The Divorce of Ownership from Control from 1900: Re-calibrating Imagined Global Historical Trends

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ABSTRACT

In 1900 US business corporations were dominated by plutocratic family owners, while British and French quoted companies more commonly divorced ownership from control. 'Democratic' corporate governance rules explain some of Europe's precocity and London's exceptional listing requirement of large free floats was an important initial factor in manufacturing. Later in the twentieth century, the United States overtook France by further divorcing ownership from control. Business historians should direct their efforts to understanding why Britain was an early pioneer, with persistently wide shareholding, why America took decades to catch up, and why other countries did not build on their earlier lead. The pursuit of alternative (largely imagined) histories of national ownership differences could usefully be curtailed.

Keywords: ownership and control; share ownership; family ownership; managerial capitalism; corporate governance.

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Introduction

One of the stylized facts of twentieth-century business history is the increasing divorce of management control from shareholding ownership. Scholars have debated its extent and whether it has really fundamentally changed capitalism, though few have questioned that ownership did become increasingly divorced from control. Inevitably a concept so easily linked to 'modernity' has also been pressed into service as a tool for understanding the rise and decline of nations. Its enthusiastic embrace by Germany and the United States has been confidently identified as a prime source of their business and technological dynamism. By the same token, historians of France and Britain have gravely diagnosed the survival of family ownership and delayed management professionalization as a source of their economic retardation.

Participants in the metropolitan capital markets of the early twentieth century would have found these perspectives somewhat puzzling, since they were aware that ownership was already substantially divorced from control in leading European businesses. They considered Paris and London the premier international stock markets, with New York and Berlin having more limited local roles. They would simply have been amused by any suggestion that listed share-ownership was more dispersed in America and Germany than in Britain and France. However, as avid readers of the newspaper sagas of personal capitalism of the Vanderbilts, Harrimans and Rockefellers, they were by no means certain that the distinctively plutocratic ownership structures favoured in the New World were doomed. It is easy for us to forget that, to the capital markets of 1900, Alfred du Pont was the well-known head of one of France's largest quoted companies, while his distant namesake, running an American family partnership, was unknown.

Moreover, many businessmen at the turn of the century considered the divorce of ownership from control to be a potentially worrying problem requiring careful attention, rather than a solution to the political or management problems of capitalism that some political commentators and business historians later pronounced the supposedly new phenomenon to be.[1] This article explores why the perspectives instinctive to contemporaries differ so much from those of later writers, by examining where and why ownership was most divorced from control at the beginning of the twentieth century.

Four Major Stock Markets in 1900

On 2 January1900, the main stock markets of the world opened for business with the equity capitalizations shown in Table 1.[2] These valuations are based on the previous weekend closing prices of ordinary (common) stocks and shares.[3] The national

Table 1

Stock Market Values of Domestic Corporate Equities quoted on Major National Exchanges at the beginning of 1900

Country (and Stock Exchange)	Number of Companies with Listed Equity	Value of Domestic Equities at Market Prices			Sector Shares		
		Total	Per Capita	Ratio to GDP	Rail	Finance	Other
		($M)	($)	%	%	%	%
UK (London)	783	4,300	104	49	49	17	34
France (Paris)	429	2,139	55	34	43	26	31
US (New York)	123	2,860	37	15	63	7	30
Germany (Berlin)	719	1,110	20	14	9	45	47

Sources: Cols. 1, 2, 5, 6, 7: Dimson, Marsh and Staunton, *Triumph,* pp. 23-6; anon, *Documents*, tables; cols. 3, 4: author's calculations.

aggregates in the table only include *domestic* companies officially listed on the appropriate *national* exchange. London – the capital of a country with around half the US's GDP - was still, in absolute terms, larger than New York, even for domestic corporations alone. Paris - with a national GDP only one-third the US's - was not much smaller, and, again, larger if quoted international equity were included. The puzzlingly small size of Berlin (comparisons of the final columns suggest) is partly explained by the relative insignificance of rail issues there, while a similar gap - financial issues - appears in the New York market. These 'missing' equities are, of course, largely the result of government actions. Germany had nationalized its major railways and their fixed interest indebtedness therefore now appeared as government, not corporate securities. In the US, branching was substantially banned, so the thousands of American banks were mostly too small for a New York Stock Exchange (NYSE) quotation, while European banks were larger and often quoted.

The third and fourth columns of Table 1 provide indicators of the penetration of corporate equity in the various economies, but should be interpreted with care. The column showing equities per head of population, for example, cannot be construed as an average holding within the country, since so many New York listed equities were then held in Europe. The average US citizen's holding of NYSE-listed equities was certainly lower than this figure; while, given the prevalence of foreign corporate equity listed on London, the average UK citizen's holding of London equity was certainly higher than the domestic total shown. Indeed, it is rather striking that at this time the value of all British investments in the United States alone – \$2.6 billion, though that included unquoted investments, preferred stock and bonds – was about the same as the value of all the equity listed on the NYSE.[4] (Of course, neither of these two figures was a very large number when compared to the massive accumulated capital stock of the American economy, that had been financed by individuals, families, partnerships, other securities and other financial intermediaries.)[5] The 'equity culture' was not fully developed anywhere at this time, but shareholding was more widespread in Britain and France; Western Europe naturally had the more experienced and sophisticated investors.[6]

Other things being equal, it seems likely that France and Britain would exhibit the larger degree of divorce of ownership from control that such large metropolitan stock exchanges facilitate. Shareholding habits were, of course, still generally confined to the wealthier classes everywhere.[7] Yet, the typical share bargain size in London (around $500) compared with New York ($10,000) is consistent with somewhat wider share-ownership in Britain.[8] In France stock purchases as low as $100 were acceptable to Paris brokers and banks.[9] American observers were amazed to find that in France small lots of shares traded for more than large lots (reflecting substantial excess demand from small investors), whereas in America the reverse was true (reflecting the adverse cost structure of small 'odd-lot' – below $10,000 – deals, in a US stock market dominated by plutocrats).[10] Where European and American shareholdings in the same company can be distinguished, American shareholdings were usually larger.[11] Investment trusts, enabling smaller investors to spread their risks, were well established in Europe, but almost unknown in the US in 1900.[12]

Low minimum share sizes are also suggestive of a 'democratic' market. In Britain, there was no legal minimum and £1 (about $5) shares were quite normal, though France did not adopt the suggestion from an official enquiry that similar 25 franc shares should be legal for all companies there (shares of that size were permissible from 1893 only for small companies, with 500 francs ($100) being the minimum for large companies). In Germany, the minimum share size was fixed in 1884 at 1,000 marks ($250) to prevent small investors from taking risks on shares.[13] In the US almost all companies adopted a $100 norm, with only a few widely-held corporations like the Pennsylvania Railroad offering $50 common stocks.

Such observations are indicative, but not in themselves decisive, in establishing where share-ownership was most widespread. There are several possible reasons why such indicators might not reflect national breadth of stockholding. Some among these countries might have relied more on non-voting fixed-interest bonds, that even more clearly divorced ownership from control than widespread equity ownership. It is also possible that the 'domestic' equity market size of the UK in Table 1 is exaggerated because British companies had most foreign direct investments (inevitably included in their domestic capitalizations).[14] Also, the metropolitan stock exchanges were those on which ownership was likely most widespread, but they were at this time supplemented by many regional exchanges and informal stock trading markets. These were probably of more importance in an imperial federation like Germany or a federal republic like the US than in (politically and financially) centralized Britain and France. The 'free float' of shares in listed companies that were in the hands of the general public may also have been larger in some countries than others: the shares closely held by the family directors who still dominated many of these companies – though normally included in the market valuation totals – could be correspondingly less important there. The evidence on these issues is far from perfect, and it is clear that ownership patterns differ by business sector, so the next sections examine these separately.

