70
38	CARRERAS	Tobacco	26.941	10	69	79
52	A Monk & Co.	Construction	76.794	55	56	111
64	Hoover	Electrical Eng.	83.147	63	70	133
82	May and Hassell	Timber	120.147	131	24	155
89	Birmid Qualcast	Metals	90.029	74	98	172
91	Allied Leather Industries	Leather	98.912	88	85	173
198	Sir Isaac Pitman & Sons	Paper	162.559	192	196	388

Notes: The table shows the best performing company in each industry sector. Companies are ordered according to combined rank position.

Sources: Calculated from CUDC data.

Discussion

This research is exploratory and empirically driven. The discussion that follows is therefore a suggested research agenda and an attempt to draw only the most preliminary conclusions. Nonetheless, it is useful to consider explanations for success in selection of cases from Tables 1 and 2.

The results from Tables 1 and 2 suggest that Ellis and Goldstein was Britain's most successful company in financial terms between 1950-1983. A brief outline of its history suggests several potential insights into the workings of the corporate economy. Formed in 1910, Ellis & Goldstein (E&G) successfully operated in the womenswear sector (coats and costumes) of the textiles clothing industry that flourished in the East End of London. Although up to the 1930s the firm subcontracted a significant proportion of its manufacturing to 'outdoor' workers, increasingly this was brought into factories that E&G rented, albeit with subcontracting groups still being paid as if working 'outdoors'. By the Second World War, they had three factories working on this basis, as well as a number of workshops, all of which were kept operational in spite of rationing, the Blitz and shortages. After the War, they decided to diversify into lighter clothing and separates, opening new factories in North Shields and in Kent, as well as a showroom in Well St, central London, marketing their brandnames such as *Elgora*, *Elgee* and *Eastex*. Their success, however, would appear to have been based on intimate links with major retailers that kept the factories and workshops extremely busy. The most important of these initially were C&A, Selfridges, and D.H. Evans, while by the 1970s the links had been extended to the highly influential Marks & Spencer, Next and British Home Stores. Once the *Laura Lee* brandname had been added to the range in the 1950s, E&G established a wide reputation for its womenswear that acted as the basis of its commercial success. Some acquisitions were made in the 1950s (Bent & Son Ltd), funded almost entirely from reserves,

while further factory extensions were made in 1965 (in Stockton-on-Tees), the keys to success would consequently have been effective control over design and production, successful marketing through established brandnames, and working closely with major retailers to ensure a reliable supply of orders. By the 1980s, E&G had also opened its own leisurewear shopping chain, Dash. They also had to adapt their product range (to include by the 1970s coats, suits, dresses, skirts, slacks, knitwear and sportswear).to major fashion changes, given that womenswear was extremely vulnerable to these pressures.¹⁷

As the above review suggests, Ellis and Goldstein was built on strong, tightly focused brands. The 'Eastex' and 'Dash Leisurewear' brands allowed the company to build reputation for quality. Selling to niche markets, these offered profile but low vulnerability to rent rises. However, strong brands made the company attractive to predators and the company was taken over by Alexon in 1988. After the take-over, Alexon management over-extended the Dash brand by opening too many shops in high rental locations. Eastex, meanwhile, remained 'the jewel in the crown' with 'the most amazing customer allegiance, probably because there is no direct competition'.¹⁸ Thus, brand-based strategies offered potentially profitable alternatives to growth orientation and cost leadership through economies of scale.

Another overall top 20 company, Smith and Nephew, also based its strategy on a niche within the textile industry, in this case bandages and specialist industrial clothing. At the beginning of the period the company was predominantly a health care business and integrated backwards into textiles to secure supplies for the production of specialist medical, surgical and sanitary textiles. Such integration predated the rationalisation of the textile industry by of the 1960s, thereby allowing S&N to buy up businesses cheaply, such as Brierfield Mills, install up to date equipment, and secure

economies of scale through continued capital investment.¹⁹ During the 1960s the company controlled wage costs by setting up production facilities via its 'commonwealth development plan' in countries such as New Zealand and South Africa.²⁰ Throughout the 1960s and 1970s the company benefited from the expansion of the National Health Service and simultaneously expanded its brand profile. Some mistakes were made, for example the expansion into beauty and cosmetics via the acquisition of Gala and the relatively poor performance of brands such as Mary Quant and Miners. Even so, the core brands such as Elastoplast and Nivea, recorded steady progress, representing the core portfolio of a well-focused business. The company benefited from good City connections notwithstanding its original regional base and developed incentive plans to align managerial and investor interests from the mid 1960s.²¹

Thomson, positioned 16th overall (table 1), owed its success to the entrepreneurial control of Roy Thomson. His strategy was expansion of the firm's base of the *Sunday Times* (including *The Times* from 1967) newspaper through integration of other regional, trade and technical newspapers and related diversification into new media such as commercial television. He used financial control to manage the growth of the business effectively overseeing a number of acquisitions that enhanced the cash generation potential of the business, and commented 'I would sooner take a balance sheet home to read than a book'.²² Thomson's string of successful acquisitions boosted profits to record level in 1964.²³ Meanwhile he improved production efficiency and market appeal by investment in a new plant away from Fleet Street using young non-union labour adopting US style multi-coloured web offset litho printing processes and computerised typesetting.²⁴ Such investments gave Thomson an advantage that would take the rest of Fleet Street