Railways: Pioneering Management Control

The railway sector was the largest component in Table 1, and Berle and Means, investigating the divorce of ownership and control in the United States, described it as the pioneer of the phenomenon there, so it is the obvious starting point. The first issue to be resolved is what to do about Germany, where most of the railway system had been nationalized. Berle and Means were inclined to treat publicly-owned US utilities as an advanced form of the divorce of ownership from control, implicitly seeing citizens as owners, who did not directly exercise control.[15] Extending that treatment to the many railways (not to speak of gas, water and electric utilities, telephones, telegraphs, shipyards, tobacco factories and the like) that in 1900 were owned by local and central governments would tend to show European countries with more divorce of ownership from control than the US (which had one of the smallest government-owned sectors). On the other hand, not doing so biases the result in the opposite direction, since the industries that were often state-owned in Europe, like the railroads, led the move to wider share ownership in the US.

There is no obviously right answer to this conundrum, so I have simply opted for the latter bias: arbitrarily confining this study to the quoted company sector, however that was constituted. This also means that sectors with extensive family ownership – like retailing – are largely excluded. So, indeed, are entirely personally-owned firms like Krupp, Carnegie Steel and the Wills tobacco enterprise, to name the largest industrial firms in these countries that were not, at the end of the nineteenth century, quoted, though I will, from time to time, refer to such examples also.

The omission of regional stock exchanges is least serious in the case of railways: it is clear that most of the leading rail stocks were quoted on the major metropolitan stock exchanges. Dozens of European railways had, by the late nineteenth century, tens of thousands of shareholders each. In Britain, it was calculated that there were, in 1902, 700,000-800,000 separate railway shareholdings, owned by 500,000 shareholders (1.2 per cent of the population). Neymarck reckoned the holders of railway shares and bonds together in France numbered 700,000 as early as 1895 (1.7 per cent of the population), though the shareholders alone would have accounted for barely half that. Data on individual railroad companies also suggests widely dispersed shareholding. In Britain, the London & North Western Railway (LNWR: the largest company by equity capitalization) alone had 36,349 ordinary stockholders, the Midland Railway 46,661 and 8 others had more than 10,000 stockholders.[16] The situation was very similar in the six major French railway companies: the Paris-Lyon-Méditerranée (P-L-M) railway had 29,522 shareholders in 1900. Only four P-L-M shareholders owned as many as 500 shares, worth, at 1900 values, only $135,000: so the largest 4 shareholders held less than 0.2 per cent of the shares.[17]

There were perhaps only 500,000 common stockholders in the United States in 1900 (0.7 per cent of the population) in *all* enterprises: a lower proportion than for domestic railway stockholders alone in Britain.[18] American railways typically numbered their stockholders in thousands rather than the tens of thousands common in Europe. The known exceptions in 1900/01 were the Pennsylvania with 29,000, the Atchison, Topeka & Santa Fe with 13,147, the Union Pacific with 12,450 and the New York Central with 10,320.[19] Many large railroads, however, were more personally controlled and had fewer stockholders: the Southern Pacific, the Erie, the Northern Pacific and the Southern were all so classified by Huebner. The average US railroad stockholding in his 1900 sample of large railroads was $21,890 (58 years' earnings for an average US employee of the time), compared with $5,229 for the UK and $3,474 for France.[20] As American stockholders took over from Europeans in many American railroads in the 1890s, the average US railroad stockholding increased by 42 per cent, at a time when average railway stockholdings in Europe were getting smaller.[21]

A key difference between European and American railroads was in their corporate governance rules. Generally the main providers of capital – the holders of bonds and preference shares – did not have significant voting power. However, in Europe even large ordinary shareholders were usually in a similar position, because of what Colleen Dunlavy has called 'democratic' rules of corporate governance: one vote per shareholder (rather than per share), or what Alexander Hamilton called the 'prudent mean,' that is reduced voting weight per share, as the number of shares held increased. This was the norm in the main railway companies and prevented, or at least strongly inhibited, the emergence of plutocratic control: large holders' votes simply counted for less.[22] The boards of directors and professional managers in European railways were therefore very securely entrenched operators of what were essentially public service utilities: even the ordinary shareholders were virtual *rentiers*, not controlling owners. Occasionally sons followed fathers as railway directors, but only rarely do directors with the same surname serve concurrently on British or French railway boards: these were not family-owned companies, but public, widely-held firms controlled through elite business networks.[23]

There was little point in the directors on such boards having a large shareholding, unless it happened to suit their personal investment needs. In the LNWR, a director was required to own just £1,000 (nominal, about $5,000) of stock, though the actual holdings of the 23 directors at the turn of the century varied from that minimum, held by a recently elected Irish MP-director, through the chairman's £2,440, up to the largest director stockholding of £65,000, the latter being the Duke of Sutherland, one of Britain's wealthiest men. Collectively the 23 directors held only £225,422: well below 1 per cent of the stock outstanding in 1900.[24] The LNWR's voting rules – which since an 1845 Act had become standard in British railway companies – gave ten votes to any stockholder owning the director's qualifying £1,000 block, but each further £500 up to £10,000 commanded only one vote and, beyond that, there was only one vote per £1,000 of stock.[25] An outsider buying up a majority of the £42 million stock (which, at 1900 market prices, no one person in Britain - and only one or two in America - were rich enough to do) could only take control of the company with the support of numerous small shareholders, who had the overwhelming majority of votes. In practice, because the voting structure prevented a takeover bid coalescing small shareholders' actions, the incumbent directors held effective control. Except when the board completely lost shareholder confidence, any significant holder was reduced to using 'voice' or 'exit' to influence board policy.

In France the voting power of railway shareholders was slightly different: in the P-L-M railway, for example, there was no vote for holders of less than 40 shares (worth about $10,800 on 1900), then one vote for every 40 shares, with an overall maximum of ten votes. This pattern – typical of many French companies – discouraged the nuisance of small shareholder attendance at annual meetings and was something of a charter for the comfortable bourgeois against the plutocrat: both less and more 'democratic' than the typical British structure. However, the practical effect was identical to that of the British voting structure: to entrench control by a self-selected and self-perpetuating board and the professional railway managers they co-opted, and to prevent any contestable market in corporate control developing. In both countries, railway boards consisted of bankers, politicians, merchants and industrialists – and the railway engineers and managers they promoted – who brought a range of professional expertise and varied stakeholder views to their deliberations, and only rarely had significant ownership stakes. Edouard de Rothschild was on the board of the Compagnie du Nord, only tangentially as a result of the large financial interest his family had once had, but mainly because of his accumulated, expert knowledge of finance and administration.[26]

In the US, by contrast, most railroad common stocks (or voting preferred stocks) had one vote irrespective of the number held: what Dunlavy terms a 'plutocratic' governance structure that is now the corporate norm. Hence, control could be obtained by a large shareholder, even – given high leverage and pyramiding – one owning a relatively small portion of total corporate capital.[27] In Britain or France, the difficulty of gaining control of large railway lines by buying a majority shareholding required that the consolidation by merger of complementary or competing lines be primarily a parliamentary and legal process.[28] In the US, though public policy also had a role, something like the modern takeover was the normal form of corporate consolidation and reorganization.[29]

Railway management at a US railroad like the Pennsylvania appears almost as securely entrenched as its French and British counterparts, given its unusually dispersed stockholding and large size. One well-informed observer commented that 'The company's finances have been conducted on principles more English than American.'[30] New England railroads also tended to have more dispersed shareholding than western and southern ones. Yet many American railroads were under personal control. In the Southern Pacific, Collis P. Huntington owned 34 per cent of the stock when he died in 1900.[31] The pioneer developer of Florida, Henry B. Plant, owned practically all of the stock of the Savannah, Florida & Western Railroad, linking Tampa to Charleston.[32] George Gould, the leisured and barely competent son of Jay, still ruled a rail empire, with 26 per cent of the stock of the Missouri Pacific (Gould family members had four of the 13 board seats) and ambitious expansion plans for extending their Rio Grande interests with the Western Pacific.[33] As Van Oss, the leading interpreter of American railroads to British investors, pointed out, the culture of American railroad management was quite distinctive: 'it is much more autocratic than in Europe … Nearly all lines are governed by a clique or one single person. Occasionally the clique or individual own a majority of the shares; sometimes the majority of their shares is not absolute, but large enough to render opposition impossible.'[34]