20 years to realise. Meanwhile from 1965 the firm began a strategy of expansion into educational services and publishing through new acquisitions underpinned the organisation's ambition to serve the broader social and economic life of the nation.²⁵ From Thomson's point of view the downside of the acquisition strategy was that it also acquired unionised workers, notably at *The Times* and the company was increasingly embroiled in industrial disputes in the 1970s, culminating in a prolonged stoppage at Times Newspapers in 1980 and the subsequent sale of the division. Although profitability was damaged in publishing interests, the diversification strategy yielded counter-balancing profit opportunities particularly in travel and North Sea oil exploration.²⁶ Success associated with continued acquisitions in these areas helped maintain Thomson's strong profitability record into the 1980s

Focusing on the design, engineering and manufacture of vehicle body structures for the European automotive industry, Wagon Industrial Holdings has expanded significantly from its initial base of railway freight wagon repair through a process of diversification, acquisition and international expansion. Formed in 1918 by a group of railway freight wagon manufacturers, what was until 1974 known as Wagon Repairs Ltd prospered as a result of abundant orders from its creators. It went public in 1936, at which point several other wagon repair and manufacturing businesses were absorbed into a larger operation based in Birmingham. As a result of railway nationalisation in 1946, their business declined, prompting management to initiate a diversification strategy that saw them move into office furniture and retail storage through the acquisition of Handy Angle Co in 1951. By 1979, the railways repairs business had been sold, with the funds invested in the development of automotive components manufacturing. In 1980, they also purchased the French company Vinco, to boost its office furniture business. By 1988-89, WIH had also

acquired several French, Spanish and German precision engineering firms to bolster further its successful automotive components business. It was a story of adaptation, diversification and acquisitions that ensured WIH would continue to generate solid returns.²⁷

Although originally a New Zealand-based firm specialising in dried milk, by the 1920s what had been known as Joseph Nathan & Co. became better known by its brand-name, Glaxo. It was also during this period that the firm diversified into vitamins and related areas, while by 1935 they had opened a laboratory to investigate proprietary pharmaceuticals. As a result of disagreements between the London and Wellington branches of the Nathan family, the former asserted greater control, resulting in the creation of Glaxo Laboratories Ltd in 1935 as the base for the new pharmaceutical businesses under a bright young chemist, Harry Jephcott. Using a combination of extensive internal research and development programmes and acquiring licences from American firms for promising new drugs, Glaxo prospered during and after the Second World War, building a range of products that were highly regarded. Jephcott, however, was well aware of the overwhelming competitive pressures from much larger American pharmaceutical firms, prompting him to acquire one of Glaxo's major British competitors, Allen Hanbury, in 1958, and Evans Medical Ltd in 1960. In 1971, Glaxo also attempted to purchase Beecham's, one of the UK's leading pharmaceutical firms, but this was blocked by the government. Size alone, on the other hand, was no defence against competitors; the key was developing commercially-viable drugs that would sell globally, a strategy that Glaxo pursued relentlessly throughout the post-war era, but especially under Alan Wilson as chairman from 1963 and Paul Girolami as finance director from 1968. This was complemented by building a more robust marketing organisation, as well as the

construction of manufacturing plants in France and Germany, reflecting the switch from the Commonwealth to Europe as the mainstay of Glaxo's sales. This was followed in 1978 by the acquisition of Meyer Laboratories, a small American pharmaceutical firm that provided Glaxo with an entrée into the enormous US market. The key to Glaxo's success, however, was the production of highly successful drugs such as Zantac, an anti-ulcerent, which was launched in 1981, which placed the firm second behind Merck in terms of global sales, with substantial income emanating from the US market. The keys to success would consequently appear to have been significant investments in R&D, robust marketing and acquisitions and investments in Europe and the USA.²⁸

Founded in 1929 by market trader Sir Edward John Cohen Tesco has experienced phenomenal success in the UK overtaking Sainsbury's as the UK's largest supermarket in 1995 and controlling an estimated 12.5 % of the total retail market in the UK by 2004. Having developed a strong UK core business, Tesco rapidly expanded overseas from the mid 1990s onwards, favouring a strategy of acquisition predominantly in Asia and Eastern Europe.

Inspired by the American model of the supermarket, Cohen opened the UK's first self-service grocery shop in St Albans in 1948. During the 1960s Tesco expanded across the UK through the acquisition of small grocery businesses, at the same time diversifying into the non-food sector with its Home'n'Wear range. Following a deal with Esso, Tesco began to open petrol stations alongside its superstores from 1974 onwards. However, the 'pile it high, sell it cheap' strategy adopted by Cohen was no longer fashionable among a more discerning public. In an effort to shed its 'cheap' image, Tesco closed a number of unprofitable stores, modernised others and throughout the 1980s focused on developing large, out-of-town stores selling a range

of food and non-food items. This strategy was reversed to some extent in the 1990s, as planning permission for large stores became less easy to obtain. Alternatively, Tesco Metro and Tesco Express stores were introduced in high streets and city centres, while large Tesco Extra stores stocked a growing number of non-food items including the American 'Cherokee' clothing range, electrical goods, books, newspapers and CDs. It was during this period that Tesco began to expand internationally, purchasing the Lotus chain in Thailand in 1998 and acquiring a number of hypermarkets in Poland from the German-based company HIT. Following a deal with the Royal Bank of Scotland in 1997, Tesco began to diversify into financial services, becoming one of the fastest growing providers of personal financial services in Europe by 2003. The extraordinary success of Tesco would appear to have been achieved through a process of diversification into different sectors, formats and markets while maintaining a focus on its core UK business which continues to generate around 80% of the group's profits.²⁹

As Tables 1 and 2 suggest, when profitability is the criterion of success, smaller firms tend to perform well. Other surveys within the time frame of the current study have suggested an inverse relationship between size and profitability.³⁰ Nonetheless in a long-run study it might be expected that this would not necessarily be the case. If quoted companies post high profits, capital would be attracted to those companies, offering management the option of growth backed by cheap funds. Why then did the management of Ellis and Goldstein and similar companies not turn their consistently high profits into growth opportunities? The answer undoubtedly lies in the system of corporate governance. Management may have been prevented from growing the firm by limitations of demand in core markets. While diversification may have been possible in these circumstances, this would be penalised by an efficient capital market. Under such constraints, management would have little choice but to pay their profits to shareholders as dividends. Alternatively, if demand in core markets was

not restricted or the capital market was inefficient, management may nonetheless have faced pressure for high dividends, notwithstanding the profitability of available investment opportunities. Either way, especially in the light of the accusations of short-termism levelled at the British financial system, the issue of dividend policies requires further research.