Railroad politics around the turn of the century suggest a lively market for corporate control, with Harriman, Morgan, Vanderbilt, Gould, Hill and Rockefeller vying for personal control of further major lines. It was usually reckoned that, since fewer than three-quarters of votes were present or proxied at meetings, a holding of 30 per cent was sufficient to obtain control of a line, and contemporary stock exchange manuals routinely referred to such shareholdings as a 'controlling interest.' James Hill had only a 10-12 per cent interest in the Great Northern in 1900, though with the support of another 27 per cent of friendly stockholders represented on the board, like Morgan and Schiff, he reckoned to have control, and Hill family members occupied a third of the board positions.[35] He reckoned without Edward Harriman and the Union Pacific: their epic takeover battle for the Great Northern in 1901 indicated the critical importance, when control was contested, of having more than 50 per cent by the appropriate rules.[36] Hill eventually prevailed, but by 1906, Harriman controlled 25,000 miles of line outright, had substantial holdings in 30,000 miles more and investments in 16,000 additional miles, giving him influence over one-third of US railroad mileage.[37]

Thus although in European (and some American) railways shares were widely held and ownership and control were increasingly divorced, in the US, in the NYSE's biggest equity sector, there remained stronger elements of personal ownership and control. Of course, in this cosmopolitan world, some European elements penetrated to America and *vice versa*. European bankers and bond trustees had sometimes been concerned by the instability of US railroad management caused by the fluid market in corporate control and, to counteract it, formed voting trusts, which temporarily (typically for five years, renewable) deprived shareholders of the vote. This gave them a governance structure more like that in Europe: the professional managers they installed had time to drive through technical and financial reconstructions. In the extensive railroad bankruptcies of the 1893 crisis, this became something of a Morgan speciality. The Erie Railroad, for example, was controlled by three voting trustees: J Pierpoint Morgan, Louis Fitzgerald and Sir Charles Tennant.[38]

Just as such trusts could replicate the effect of European voting rules in protecting a stable professional management team against marauding American corporate raiders, some companies in Europe became personally controlled in the American manner. In 1901, the American Charles Yerkes and the Speyer investment bank formed a syndicate to take over and reorganize the Metropolitan District Railway (one of the London underground railways that, exceptionally, had a plutocratic voting structure) by buying a majority of stock in the market.[39] The tendency to personal ownership and takeover bids was, however, distinctly more pronounced in the United States, and, even after the First

World War, one American plutocrat could casually remark to another that he was thinking of buying a railroad.[40] That conversation could not then have taken place in Europe.

The Finance and Utilities Sectors

Railways often started large of necessity, but banks, insurance companies and other financial firms could start relatively small and grow organically, so partnerships and personally owned enterprises remained more common everywhere, and could attain substantial size without public issues. Large investment banks like Rothschilds and Morgans were still partnerships. However, in Europe and Japan by the end of the nineteenth century, a metropolitan stock exchange quotation was the norm for central banks (which, except in Tsarist Russia, were then investor-owned) as well as for many large commercial banks. These banks sometimes had similar ‘democratic’ shareholder governance rules to railways.[41] The central banks typically had thousands of shareholders, though their role in appointing directors was sometimes limited by government reservation of powers to appoint governors or a portion of the board. The Bank of England, in which stockholders with at least £500 of stock had one vote and no one had more than one vote, was the largest 1900 quoted company (equity capitalisation $238 million) with a quite widely dispersed shareholding dating back two centuries.[42] In 1900 it may have had around 10,000 stockholders (making the average holding worth $23,800), but only 191 of them owned more than £4,000 nominal of stock (then worth $66,000).[43] The Banque de France had 27,136 shareholders in 1900, with an average holding of 6 ½ shares worth $4,767; the Reichsbank had 8,071 shareholders, with an average shareholding of 5 shares worth $1,920.[44]

European commercial banks' shares were also widely held, particularly those that had expanded by acquiring other banks to build extensive branch networks. In France, the Crédit Foncier had 39,510 shareholders as early as 1900, their average holding of eight and a half shares being worth $1,208.[45] In 1885, there were four commercial banks in Britain with more than 5,000 shareholders; by 1902 four exceeded 10,000 and, by 1912, four had more than15,000 shareholders.[46] In most large retail banks, directors' shareholdings were insignificant, despite the widespread (and by 1900 exceptional) survival of unpaid liabilities on bank shares, which might have been expected to deter small shareholders. The London, City & Midland Bank reached 14,200 shareholders by 1908 and in 1911 – the first year for which comprehensive director shareholding data can readily be collated – had 17 directors with total holdings of only 3,938 shares or 1.2 per cent of those outstanding. The chairman and managing director since 1898, the self-made Sir Edwin Holden, held only 265 shares (£3,312 nominal paid-up value), and, as he built up the bank by sequential acquisition, he insisted that large shareholders in acquired local banks take cash rather than shares in payment, limiting the extent of other large shareholdings to well below 1 per cent.[47] An egalitarian who distrusted inherited wealth, Holden's motive was to entrench professional banker control.

In contrast, family ownership of large stockholding blocks remained common in quoted American banks. The Stillman family, for example, owned 20 per cent of the common stock of the National City Bank of New York (president: James Stillman) and the Baker family owned 25 per cent of the common stock of The First National Bank of

New York (president: George Baker), with much of the rest concentrated in large, friendly hands, represented on the board.[48] In Britain's large quoted banks, the top several dozen shareholders were needed to achieve a similar share of the capital. Even in canonical British cases, known for extreme levels of family ownership, like Barclays Bank (unquoted until 1902, with only 650 shareholders), the chairman's holding was only 6 per cent and it took the aggregate of many families' holdings to equal these NYSE-quoted bank board ownership levels. American family ownership was more than nominal. As late as 1919 - three years after its family-dominated board first installed an externally recruited, internally promoted, professional banker as Barclays chairman - the Stillmans declined to do the same for Frank Vanderlip, in order to secure their family succession.[49]

If personal control of the board was the norm in the largest US banks, whose stock traded in the nation's financial centre, it is likely to have been encountered also in the more typical, small American community banks, quoted on regional stock markets or traded 'over-the-counter.' Even in New England, where, by 1895, boards of directors of Boston banks typically held as little as 10 per cent of the stock, much of which was held by other savings institutions and smaller holders, the development of takeover bids around the turn of the century led to some bank directors and New York financial interests buying up more of the stock to maintain or acquire control.[50] In Germany, a high proportion of millionaires were engaged in finance and personal ownership of banks appears to have remained common there too.[51] German data on corporate shareholdings in this period is exceptionally sparse as most shares were bearer shares, so shareholding data is verifiable only when disclosed for separate purposes. However, the directors' qualifying shareholdings in Deutsche Bank and similar large quoted *Grossbanken* were modest and shareholdings in such banks were possibly as dispersed as the major French and British banks.[52]

Large, controlling blocks were also found in US insurance. James Hazen Hyde, son of the founder of Equitable Life and its vice-president in 1900, owned 50.2 per cent of the shares.[53] The directors of the (US) Prudential also held a majority of its stock.[54] There were similar family influences on European insurance companies, including Britain's Prudential, but many had been established by broader shareholder affinity groups wishing to promote impartial professional insurance management. Such companies specified widely dispersed shareholding in their articles: Britain's Legal & General, Caledonian, Provident Life, Norwich Union, Clerical, Medical & General and Equity& Law insurance companies, for example, limited the maximum individual shareholding to a low level, varying from 0.8 per cent to 2.5 per cent of the issued voting shares. In such companies, professional management control was contested, if at all, through means other than ownership.