Chandler has argued that the family capitalists who controlled British industry tended to view their businesses as estates that generated income for dividends. Ever since publication of *Scale and Scope*, the dominant issues in business history on both sides of the Atlantic have been concerned with business size and the ways in which managerial hierarchies evolved to solve the problems posed by growing scale and complexity of modern business organisation.³¹ Indeed, as far as comparative analyses are concerned, it has been the speed with which Britain sought to emulate the American lead which is thought to have been central to the different economic successes of the manufacturing sectors in these two economies until the eve of the Second World War. Apart from one or two notable exceptions such as ICI, Unilever and British Petroleum, Chandler's overall assessment of British manufacturing is damning:

'The general failure to develop organisational capabilities weakened British industry and with it the British economy...the failure to consolidate industry-wide federations into modern industrial enterprises...meant the lack of effective enterprises to rationalise industries by investing in state of the art facilities and developing the skills essential to exploit the economies of scale and scope...the failure to develop competitive abilities resulted in high economic and social costs in terms of rate of return on investment and of employment. On the whole British industries benefited far less from technological innovation than those of the United States and Germany in the years before World War II'.¹⁶

Fundamentally, the reason why Britain failed was because the bulk of her manufacturing firms failed to make the necessary 'three-pronged' investments in production, distribution,

and management.³² Of course, as Chandler himself noted, the need and the incentive to make these investments varied across industries and between sectors of the economy.³³ Crucially, however, because these investments are thought central to the emergence of the biggest manufacturing firms, Chandler limits his analysis to the two hundred biggest firms in the USA, Great Britain and Germany. Such companies were located in the ‘core’ industries of these economies from the later nineteenth century until the 1940s.

There are a number of perspectives by which the growth of large firms in these industries can be considered successful. Firstly, by *definition*, the biggest companies were necessarily the most successful in overcoming the problems posed by growing scale and complexity of manufacturing and distribution facilities. Secondly, because manufacturing was by far the biggest sector in these economies [not sure about this, as Services well over 50% of GDP by 1960s; key issue is high level of concentration in manufacturing sector – see Hannah, who says that by 1970s CR100=42%] during the period in question,³⁴ it follows that the biggest two hundred companies in manufacturing had a disproportionate influence on the economy as a whole. Finally, of course, growing aggregate concentration (as distinct from *market* concentration) has meant that the significance of the biggest companies has grown through time. However, we are concerned to show that over-reliance on the dominant paradigm may be misleading when alternative measures of corporate success and alternative time periods are considered. Our justification for advancing this perspective is two-fold. Firstly, it does *not* follow that the biggest companies (and, by definition, those most successful at making the ‘three-pronged’ investment) were also the most profitable. Secondly, while concentration on the manufacturing sector has considerable merit in the pre-1945 period, in the post-1945 period, de-industrialisation, especially pronounced in the UK, has meant the manufacturing sector has become less important. Each of these points is developed below.

Bearing these considerations in mind, it is interesting to speculate on the potential impact of profitability analysis on the major paradigms in Business History. Chandler’s

framework as outlined above is the obvious place to begin.³⁵ Two propositions are worth exploring:

P1: Chandler's paradigm requires fundamental revision due to the fixation with size and the failure to consider profitability.

P2: Chandler's paradigm is broadly correct, but requires modification to incorporate profitability and its cash flow consequences within his comparative framework.

For *P1* to be true, it would have to be accepted that profitability is a sufficient yardstick for international corporate competitiveness. The objection to this view is that profitability reflects country-specific conditions, for example local entry barriers or monopolies that may do nothing to enhance international competitiveness. On the other hand, the creation of such barriers, for example niche marketing in response to import penetration, represents a sensible yardstick for entrepreneurial activity. A further objection is that profitability may be a barrier to growth through the iterative relationship between firms and capital providers. Higher profits suggest success, but also raise the opportunity cost for further investment, particularly where profits are a function of risk rather than monopoly. The higher cost of capital in the UK relative to international competitor economies has been cited as a reason for its relative inefficiency.³⁶

This argument takes the discussion beyond the scope of the Chandler paradigm, but it is perhaps suggestive of the revisionist approach of *P2*. Capital markets play a crucial role in the allocation of capital in a modern economy. In theory at least, profitability signals to investors the desirability of capital allocation across firms and industries. However, it is necessary that these processes are carried out efficiently. Very little research has been carried out in this area, although one survey has shown that for the cotton industry in the 1950s and 1960s there were considerable allocative inefficiencies.³⁷ Moreover, government fiscal policy can have distorting effects. More importantly, if an economy or sector demonstrates the

features of Chandler's 'Family Capitalism', it is unlikely that the capital market will demonstrate efficient attributes. Family members cannot discipline management by exiting their investments without diluting their controlling shareholdings. They may also lack the ability to control managers at general meetings through want of technical and financial expertise, especially where block holdings are passed from one generation to the next. At the same time, passivity and the presence of family block holdings creates an illiquid market for shares. In these circumstances shareholders can only generate income from their investments by demanding dividends. Thus, companies can be profitable but at the same time prevented by their governance structures from making investments in scale and scope economies.³⁸ This view is consistent with, but not fully explored by, the dominant paradigm.

As far as profitability is concerned, the defenders are remarkably quiet. So too are others who have developed and applied Chandler's analysis of corporate capitalism in the context of British institutions after 1950.³⁹ We find this surprising on a number of grounds. Although these authors are aware of the importance of the profit motive to the creators of big business,⁴⁰ nowhere do they establish precisely how exploitation of economies of scale and scope benefited the profitability of big firms. Nor, indeed, does he undertake a comparative analysis comparing the profitability of firms undertaking the 'three pronged investment' with those that did not. Previous work by the authors has shown that firms making the three-pronged investment did not necessarily achieve superior profitability.⁴¹

The failure to explore the issue of profitability further is all the more surprising because a wealth of literature is available on the structure-performance relationship, which was the dominant paradigm in industrial economics for many years. Given the emphasis placed upon company size and the first-mover advantages available to firms which most eagerly sought to exploit economies of scale, it seems odd that a potentially important indicator of the presence of these economies, ROCE is *not* employed to provide more empirical support for the arguments made.

Our second major concern, and one that justifies the search for alternative methodologies in business history, relies on the observation that in the post-1945 period, the

importance of manufacturing in the economy has become less important. Of course, to be fair to Chandler, concentration on the pre-1945 period, necessarily requires focus upon the manufacturing sector and, almost by definition, therefore, concentration upon the biggest manufacturing firms. However, in the post-1945 period, de-industrialisation has reduced the importance of the manufacturing sector. By implication, therefore, it is less likely that the biggest firms in manufacturing will also be the biggest firms in the economy. In the light of these considerations it appears that the relevance of Chandler's paradigm is highly dependent upon a particular time period.

Recognition of this was central to the arguments of Piore and Sabel who suggested that economic conditions from the early 1970s were completely inauspicious to manufacturing activities which were built upon the classic Chandlerian lines of high-volume production, massive scale economies, and fully-integrated production-distribution operations.⁴² According to Piore and Sable, an entirely different philosophy was required in manufacturing: one that espoused small-scale operations, flexibility, the use of low, asset-specific technology, and very much lower levels of vertical integration. Building upon their work, the term 'flexible specialisation' has come into increasing usage to refer to manufacturing operations that are distinctly non-Chandlerian in character. These structures are also supportive of family-based forms of business organisation in certain industries.⁴³

Tables 1 and 2 above and Appendix 1 showing the 182 most profitable UK companies between 1950-1983 provide some support for a modification of the Chandlerian framework. While it is true that some of these companies do fit neatly into the Chandlerian paradigm – for example, Glaxo, Dunlop, BOC, Goodyear, GKN – it is nonetheless the case that such companies are the exception rather than the rule. Many of the *most* profitable companies would be either too small to obtain a ranking in the UK's top 200 companies by size or they are in sectors such as clothing and footwear, wholesale, paper, and services which have tended to be specifically ignored in standard Chandlerian analyses. These points receive some elaboration in the conclusion.

Conclusions

This paper presents our preliminary researches into the ranking of the UK's most enduringly profitable companies *throughout* the period 1950-1983. It should be clear from this paper that our chosen measure of performance, ROCE, is a measure of outcomes, of the success or otherwise of the strategies pursued by the management running the companies in our sample. The processes associated with achieving these outcomes have only been tentatively addressed and await further research. At this stage, therefore, it is necessary to be cautious about reaching conclusions. Nonetheless, on the basis of the evidence presented here we believe it is reasonable for a few general points to be made.

Firstly, and unlike Chandler, we are not yet at a stage where we can provide a substantive business history of the companies in our sample. Nonetheless, as we indicated earlier, it is already apparent that small companies (those not in the top 200 by size) are among the most profitable – and therefore successful – in recent history. This suggests that the importance of economies of scale and scope and their implications for competitiveness need to be re-assessed. Alternative business strategies appear to have been equally successful. Secondly, it may be recalled that Chandler is particularly damning in his verdict on family firms. Such firms, according to Chandler, were both unwilling and incapable of making the three-pronged investments in production, distribution and personnel because this would have diminished family control of the business. Our research paints a different picture. To the extent that some of the most profitable companies in our sample were also relatively small, it follows that there was necessarily a greater role for family involvement in the business than would have been the case if such firms had been bigger. In other words, smaller firm strategies, at least in the post-1945 period, offered alternative routes to profitability. A final point is that nowhere in this paper have we attempted to test Chandler's hypotheses on the desirability of firms making the 'three-pronged' investment. In the light of our previous comments, and the evidence presented in this paper, we hope it is apparent that we do not believe such tests are necessary. One reason is that many of the companies in our sample are

completely unsuited to analysis along Chandlerian lines – so such tests would be inappropriate, to say the least.

The research agenda sketched above suggests the issue of governance, especially regarding the impact of family block shareholdings and associated capital market inefficiencies, requires detailed analysis. This will form part of a major research agenda arising from the results presented in this paper. In the meantime, we hope the evidence presented above provides sufficient justification for our belief that there is a need to use alternative measures of business success and, therefore, the need to develop alternative paradigms of the business strategies which lead to that success.