European utilities and other service companies resembled banks, having widely dispersed shareholdings. Their tradition of professional management often went back many decades: London's oldest corporate security in 1900 was probably the New River Company, a water utility dating back to 1619. Cable, gas, dock and water utilities were the largest in 1900, though the newer telephone and electric utilities were growing rapidly. Some of the large shipping and gas companies with public utility characteristics (like Britain's P&O and Gas Light & Coke Company) had railway-style 'democratic' voting rules that encouraged wide share-ownership and professional management entrenchment. Yet other British shipping firms had 'plutocratic' voting and concentrated family ownership.[55] The American banker, J. P. Morgan, felt at home acquiring some of these from plutocratic owners in 1901-1902, but was stumped by the widely-held Cunard.[56] In the United States, plutocratic family ownership was common, for example, in the Pacific Mail shipping line and some local utilities, where ownership stakes in neighbouring systems were built up by entrepreneurs wishing to promote economies of integration.

Industrials: Bastions of Family Control

In almost all countries, personally owned or family firms at the beginning of the twentieth century were still the norm rather than the exception in mining and manufacturing. In this sector, 'plutocratic' voting rules were standard everywhere and there was accordingly more convergence between the Old and New Worlds in ownership dispersion. The natural yardstick against which to measure deviations from these high norms of director control is the listing rule of the largest contemporary stock exchange, London. This required that in any public issue at least two-thirds of any security should be placed in the hands of the public: in other words, the 'vendors' (usually, at this time the founders or inheritors of the firm or group being floated) were allowed to retain ownership of a maximum of just one-third of any issue.[57] This longstanding London rule ensured that there was a sufficiently large free float to guarantee a liquid market for the shares and inhibit 'corners', and was particularly important in a market like London which welcomed small issues.[58]

The London 'two-thirds' rule was copied in Shanghai (where expatriate Britons founded the exchange), but does not seem to have been general.[59] The New York market had less need of such a formal, quantitative rule because its minimum issue size was larger (the average size of New York listed companies was three times that on the leading European exchanges). Two exchanges known later to have similar explicit rules fixing the public's proportion – the New York curb and the Brussels bourse – both adopted less stringent free float requirements: that only 25 per cent and 30 per cent, respectively, must be placed in the hands of the public.[60] Of course, all markets were concerned to have a large free float (that was their business), but their listing committees apparently adopted more *ad hoc* standards, which we have to deduce from individual cases.[61] It is clear, for example, that the NYSE routinely accepted smaller free floats. They listed the quarter of International Harvester stock that the controlling families were prepared to release in 1908, but baulked at the even lower free float the Du Pont family sought around the same time. The Du Ponts, undaunted, resolved the matter by listing only their bonds and preferred stock on the NYSE in 1909, while the common stocks, with exclusive voting control, were traded on the curb and listed on the less fussy San Francisco Exchange. In fact, only a small proportion was traded, the controlling block remaining in the hands of the family and associates.[62]

There is nothing particularly meritorious in the London rule, requiring an extremely high initial 'free float' of two-thirds of the stock (unless, of course, one is of the opinion that family majority ownership is, as Sellars and Yeatman would have put it, a *very bad thing*). Indeed, its objective of creating liquid trading conditions could logically have better been attained by the specification of a minimum aggregate value (rather than minimum proportion) of securities to be listed, an alternative that would only have obliged boards of smaller firms to surrender a voting majority. This alternative is, after all, the listing formula that most world bourses, including London, now adopt. Yet the rule was, historically, of some significance: both because it influenced IPOs for many decades on the world's largest stock market; and, coincidentally, it now offers a tool for the historian estimating the dimensions of the divorce of ownership from control in what is otherwise a statistical dark age.

Inspection of the files of the London listing committee suggests that the two-thirds minimum was strictly interpreted and enforced.[63] Sir William Armstrong wanted to list his integrated steel and engineering business in 1889, but was turned down. The listing committee forced his agreement, two years' later, to reduce the vendors' share to the one-third maximum.[64] Many British limited companies had distributed shares privately among friends, relatives, managers, suppliers or customers before the IPO (and the listing committee considered these to be 'vendors' as much as the directors themselves), so the listing restriction meant that the proportion of shares retained by the board was, in practice, often as low as 25 per cent.[65] With a widely-dispersed public shareholding, 25 per cent was, of course, usually still sufficient for the board to retain *de facto* voting control, but this represented an unusually low degree of family control for industrial companies at this time in any country. Indeed, historians of the US routinely speak of *higher* levels of director shareholding (found in firms like General Electric) as typifying the amazingly advanced, contemporary American levels of the divorce of ownership from control.[66] There were, it is true, ways around the London ownership restriction that limited its impact. The simplest was to list in the US first: the listing committee accepted listing on a major foreign exchange, like New York, as sufficient, without further investigation. This permitted the London exchange to take a share of new issues or listings of American-registered corporations like International Harvester – a valued part of its business – even though they preserved much stronger family ownership than the British rules prescribed.[67]

For British-based entrepreneurs, the favoured avoidance mechanism was similar to that followed by the Du Ponts: to create different classes of capital, to each of which the 33 per cent rule was applied independently. The directors could, for example, issue to the public only preference shares and/or debentures, with limited or no voting rights. In such cases, it was quite common for a family to retain absolute voting control with only one third of the securities: two-thirds could be issued to the public as bonds and preferences, with the family retaining all the ordinaries. (Such dual voting structures for shareholders had been outlawed for German AGs in 1884, but they were perfectly legal in most other jurisdictions and were to become so in Germany later; and, of course, German families were still free to retain control with minority ownership by issuing only non-voting bonds or by pyramiding). The British literature stresses this dual capital structure as the means by which business families retained control: it was, for example, the norm among brewing companies and all but a third of the largest British quoted breweries adopted it.[68] Using these techniques, breweries floating new issues in 1895-1899 had issued only 49 per cent to the public, with the vendors retaining the majority of securities, and, in most cases, voting control.[69] Yet the equivalent breweries in America – including the largest, like Pabst in Milwaukee (whose family owners had rejected promoters' advances from both New York and London) – were usually unquoted. No US breweries were listed on the NYSE in 1900, though some were quoted on London and regional American exchanges.

Matters were very different among large British quoted companies in other industries: almost all these issued a two-thirds majority of voting ordinary shares to the public.[70] Their boards – the majority of Britain's large quoted domestic industrials – were thus constrained to exercise only minority control. It was permissible for determined vendors to restore their share to above a third by buying back shares in the market after an IPO, but, given issue costs and normal post-flotation premiums, this would usually be at a considerable net capital loss and was, presumably, not a widespread practice.[71] Another possibility was that, if acquisitions subsequent to the IPO brought in more board members with a share interest, the board ownership could go above a third again; but, as Franks, Mayer and Rossi have pointed out, the normal result of acquisitions in Britain was the opposite: to further dilute family control by widening shareholding.[72] Thus we can reasonably conclude that a substantial majority of large quoted British industrials by the early twentieth century had family or director shareholdings of no more than 33 per cent and many had less.