Appendix 1

Britain's Best Performing Companies, 1950-83: Full Sample Listing

Position	Company	Industry	Rank Score	Rank Rank	ER Rank	Comb Rank
1	Ellis & Goldstein	Clothing & Footwear	36.382	18	6	24
2	Grattan Warehouses	Retail	42.941	25	4	29
3	WOLVERHAMPTON & DUDLEY	Drinks	16.324	3	28	31
4	Wagon Ind. Holdings	Vehicles	56.882	33	1	34
5	Goldberg and Sons	Wholesale	46.706	29	5	34
6	Initial Services	Services	46.676	28	7	35
7	Dowty	Vehicles	57.206	34	2	36
8	HEINZ (H J) CO	Food	9.500	1	35	36
9	Coates Group	Chemicals	45.353	27	10	37
10	Telephone Rentals	Transport	48.353	30	8	38
11	Matthew Hall and Co	Metal Goods	44.029	26	12	38
12	Glaxo	Chemicals	49.618	31	11	42
13	BTR	Other Manufacturing	40.618	24	20	44
14	BASSETT (GEO) HOLDINGS	Food	20.765	6	40	46
15	Macmillan Bloedel Containers	Paper	29.676	13	36	49
16	Thomson Organisation	Paper	64.559	47	3	50
17	FH Tomkins	Metal Goods	61.559	37	13	50
18	Tesco	Retail	62.412	39	14	53
19	JH Fenner & Co	Engineering	52.353	32	22	54
20	Smith and Nephew	Textiles	62.559	40	15	55
21	MAYNARDS	Food	15.000	2	54	56
22	Currys	Retail	63.441	42	17	59
23	CADBURY SCHWEPES	Drinks	21.118	7	52	59
24	Nottingham Manufacturing Co	Textiles	64.206	45	16	61
25	Gestetner Holdings	Engineering	58.029	35	26	61
26	Marks and Spencer	Retail	63.735	44	18	62
27	Concentric	Metal Goods	60.206	36	27	63
28	THWAITES (DANIEL) & CO	Drinks	22.441	8	58	66
29	UNITED BISCUITS (HOLDING	Food	17.824	4	62	66
30	London Brick	Brick	62.294	38	29	67
31	Yarrow & Co	Shipbuilding	82.029	61	9	70
32	Beecham Group	Chemicals	62.794	41	31	72
33	Glynwed	Metal Goods	63.618	43	30	73
34	British Home Stores	Retail	73.853	53	21	74
35	Granada Group	Services	77.471	56	19	75
36	GUS	Retail	71.382	50	25	75
37	Coalite	Chemicals	64.382	46	32	78
38	CARRERAS	Tobacco	26.941	10	69	79
39	Automotive Products	Vehicles	78.088	58	23	81
40	Corah	Textiles	75.382	54	33	87
41	SCOTTISH & NEWCASTLE	Drinks	29.294	12	75	87
42	Associated Book Publishers	Paper	31.412	15	73	88
43	Armstrong Equipment	Engineering	70.853	49	41	90
44	DAVENPORTS BREWERY	Drinks	30.882	14	80	94
45	Boots	Chemicals	73.647	52	44	96
46	Bulmer and Lumb Holdings	Textiles	85.500	65	34	99
47	Bestobell	Engineering	72.500	51	50	101
48	Pegler Hattersley	Metal Goods	77.588	57	46	103
49	VAUX & ASSOC. BREWERIES	Drinks	32.147	16	90	106

50	BASS	Drinks	32.206	17	92	109
51	Redland	Brick	79.618	60	51	111
52	A Monk & Co.	Construction	76.794	55	56	111
53	TATE & LYLE	Food	25.971	9	102	111
54	Foster Bros	Retail	90.559	75	37	112
55	Donald McPherson Group	Chemicals	82.294	62	53	115
56	Highams	Textiles	89.529	71	45	116
57	Thomas Locker Holdings	Metal Goods	89.176	69	48	117
58	ROWNTREE MACKINTOSH	Food	27.471	11	111	122
59	Westland Aircraft	Vehicles	98.029	85	38	123
60	H Samuel	Retail	94.765	81	42	123
61	BPB Industries	Brick	86.559	66	57	123
62	Hopkinsons Holdings	Engineering	87.118	67	59	126
63	SW Berisford	Wholesale	93.382	78	49	127
64	Hoover	Electrical Eng.	83.147	63	70	133
65	Expanded Metal Co	Metal Goods	89.471	70	64	134
66	Parkland Textile Holdings	Textiles	93.971	80	55	135
67	IMPERIAL TOBACCO GROUP	Tobacco	36.765	19	116	135
68	Marley	Brick	89.912	73	63	136
69	News of the World Organisation	Paper	66.882	48	89	137
70	Aberdeen Construction	Construction	89.706	72	66	138
71	WHITBREAD & CO	Drinks	38.294	20	119	139
72	W. Canning & Co	Electrical Eng.	78.618	59	82	141
73	Portals Holdings	Paper	91.500	76	67	143
74	Reed International	Paper	19.353	5	138	143
75	Trust House Forte	Services	95.618	83	61	144
76	Tarmac	Brick	93.882	79	65	144
77	Thorn Electrical Industries	Electrical Eng.	88.912	68	76	144
78	Laird Group	Shipbuilding	109.265	108	39	147
79	Asprey & Co	Retail	105.029	101	47	148
80	AAH	Wholesale	99.118	89	60	149
81	Culter Guardbridge Holdings	Paper	85.118	64	88	152
82	May and Hassell	Timber	120.147	131	24	155
83	Whesoe	Engineering	96.265	84	71	155
84	Law and Bonar	Textiles	100.882	92	68	160
85	Steetley	Brick	98.441	87	79	166
86	Barr and Wallace Arnold Trust	Transport	101.059	94	74	168
87	Turner and Newall	Textiles	104.206	98	72	170
88	GN Haden & Sons	Construction	100.853	91	81	172
89	Birmid Qualcast	Metals	90.029	74	98	172
90	CAVENHAM FOODS	Food	38.500	21	151	172
91	Allied Leather Industries	Leather	98.912	88	85	173
92	Smiths Industries	Metal Goods	104.500	100	77	177
93	Mitchell Somers	Engineering	102.529	95	83	178
94	Chubb	Metal Goods	104.029	97	86	183
95	Delta Metal Co	Metals	98.206	86	97	183
96	Bowater Paper Corp	Paper	39.500	22	161	183
97	RANKS HOVIS MCDUGALL	Food	39.941	23	162	185
98	Unilever	Chemicals	105.559	102	84	186
99	Yorkshire Chemicals	Chemicals	104.324	99	87	186
100	Cope Allman & Co	Metals	95.500	82	104	186
101	Sears Holdings	Clothing & Footwear	108.235	104	91	195
102	John Brown and Co	Shipbuilding	108.265	105	93	198
103	Weir Group	Engineering	108.618	106	95	201

104	W Tyzack and Sons and Turner	Metal Goods	136.059	160	43	203
105	S Radcliffe (Greatbridge)	Metals	101.029	93	113	206
106	Manders Holdings	Chemicals	109.412	109	99	208
107	Boosey and Hawkes	Metal Goods	108.824	107	101	208
108	Danish Bacon Co	Wholesale	115.912	122	100	222
109	Associated Engineering	Engineering	114.206	119	105	224
110	Deritend Stamping Co	Metal Goods	114.176	118	109	227
111	Plessey	Electrical Eng.	112.265	115	112	227
112	Sidlaw Industries	Textiles	118.647	127	103	230
113	Associated Hotels	Services	117.412	124	107	231
114	Valor	Metal Goods	111.265	113	118	231
115	Arthur Lee and Sons	Metals	106.853	103	130	233
116	Fitch Lovell	Wholesale	127.294	141	94	235
117	Wilmot Breeden Holdings	Vehicles	118.000	125	110	235
118	Steinberg & Sons	Clothing & Footwear	114.353	120	115	235
119	W&C French	Construction	92.941	77	158	235
120	Ruberoid	Brick	120.118	130	106	236
121	Chloride Electrical Storage Co.	Electrical Eng.	111.441	114	123	237
122	John Foster and Son	Textiles	120.765	132	108	240
123	Neepsend Steel and Tool	Metals	102.765	96	144	240
124	FH Lloyd & Co	Metals	110.529	110	137	247
125	WH Smith	Retail	132.353	153	96	249
126	Manganese Bronze Holdings	Metals	114.853	121	132	253
127	Ransom and Marles Bearing Co	Engineering	121.853	134	120	254
128	J Lucas Industries	Electrical Eng.	118.500	126	128	254
129	De La Rue	Paper	147.941	178	78	256
130	Bridport Gundry	Textiles	127.235	140	117	257
131	Carpets International	Textiles	114.118	117	140	257
132	Metal Box Co	Metal Goods	124.382	136	122	258
133	Westminster & Country Properties	Services	123.706	135	124	259
134	National Sunlight Laundries	Services	130.118	146	114	260
135	Rotary Hoes	Engineering	110.882	111	150	261
136	Taylor Woodrow	Construction	126.147	138	125	263
137	Barrow Hepburn Group	Leather	125.559	137	126	263
138	Ferranti	Electrical Eng.	120.941	133	131	264
139	Bath and Portland Group	Brick	127.206	139	129	268
140	Manc Guardian & Evening News	Paper	100.176	90	181	271
141	Johnson Matthey	Metal Goods	119.147	129	145	274
142	Avon Rubber	Other Manufacturing	111.118	112	164	276
143	Blue Circle	Brick	129.500	144	133	277
144	Richard Johnson and Nephew	Metal Goods	128.471	143	134	277
145	Henlys	Retail	127.529	142	143	285
146	Rugby Portland Cement	Brick	131.059	150	136	286
147	Richardsons Westgarth & Co	Shipbuilding	113.647	116	176	292
148	Associated Paper Mills	Paper	130.176	147	146	293
149	WGI	Engineering	130.529	148	149	297
150	Dunlop	Other Manufacturing	116.853	123	174	297
151	BOC	Chemicals	134.412	156	142	298
152	Francis Industries	Metal Goods	135.029	158	141	299
153	House of Fraser	Retail	148.324	179	121	300
154	George Cohen 600 Group	Wholesale	138.235	166	135	301
155	Baker Perkins Holdings	Engineering	135.676	159	148	307
156	Kenning Motor Group	Retail	151.618	182	127	309
157	BICC	Electrical Eng.	134.559	157	152	309