A similar benchmark is not available for the US, because there was no similar free float rule on the NYSE. What is clear is that the number of United States industrials that can be confidently identified as having less than a 25-33 per cent board shareholding in 1900 is rather small, but grew thereafter. I have been able to identify only one American non-railway stock – among around 50 for which stockholder data for 1900 are available – with more than 10,000 stockholders.[73] Curiously, this firm – American Sugar – is routinely described as being under Havemeyer family control, though in fact the family had secretly sold most of its dominating stock interest in the firm very soon after its formation in 1891. Henry Havemeyer nonetheless continued to run it like a family fiefdom, employing his relatives, though, when he died, in 1907, his son was too young to secure the anticipated family ‘inheritance’ (if that is the correct term for nepotistic succession to something one does not own!). The presidency of American Sugar actually went to Washington B. Thomas, who held only 2.5 per cent of the common, enough to make him the largest stockholder: there were then 9,200 holders of its preferred and 9,800 owners of common.[74] I have not been able positively to identify any other American manufacturing corporation in 1900 with a similarly widely dispersed stockholding, though at Pullman – as much a railroad operating stock as a manufacturer – board ownership had possibly fallen below 25 per cent.[75]

Warshow’s sample of 1900 companies is chosen to illustrate the growing divorce of ownership from control in America, but few of them show more than the few thousand shareholders that were then routine among large UK industrials (the largest British manufacturer, Coats, though smaller than the largest US industrials, had more shareholders: 25,000 as early as 1896). British firms also often had wider stockholdings than American matched pairs. The Linotype Company Ltd, a British offshoot of the American printing machinery firm, separately quoted in London since 1891, had as many as 7,753 shareholders ten years later, more than all but three large American industrials in Warshow’s list.[76] Its NYSE-quoted American counterpart, Mergenthaler Linotype, with the Mills and Dodge families as major stockholders and directors, had only 2,000 stockholders in 1901 and 2,770 in 1910.[77] Similarly, when BAT passed from control by Duke’s American Tobacco (whose board controlled 56 per cent of its common stock) to (mainly British) control on its London IPO in 1912, ordinary shareholder numbers immediately more than doubled relative to its former (NYSE-quoted) parent’s 1,200, as board control was diluted to the required British IPO level.[78] Warshow's 1900 sample by definition excludes the great US Steel merger of 1901, which created the first US industrial corporation to match the shareholder numbers of the most widely dispersed European firms. US Steel was massively larger than any European industrial (and thus had higher average shareholdings than typical in Europe) but it had similar (and soon even larger) stockholder numbers: initially 17,723 common stockholders and 25,296 preferred stockholders; almost certainly its board's shareholdings were, from its inception, below the British norm.[79]

However, many other large NYSE-listed firms had board stockholding blocks well above the London limit. Procter & Gamble had issued little of its stock (listed in 1890) to the public and refused to publish stockholder accounts, so that in 1903 the NYSE de-listed the company.[80] Other companies that abandoned accounts publication around the same time – like American Sugar and Anaconda – were not listed in the first place and traded only in the NYSE's unlisted department. However, such reluctance to publish accounts was not abnormal in 1900 America: 43 per cent of the largest 100 industrials did not do so, and thus could not be formally listed on the NYSE. Such a situation was inconceivable in the UK, Germany or France, where most large industrials routinely published accounts in 1900 and were listed on the appropriate metropolitan exchange.[81] Some large US industrials were still private partnerships or unquoted companies, but most non-NYSE firms were simply quoted on the curb, listed regionally or traded 'over-the-counter.' These often had tighter board control. Stock in Singer Manufacturing was one of the most difficult to get hold of on the curb, so was quoted with a very wide bid-ask spread.[82] The founders' heirs, their families and the senior managers held most of the shares. There were only 150 stockholders: as the *New York Herald* commented in December 1900, Singer was 'even more of a closed corporation than Standard Oil.'[83] Although Standard was the world's largest company by equity capitalization in 1900 – with a market value of $481 million (only a little below the total for *all* Berlin-listed industrials) – it, too, traded only on the curb. Its new 1899 stocks (replacing the old trust certificates) were held by about 3,500 stockholders, though the 91 of these – mainly founding families - who were represented at the meeting to approve the new stock arrangement held more than two-thirds of the stock.[84] John D. Rockefeller – with 25 per cent – was Standard's largest stockholder and president. Other members of the Rockefeller, Flagler and Harkness families, who had financed the original Standard Oil Company in Cleveland in 1870, together with nine other large stockholders and several manager-directors, constituted the rest of the board, which still held 39 per cent of the stock – again above the London norm - as late as 1911.

Companies coming to a new NYSE listing in the early twentieth century often had stronger vestiges of family ownership than similar London-quoted firms. The McCormicks and other controlling families admitted only trusted Morgan and Rockefeller insiders to an 8 per cent stockholding on forming International Harvester in 1902 and reserved only a quarter for gradual release to the general public (there was no formal IPO) when listed in 1908.[85] In the copper industry, the Rockefeller interests gained control of a majority of the stock of Anaconda in 1899 through their Amalgamated Copper vehicle.[86] The Guggenheims retained large portions of their publicly quoted metal mining and processing companies, like American Smelting and Refining and Nevada Consolidated, with continuing board domination, though not always a majority of votes[87]. The partners in Phelps Dodge – also engaged in consolidating the copper industry – moved toward incorporation and a listing in 1908, but the Dodge, James, McLean and Douglas families continued to dominate the board and held most shares (there were, in 1909, only 133 stockholders).[88] The partners in the Baldwin Locomotive Works incorporated in 1909 and listed on the NYSE in 1911, but the owning families continued to dominate the board.[89]

Even for American companies that issued substantial amounts of voting stock to outside investors, the proportions sold to the public were typically below the London norm. Goldsmith's analysis of the industrial and miscellaneous common stock issues on the NYSE and elsewhere, reported in the *Commercial and Financial Chronicle*, suggests that for the years 1905-1914 the proportion sold to the public was only 34 per cent.[90] A widely-held firm like American Car & Foundry (no manufacturing firm except American Sugar had more than its 7,747 shareholders in 1900 in Warshow's list), only issued to the public 50 per cent of its equity in 1899, below the London minimum for a free float. It is difficult to conclude otherwise than that the American firms of the early twentieth century that had ownership as widely dispersed as the *typical* large British industrial company were a small minority of large US firms. It was perfectly normal for the boards of large American industrials personally to own more than a third of the common stock and in many cases their holdings were higher.

In industrials, continental Europe was often nearer to America than to Britain, with more pervasive and persistent insider ownership by directors and their families of more than 33 per cent of publicly quoted companies, though there were exceptions. At Saint-Gobain, there were in 1900 only 4,600 shares, but the board collectively owned only 260, or under 6 per cent of them.[91] The number of shareholders increased from 375 in 1862 to 1,400 in 1907, but French historians point out that almost 80 per cent of directors between 1830 and 1930 were recruited from only ten families. (It rarely occurs to readers of such stark indicators of family nepotism that it might be hard to find a similar American corporation over the same period that was so open!) At Le Creusot, the Schneider family had started their reign with only 5 per cent of the shares, but had the backing of two substantial shareholders: these were still present on the board a century later. The De Wendel family concerns did not call on outside capital until 1908 and then raised it in Germany rather than France. The large coal mines of the Nord and Pas de Calais were in the nineteenth century under the control of a limited number of local families, though their shares were quoted on the Lille exchange and after 1900 became so widely held that it was said there were as many shareholders as coalminers, that is tens of thousands.[92] The Anzin, Béthune and Courrières companies were, however, still classed as owner-controlled, with Bruay and Lens more widely-held.[93]

More generally, Leroy-Beaulieu warned French shareholders intending to go to company meetings that they would usually find the directors had a majority of the votes, so American-style plutocratic ownership, may also have been common in French industrials.[94] The widespread share ownership characterizing the French stock market was focused on railways, financials and the Suez Canal, and it was the contemplation of those sectors that caused contemporary Frenchmen to wax lyrical about the democratization of share-ownership.[95] Yet the market capitalization of Paris industrial equities in 1900 (see Table 1 above) was actually more than a third larger than that of Berlin, so (even allowing for stronger regional bourses in Germany) the traditional story of the persistence of French family firms in *industry*, at least relative to Germany, may have been exaggerated in the telling.[96]