158	GEC	Electrical Eng.	133.382	155	154	309
159	Mowlem	Construction	136.971	163	147	310
160	George Spencer	Textiles	130.588	149	169	318
161	English calico	Textiles	137.882	164	155	319
162	Cookson (Lead Industries)	Chemicals	140.265	167	153	320
163	Goodyear Tyre and Rubber Co.	Other Manufacturing	118.676	128	193	321
164	Tozer Kemsley and Millbourn	Wholesale	131.794	151	172	323
165	GKN	Metal Goods	143.324	171	156	327
166	Savoy Hotel	Services	142.412	168	159	327
167	Renold	Engineering	138.147	165	163	328
168	Davy Ashmore	Engineering	136.088	161	168	329
169	United Newspapers	Paper	165.588	193	139	332
170	Whitecroft	Textiles	145.941	175	157	332
171	Vauxhall Motors	Vehicles	132.000	152	180	332
172	Babcock and Wilcox	Engineering	146.941	176	160	336
173	Selincourt	Clothing & Footwear	133.118	154	187	341
174	Illingworth Morris	Textiles	147.559	177	167	344
175	Duport	Timber	129.824	145	199	344
176	ICI	Chemicals	153.853	183	165	348
177	Tube Investments	Metals	144.118	173	177	350
178	Rank Organisation	Services	145.559	174	179	353
179	Berry Wiggins	Chemicals	136.588	162	194	356
180	British Ropes (Bridon)	Metal Goods	156.912	187	170	357
181	Staveley Industries	Metals	143.529	172	186	358
182	Powell Duffryn	Wholesale	158.912	190	171	361
183	Owen and Owen	Retail	170.559	196	166	362
184	Fisons	Chemicals	157.559	189	175	364
185	Union International	Transport	150.294	181	183	364
186	International Computers Holdings	Engineering	142.853	169	195	364
187	Laporte	Chemicals	149.941	180	185	365
188	Brookhouse, J. and Co	Metal Goods	157.559	188	178	366
189	British Electric Traction	Transport	155.529	184	184	368
190	Uniroyal	Other Manufacturing	142.941	170	198	368
191	Austin Reed Group	Retail	172.794	197	173	370
192	William Baird	Brick	155.529	185	189	374
193	Lister & Co	Textiles	156.382	186	190	376
194	Debenhams	Retail	177.118	198	182	380
195	Burton Group	Clothing & Footwear	167.206	195	191	386
196	Vickers	Engineering	166.353	194	192	386
197	John Lewis and Co	Retail	179.088	199	188	387
198	Sir Isaac Pitman & Sons	Paper	162.559	192	196	388
199	Heywood Williams Group	Metal Goods	161.059	191	197	388
200	Chrysler UK	Vehicles	179.529	200	200	400

Notes

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¹ For example P. Wardley, 'The Emergence of Big Business: The Largest Corporate Employers of Labour in the United Kingdom, Germany and the United States c.1907,' *Business History*, Vol 41(4) (1999), pp.88-116.

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² Where managers pursue growth at the expense of shareholder value and monopoly profit at the expense of customers (Baumol, 1958)

² R.N. Langlois and P.L. Robertson, *Firms, Markets and Economic Change: A Dynamic Theory of Business Institutions* (London, 1995). P. Scranton, *Endless Novelty: Speciality Production and American Industrialization, 1865-1925* (Princeton, 1997). A. Chandler, *Scale and Scope: The Dynamics of Industrial Capitalism*, Cambridge Mass.: Belknap Press (1990).

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³ J.S. Toms, 'Financial Constraints on Economic Growth: Profits, Capital Accumulation, and the Development of the Lancashire Cotton Spinning Industry, 1885-1914,' *Accounting Business and Financial History*, Vol. 4 (3), (1994) pp. 364-383. D.M. Higgins and J.S. Toms, 'Firm Structure and Financial Performance, The Lancashire Textile Industry,' *Accounting Business and Financial History*, Vol 7, (1997); pp. 195-232. J.S. Toms, 'Windows of Opportunity in the Textile Industry: The Business Strategies of Lancashire Entrepreneurs 1880-1914,' *Business History*, Vol. 40 (1998), pp.1-25. D.M. Higgins and J.S. Toms (2000), 'Public Subsidy and Private Divestment: The Lancashire Cotton Textile Industry,' *Business History*, Vol. 42(1), pp.59-84. I. Filatotchev and J.S. Toms, 'Corporate Governance, Strategy and Survival in a Declining Industry: A Study of Lancashire Textile Companies', *Birkbeck College Discussion Paper* (2000).

⁴ The database is available in Microsoft Excel in CD-ROM format from the Data Archive, University of Essex.

⁶ Three industries were excluded from the survey because there were no firms in the database that survived continuously between these dates. These were Mining, Quarrying, Oil and Petroleum.

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⁷ Long, W.F. and D. J. Ravenscraft, 'The Misuse of Accounting Rates of Return: Comment,' *American Economic Review*, Vol. 74, No. 3, (1984) pp. 494-500.

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⁸ The key analyses of this debate are contained in: W.E.Martin, *The Economics of the Profits Crisis* (London, HMSO), 1981, p.70; G. Meeks, 'Profit illusion', *Oxford Bulletin of Economics and Statistics*, 36 (1974), pp.267-285; M.Panic and R.E.Close, 'Profitability of British Manufacturing Industry', *Lloyds Bank Review* July, 1973, pp.17-30; J.S.Fleming, et.al., 'The cost of capital, finance and investment', *Bank of England Quarterly Bulletin*, June, 1976, pp.193-205; J.S.Fleming et. al., 'Trends in company profitability', *Bank of England Quarterly Bulletin*, March, 1976, pp.36-52; J.R.Sargent, 'Productivity and profits in UK manufacturing', *Midland Bank Review*, Autumn, 1979, pp.7-13; M.A. King, 'The United Kingdom profits crisis: myth or

reality?', *Economic Journal*, 85 (1975), pp.33-54; T.P. Hill, *Profits and Rates of Return* (OECD, 1979).

⁹ For a summary, see Salamon, G.L., Accounting Rates of Return, *American Economic Review*, Vol. 75, No. 3 (June, 1985), pp. 495-504.

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¹⁰ See especially Fisher, F. M. and J.J. McGowan, 'On the Misuse of Accounting Rates of Return Ratio to Infer Monopoly Power', *American Economic Review*, Vol. 73, No. (March, 1987), pp. 82-97. For a summary, of these arguments see Steele, A., 'Further Notes on Estimating Economic Returns from Published Accounting Statements', *Journal of Business Finance and Accounting*, Vol. 22, No. 7 (Spring, 1995), pp. 923-938.

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¹¹ Whittington, G. (1979), On the Use of the Accounting Rate of Return in Empirical Research', *Accounting and Business Research*, Vol. 9, No. 35 (Summer), pp. 201-208.

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¹² Fisher, F. M. and J.J. McGowan, 'On the Misuse of Accounting Rates of Return Ratio to Infer Monopoly Power', *American Economic Review*, Vol. 73, No. (March, 1987), pp. 82-97. As pointed out by Long and Ravenscraft 'The Misuse of Accounting', criticisms of ARR's have been levelled in the context of structure and performance in specific industries or extreme analytical cases.

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¹³ Steele, A. (1995), 'Further Notes on Estimating Economic Returns from Published Accounting Statements', *Journal of Business Finance and Accounting*, Vol. 22, No. 7 (Spring), pp. 923-938.

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¹⁴ For a summary of these arguments in the general case, see Whittington (1979).

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¹⁵ Barnes, P. (1982), 'Methodological Implications of Non-Normally Distributed Financial ratios', *Journal of Business Finance and Accounting*, Vol. 9 No. 1 (Spring), pp. 51-62. Ezzamel, M., C. Mar-Molinero, and A. Beecher (1987), 'On the Distributional Properties of Financial ratios in UK Manufacturing companies', *Journal of Business Finance and Accounting*, Vol. 14, No. 1 (Spring), pp. 463-481.

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¹⁶ In the case of Thomson Organisation, extraordinary returns were attributable a major reduction in the company's capital base and large increase in profits due to the sale of £132m of marketable securities, [following the disposal of Times Newspapers](#).

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¹⁷ A. Godley, A. Kershen & R. Schapiro, 'Fashion and its impact on economic development of London's East Endwomenswear industry, 1929-62: the case of Ellis & Goldstein', *Textile History*, 34, 2 (2003), pp.214-28; Miscellaneous press cuttings.

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¹⁸ John Osborn, Alexon Chief Executive cited in C. Kennedy, 'Fifty and still Nifty', *Director*, Oct97, Vol. 51(3), p.30.

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¹⁹ [Filatotchev and Toms 2003, Toms and Filatotchev, 2004. The Times, 4th May, 1960](#).

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²⁰ *The Times*, 31st August, 1960; *The Times*, 10th December, 1960; *The Times*, 18th June, 1965. By 1979 the company had acquired 36 UK and Commonwealth subsidiaries (including S. Africa), but just 4 elsewhere (Smith and Nephew Annual Report, 1979).

²¹ Filatotchev and Toms, 2003. *The Times*, 12th March 1970.

²² 'A thrusting but genial tycoon', *The Times*, 1st December, 1960.

²³ 'Record profits', *The Times*, 23rd March 1965.

²⁴ 'Computerised news', *Economist*, 27th March 1965, pp.1414-15. The firm had always resisted union recognition, an attitude which, according to the *Economist*, 17th May 1952, p.431, amounted to 'economic Bourbonism'.

²⁵ *The Times* 20th April, 1965. Hamish Hamilton was a leading acquisition in the publishing industry (*The Times*, 22nd November, 1965).

²⁶ 'Putting profits to work', *The Times*, 20th May, 1980.

²⁷ WIH web site – John please give URL and date visited.

²⁸ G. Owen, *From Empire to Europe. The Decline and Revival of British Industry since the Second World War*, HarperCollins 1999; R.P.T. Davenport Hines and J.Slinn, *Glaxo: A History to 1962*, Cambridge University Press, 1992.

²⁹ WWW.corporatewatch.org WWW.Tescocorporate.com Various press

³⁰ J. Dunning, *The Role of American Investment in the British Economy*, London: PEP, 1969.

³¹ A.D.Chandler, *Scale and Scope*, p.392.

³² Investment in production facilities was necessary in order to exploit a technology's economies of scale and scope; investment in national and international marketing and distribution networks was necessary to ensure that the volume of sales matched that of production. The third prong was investment in management which was necessary to co-ordinate the activities of the new form of business enterprise and to allocate resources for the future needs of production and distribution. A.D. Chandler, *Scale and Scope*, p.8.

³³ Chandler, Table 3.

³⁴ Data here.

³⁵ For a review and critique of the Chandlerian framework see, for example, 'Scale and Scope: A review colloquium', *Business History Review*, 64 (1990), pp. 690-735.

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³⁶ C. Mayer, 'The City and Corporate Performance: Condemned or Exonerated?' *Cambridge Journal of Economics*, Vol. 21 (1997); pp. 291-302.

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³⁷ Higgins and Toms, 'Public Subsidy and Private Divestment'.

³⁸ For a detailed theoretical discussion of this point see I. Filatotchev and J.S. Toms, 'Corporate Governance, Strategy and Survival in a Declining Industry: A Study of Lancashire Textile Companies', *Birkbeck College Discussion Paper* (2000).

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³⁹ For example B. Elbaum and W. Lazonick, 'An Institutional Perspective on British Decline', in B.Elbaum and W. Lazonick (eds.) *The Decline of the British Economy*, Oxford: Oxford University Press, (1986).

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⁴⁰ Scale and Scope, p.8.

⁴¹ D.M.Higgins and S.Toms, 'Firm structure and financial performance.' But see also, D.J. Teece, 'Internal organisation and economic performance: an empirical analysis of the profitability of principal firms.' *Journal of Industrial Economics*, 30 (1981), pp.173-200.

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⁴² M.J. Piore and C.F. Sabel, *The Second Industrial Divide* (New York, 1994)

⁴³ Roy Church, 'The Family Firm in Industrial Capitalism: International Perspectives on Hypotheses and History', *Business History*, 35 (1993).