In Germany, industrial firms quoted on the Berlin Stock Exchange were also still majority-controlled by plutocratic families to a degree that would have fallen foul of stock exchange rules in the UK. Three quarters of the 502 German businessmen worth more than $1.44 million in 1911 ran privately-owned firms and partnerships or owned more than 50 per cent of the stock in a company.[97] Typical, except in its large size, was the Siemens electrical enterprise: majority-owned by the Siemens family. The new 9.5 million mark share issue of 1900 preserved this: 53 per cent to the family and 47 per cent to the public. When Siemens took over Schuckert in 1903, care was taken to adopt a complex pyramid structure that still preserved the family majority, despite the large increase in outside capital required.[98]

Many German entrepreneurs may have remembered what Fritz Krupp had done to Hermann Gruson in 1892: Krupp, secure as the absolute owner of his own personal enterprise, turned up at the newly floated Gruson AG meeting, having bought the majority of that quoted company's shares on the market, and simply kicked the former owner out.[99] In a small sample of German quoted companies issuing prospectuses in the 1890s and 1900s, Franks et al report only 22-32 voters at the average shareholders' meeting, though some of these would be banks or others voting as proxies for a wider range of individuals. However, the directors of these companies alone had 70 per cent of the votes in the 1890s sample and 61 per cent in the 1900s sample. The largest *single* shareholder in these companies – who surely would have sat on or at least been represented on the *Aufsichtsrat* (supervisory board) if not the *Vorstand* (management board) – *alone* averaged more than a third of the votes, that would have been the normal British limit for the whole board.[100]

There is also direct evidence of shareholdings above the London limit in many individual German industrials, apart from the obvious cases like Krupp and Thyssen which were entirely family-owned and unquoted. The Haniel family in Gutehoffnungshűtte, and the Hoesch and Stinnes families in their coal and steel enterprises, maintained effective family control[101] The Mannesmann family had lost control of its steel tube enterprise in 1893, but the Siemens and Langen families, with bank shareholder support, had board control.[102] In BASF, the Siegle and Knosp families of Stuttgart still held a controlling majority of the shares, until the 1925 merger diluted it.[103] However, in other German firms, entrepreneurs and managers with relatively modest personal shareholdings were also found: for example, Rathenau at AEG and Kirdorf at Gelsenkirchen.

Calibrating National and Chronological Differences

The two largest equity markets shown in Table 1 encompassed the contemporary extremes of substantial divorce of ownership from control (London) and persistent personal capitalism (New York). In the largest quoted sector in 1900, railways, share ownership was often widely dispersed, but board control through dominant shareholdings of a significant railroad remained normal in America and rare in Britain. It seems reasonable to suppose that directors controlled only around 2 per cent of a typical British railway's votes, whereas the figure in the US was possibly nearer 25 per cent. Personal control was also more common in US banks: an average board share of 30 per cent of stockholder votes in the US and 5 per cent in Britain is not implausible for quoted banks. Utilities figures are least good, but the mixed voting structure would suggest national levels and relativities very similar to those in the financial sector. Among large industrials, plutocratic family ownership (often with directors owning a majority of common stock) remained more common in America, where families retained control by methods such as voting trusts, limiting the free float, or issuing non-voting stock. The latter method was also permitted by British listing rules, so that the 33 per cent London limit was exceeded for directors' *votes* in many such cases, but this was possibly outweighed by the large firms with more widespread shareholdings, so the benchmark of 33 per cent seems reasonable as a *typical* British level of board voting control in industrials in 1900. The range of examples we have found, and the paucity of cases below the London limit, suggests that a comparable representative figure for quoted American industrials at the same time was, plausibly, 50 per cent board ownership.

Weighting these crude estimates of typical sectoral levels of board voting control in the US and UK, by the sector proportions quoted on leading national stock exchanges in Table 1, suggests a representative level of director voting control on their leading exchanges in 1900 of 13 per cent in the UK and of 33 per cent in the US. Making the appropriate additional allowance for the much higher US level of industrial and financial stock not officially listed on the NYSE – even without allowing for likely higher levels of director ownership in the smaller firms quoted on regional exchanges – would lead to a higher figure for the US; the corresponding British adjustment would be small (many UK regional exchanges followed the London two-thirds rule). On the other hand, no plausible modification of these guesstimates could produce a higher figure for the US than the UK:

we can have considerable confidence in the ranking, though the precise levels are subject to wide potential error.

A similar exercise is also possible for France and Germany, but precision is even more inappropriate. France was similar to Britain in railways, finance and utilities and to America in industrials: applying the same weighting by sector would give a typical French level for 1900 of 17 per cent board ownership. Germany had few quoted railways, but it had a large financial sector which was more widely held than many American firms, so it may plausibly be reckoned as around the American level – that is, 33 per cent board ownership - overall. Combining these four countries' figures, in the ratio of their relative equity capitalization totals in Table 1, suggests a typical level of board ownership on the four largest domestic equity markets of 1900 of around 22 per cent.

These findings would not have surprised contemporaries. It might be objected that, if that were so, a European author would have written Berle and Means earlier. One explanation of this apparent lacuna is that contemporaries did not remark on the phenomenon because it was the (slowly evolving) norm in European companies, while pundits only write of rapid, noticeable changes: such as the remarkably fast retreat from personal capitalism in the 1920s USA that Berle and Means chronicled. Yet Europeans did notice the phenomenon. As early as 1877, Edwin Phillips bemoaned the inability of British shareholders to control 'self-elective despots,' that is, railway company managers.[104] Around the turn of the century pundits wondered – in terms anticipating Jensen in the 1980s rather than Berle and Means in the 1930s - whether the British penchant for professional managers with modest ownership interests was advancing too far, musing whether it might be better to 'let the millionaires come in and take control, as they have done in America.'[105] In France, Alfred Neymarck celebrated the democratization of share ownership in dozens of popular and scholarly articles.[106] After the turn of the century, references to the separation of ownership and control were the common currency of European economists and businessmen. Keynes' 1924 lecture, *The End of Laissez-Faire*, did not claim originality when he expatiated on the difficulty of evaluating the consequences of the well-known phenomenon of the separation of ownership from control. Berle and Means were not internationally aware, but even they, when introducing the concept to a transatlantic audience newly experiencing the phenomenon, approvingly referenced its treatment in Walther Rathenau's 1918 book *Von Kommenden Dingen*.[107]

Why, then, do these findings shock some historians? The prevailing view is mainly based on the experience in manufacturing, where, as we have seen, the four countries were much closer together than in the rail, finance and utility sectors (then the dominant constituents of equity markets). It is easy to see, in areas like manufacturing, where the British had only a modest lead in divorcing ownership from control, how the erroneous belief that America led in promoting the phenomenon could take root. Alfred Chandler's key error, for example, is not in diagnosing personal ownership on British industrial boards (there was a lot of it about), but in creatively imagining that it was not more prevalent in the contemporary US and Germany.[108] Many historians of Britain – the recent critiques of 'declinism' have plausibly alleged – are programmed to discern the causes of decline in everything, and, since the divorce of ownership from control appeared to go along with modernity and professionalism, it was an obvious candidate for the usual treatment.[109] Also more frequently noted now is the Panglossian, Whig perspective of much work on American business history.[110] Although this is the polar opposite of the British deformation, it mirrors its distortions. Relentlessly emphasizing the US's modernity and success, a well-trained exponent betrays not the slightest glimmer of definitional hesitation when pronouncing fourth-generation family inheritors of 90 per cent of a stock corporation to be 100 per cent, all-American, 'professional managers.' This is not serious historical analysis.

The many equities of companies excluded from Table 1 – quoted in 1900 on smaller world bourses or quoted on London, Paris and Berlin, but mainly operating abroad – also require consideration. In the rest of Europe, it was quite common for companies to adopt variants of the Anglo-French voting model and we know that on some stock exchanges, like Brussels, stock-ownership was even more widespread than in France.[111] The Rothschild and Gomperz influence on Viennese banking was proverbially strong, but the Rothschilds, the largest shareholders in Credit Anstalt before the First World War, had barely 10 per cent of the votes.[112] It might be thought that enterprises operating in the less advanced, extra-European economies would tend to be more personally owned, but such evidence as we have suggests that they did not emulate the distinctive contemporary American model of personal capitalism. In Japan, for example, while enterprises like Mitsui were still unquoted partnerships, in sectors like cotton, banks and railways, where companies *were* quoted in 1900, they were quite widely held: Japan's more concentrated quoted shareholding structures were a later development.[113] Egypt's largest company, Suez, was quoted on many European exchanges, widely held and had French-style voting rules entrenching its professional managers.[114] India's largest company, the Great Indian Peninsula Railway, and other railways in the developing world financed from London, Paris and elsewhere in Europe, the voting structure followed the Anglo-French 'democratic' rather than American 'plutocratic' model. The large numbers of overseas banks quoted on London and Paris, like the Hongkong & Shanghai Banking Corporation, typically had extensive shareholdings, and sometimes 'democratic' voting structures.[115] Accordingly, ownership in such 'Third World' companies was likely as widely divorced from control as in France and Britain.

In the British South Africa Company's London IPO of 1892 – essentially a start-up – the concessionaires received less than 10 per cent of the shares, with the rest being issued (for cash) to 8,000 new public shareholders.[116] One sample of 260 British share registers suggests that foreign and colonial companies actually had slightly more shareholders than domestic ones, on average; they were also somewhat larger; and they rarely included manufacturing firms (in which family ownership was everywhere more common).[117] There were exceptions to this pattern: the Sassoon family's dominant 30 per cent shareholding in the Imperial Bank of Persia was nearer to the American than the British banking model, while the Samuel family retained tight voting control of Shell Transport & Trading, the London-quoted oil company with largely overseas operations.[118] Nonetheless, the balance of evidence suggests that, if any modification is to be made to the estimate of the global 1900 degree of ownership and control, based on the four large countries in Table 1, it is as likely to be in a downwards as an upward direction. It is America's high level of personal ownership and low free floats that is distinctive.

Slowly, but surely, America's leading industrial firms *did* list on New York: Carnegie Steel (reborn as the core of US Steel) in 1901, Standard Oil in 1920, Procter & Gamble in 1929, Gulf Oil in 1943, Alcoa in 1951. Shareholdings in listed firms also became more dispersed, as directing families trickled out their stocks to the public. Berle and Means really *could,* by the 1930s, celebrate America's having caught up with Britain and overtaken continental Europe in the divorce of ownership from control: by then, in the typical American quoted company, the managers owned only 13 per cent of the equity, a figure identical to my crude London estimate for 1900.[119] At the same time as the grip of American owning families faltered, the rise in progressive taxation after 1916 increased the relative attraction of stock ownership to non-plutocrats and the 1920s stock boom popularized the equity culture.[120] Morgan's dealings with a few elite institutions and wealthy individuals were supplemented by extensive small investor participation.[121] In 1900 it is hard to trace more than a half dozen US companies that numbered their stockholders in above four figures (but easy to do so in Europe). By the 1930s, several corporations (in America as in Europe) had six-figure totals, and AT&T, with 642,180 stockholders in 1931, was the world's most widely held stock.[122]

America's enthusiastic and decisive acceptance of such changes suggests that they were not without positive consequences. The pace of change in the US in the decades following the turn of the century was much faster than that in Europe. That many continental Europeans at the same time turned away from stock markets was not so much due to their markets' own shortcomings, as to the ravages of wars, revolutions and inflations that fatally afflicted their continent and abolished (or destroyed faith in) their originally more developed national equity culture.[123] It was later a short step for those with faulty memories to reconstruct the financial and business past to match the capital market present. Some historians, lawyers and economists even persuaded themselves that the US had invented this aspect of modern capitalism; or that Anglo-Saxon common lawyers, triumphing over the inflexible, continental, Franco-Roman model, had done so.[124] Meanwhile, for some continentals, the equity culture of stock exchanges and widespread share ownership, a culture they had actually pioneered, was reconstructed as an Anglo-Saxon plot to subvert their social order.[125]

Conclusion and Implications

The stereotypes of some received literature, about family firms, professional management and modernity, are not only empirically unreliable, but imply relationships with performance variables that are quite unconvincing.[126] The diversity of national institutional forms and corporate development paths revealed by the alternative perspectives described here offers a richer palette of variation for historical analysis of financial markets. This is not a convergent world smoothly evolving towards the end of history, in which one ideal model of ownership and corporate governance is pioneered in one country, soon revealed as unequivocally superior, and adopted with acclaim by successful followers. Metaphors of divorce, which imply a decisive transition to a preferred state, also seem rather inappropriate: whatever happened to relations between owners and managers was rather a slow and equivocal evolution. It was also a road apparently strewn with path dependencies, punctuated equilibria and possible wrong turnings. For example, contests for corporate control were common in widely-held US (and, more rarely, in European and Japanese) corporations at the beginning of the century, but were then suppressed everywhere for decades, before reappearing, in slightly modified form, in Britain in the 1950s and the US in the 1960s. Countries that pioneered widespread shareholding and the separation of ownership from control, like France and

Japan, later re-appear as exponents of the *noyau dur* or *keiretsu* of strong shareholder control and corporate interlinks.

Any simple equation of any of these institutional mutations with efficient corporate management or with desirably fluid (or, according to taste, desirably committed and stable) capital markets is naïve.[127] The picture is rather one of unseeing, market-driven, but convention-constrained, experimentation, and of evolving routines of trust, reciprocity and quality certification which sometimes succeed and sometimes fail. There were also stochastic shocks of war, occupation, revolution or inflation that lurched into reverse financial systems that previously appeared to be working passably well. The differently structured national financial and corporate systems that emerged had weaknesses as well as advantages. The results, in terms of outcomes for growth, or for the intermediation of corporate capital demands and investor portfolio opportunities, depended not only on the degree of divorce of control from ownership (and closely related issues such as the existence of a market for corporate control), but on evolving informational requirements for public companies, changing leverage ratios and their incentive effects, antitrust and securities laws, the governance of relationships with other stakeholders, and wider characteristics of the corporate environment, like the change from quasi-monopolized, regulated (and mainly national) railway and other utilities as the dominant corporate form at the beginning of the twentieth century to the (mainly globally competitive) industrial and service corporations of today. This article raises more questions than it answers, but I hope it establishes the need to develop a different, and richer, model than that presented in much of the recent literature, if we are to make progress in understanding the complex, microeconomic roots of differential macroeconomic performance

References

Abelshauser, Werner, Wolfgang von Hippel, Jeffrey Allan Johnson and Raymond G. Stokes. *German Industry and Global Enterprise. BASF: The History of a Company.* Cambridge: Cambridge University Press, 2004.

Albert, Michel. *Capitalisme contre Capitalisme.* Paris: Seuil, 1991.

Anon. *Documents, Mémoires et Notes Monographes. Congrès International des Valeurs Mobilières.* 4 vols. Paris : Du Pont, 1900.

_____. A *List of the Names of all Proprietors of Stock of the Bank of England qualified to Vote.* London : Bank of England, 1900.

Augustine, Dolores L. *Patricians and Parvenus: Wealth and High Society in Wilhelmine Germany.* Oxford: Berg, 1994.

Barker, Theo C. and Michael Robbins. *London Transport: A History.* Vol. 2. London: George Allen & Unwin, 1974.

Baruch, Bernard. *My Own Story.* New York: Holt, 1957.

Berle Adolf A., and Gardiner C. Means' *The Modern Corporation and Private Property.* Revision of original 1932 edition. New York: Harcourt, Brace & World, 1968.

Bernheim, Alfred L. and Margaret Grant Schneider, eds. *The Security Markets.* New York: Twentieth Century Fund, 1935.

Board of Trade, United Kingdom. *Return Showing Holders of Debentures, Preferred and ordinary Stocks of Railways in the UK, 16 December 1902*. London: HMSO, 1903.

Bonin, Hubert. *Suez: du Canal à la Finance (1858-1987).* Paris: Economica, 1987.

Bouvier, Jean, François Furet and Marcel Gillet. *Le Mouvement du Profit en France au XIX e Siècle.* Paris: Mouton, 1965.

Boyce, Gordon. *Information, Mediation and Institutional Development: the rise of large-scale enterprise in British shipping, 1870-1919*. Manchester: Manchester University Press, 1995.

Brown, John K. *The Baldwin Locomotive Works 1831-1915.* Baltimore, MD: Johns Hopkins University Press, 1995.

Buder, Stanley. *Pullman: An Experiment in Industrial Order and Community Planning, 1880-1930.* New York: Oxford University Press, 1967.

Bureau of Corporations, Washington, DC. *Report on the Tobacco Industry.* Parts 1 and 2. Washington DC: GPO, 1909 and 1911.

__________________. *The International Harvester Co.* Washington: GPO, 1913.

Burkart, Mike, Fausto Panunzi and Andrei Shleifer. "Family Firms." *NBER Working Paper Series* 8776, Feb. 2002.

Burton H and D.C. Corner, *Investment and Unit Trusts in Britain and America.* London: Elek, 1968.

Caron, François. *Histoire de l'Exploitation d'un Grand Réseau: la Compagnie du Chemin de Fer du Nord 1846-1937*. Paris: Mouton, 1973.

Carosso, Vincent P. *The Morgans: Private International Bankers 1854-1913*. Cambridge, MA: Harvard University Press, 1987.

Cassis, Youssef. *Les Banquiers de la City à l'époque Ēdouardienne.* Geneva: Droz, 1984.

Chandler, Alfred D., Jr. *Scale and Scope: The Dynamics of Industrial Capitalism.* Cambridge MA: Belknap, 1990.

______________and Herman Daems, eds. *Managerial Hierarchies: Comparative Perspectives on the Rise of the Modern Industrial Enterprise.* Cambridge, MA: Harvard University Press, 1980.

______________and Stephen Salsbury. *Pierre S. Du Pont and the Making of the Modern Corporation.* New York: Harper & Row, 1971.

Cheffins, Brian R. "Mergers and the Evolution of Patterns of Corporate Control: The British Experience." *Business History* 46, no.2 (April 2004): 256-284.

Clapham, Sir John. *The Bank of England: A History.* Vol 1. 1694-1797. Cambridge: Cambridge University Press, 1944.

Clarke, Peter and Clive Trebilcock, eds. *Understanding Decline: Perceptions and Realities of British Economic Performance.* Cambridge: Cambridge University Press, 1997.

Cleland, Robert Glass. *A History of Phelps Dodge, 1834-1952.* New York: Knopf, 1952.

Cleveland, Frederick A. and Fred Wilbur Powell. *Railroad Finance.* New York: Appleton, 1912.

Cleveland, Harold van B. and Thomas F. Huertas. *Citibank 1812-1970.* Cambridge, MA: Harvard University Press, 1985.

Colli, Andrea. *The History of Family Business, 1850-2000.* Cambridge: Cambridge University Press, 2003.

Crosland, C.A.R. *The Future of Socialism*. London: Cape, 1956.

Crouzet, François. “Business Dynasties in Britain and France.” In *Elites, Minorities and Economic Growth*, edited by Elise S. Brezis and Peter Temin. Amsterdam: Elsevier, 1999.

Dahrendorf, Ralf. *Society and Democracy in Germany.* London: Weidenfeld & Nicolson, 1968

Davies, Robert Bruce. “The International Operations of the Singer Manufacturing Company, 1854-1895.” PhD thesis, University of Wisconsin, 1967.

_________________. *Peacefully Working to Conquer the World: Singer Sewing Machines in Foreign Markets, 1854-1920.* New York: Arno Press, 1976.

Davis, Lance E. and Robert J Cull. *International Capital Markets and American Economic Growth, 1820-1914.* New York: Cambridge University Press, 1994.

Davis, Lance E. and Robert A. Huttenback. *Mammon and the Pursuit of Empire: The Political Economy of British Imperialism, 1860-1912.* Cambridge: Cambridge University Press, 1986.

De Long, J. Bradford. “Did J. P. Morgan’s Men Add Value?” In *Inside the Business Enterprise*, edited by Peter Temin. Chicago: University of Chicago Press, 1991.

Dennison, S. R. and Oliver MacDonagh. *Guinness, 1886-1939: From Incorporation to the Second World War.* Cork: Cork University Press, 1998.

Desai, Mihir, Dhammika Dharmapala and Winnie Fung. “Taxation and the Evolution of Aggregate Corporate Ownership Concentration,” NBER Working Paper no. 11469, 2005.

Dimson, Elroy, Paul Marsh and Mike Staunton. *Triumph of the Optimists: 101 Years of Global Investment Returns*. Princeton, NJ: Princeton University Press, 2002.

Dorian, Max. *The Du Ponts: From Gunpowder to Nylon.* Boston: Little, Brown, 1962.

Dozier, Howard Douglas. *The History of the Atlantic Coast Railroad*. Boston: Houghton Mifflin, 1920.

Dreier, Thomas. *The Power of Print – and Men.* New York: Mergenthaler Linotype, 1936.

Dunlavy, Colleen. "Corporate Governance in 19th Century Europe and the United States: The Case of Shareholder Voting Rights." In *Corporate Governance: The State of the Art of Emerging Research*, edited by Klaus J. Hopt *et al.* Oxford: Clarendon Press, 1998.

Eichner, Alfred S. *The Emergence of Oligopoly: Sugar Refining as a Case Study.* Baltimore, MD: Johns Hopkins Press, 1969.

Farrell, Betty G. *Elite Families: Class and Power in Nineteenth Century Boston.* Albany, NY: State University of New York Press, 1993.

Fear, Jeffrey and Christopher Kobrak. "Diverging Paths: Accounting for Corporate Governance in America and Germany." *Business History Review* 80 (Spring 2000): 1-48.

Fohlin, Caroline. *Finance Capitalism and Germany's Rise to Industrial Power*. New York: Cambridge University Press, 2006.

Franck, Bernard. "La Politique de dividendes des houillères du bassin du Pas-de-Calais au XIXe siècle." *Entreprises et Histoire* 22 (Octobre 1999): 93-103.

Franks, Julian, Colin Mayer and Stefano Rossi. "Spending Less Time with the Family: The Decline of Family Ownership in the UK." In *A History of Corporate Governance around the World*, edited by Randall K. Morck. Chicago: University of Chicago Press, 2005: 581-611.

Franks, Julian and Hannes F. Wagner. "The Origins of the German Corporation: Finance, Ownership and Control." Paper presented to CEPR Conference on Early Securities Markets, Berlin, Sept. 2004.

Freedeman, Charles E. *The Triumph of Corporate Capitalism in France, 1867-1914.* Rochester NY: University of Rochester Press, 1993.

Goldsmith, Raymond W. *A Study of Saving in the United States.* 3 vols. Princeton NJ: Princeton University Press, 1955.

____________________. *Comparative National Balance Sheets : A Study of Twenty Countries, 1688-1978.* Chicago: University of Chicago Press, 1985.

Goyens, Georges. *Les Opérations de Bourse et les Agents de Change.* Brussels: Bruylant, 1930.

Gourvish, Terence R. and Richard G. Wilson. *The British Brewing Industry, 1830-1980.* Cambridge : Cambridge University Press, 1994.

Greenwood, William John. *American and Foreign Stock Exchange Practice.* New York: Financial Book Co., 1921.

Grinling, Charles H. "The Position of the Home Railway Shareholder." *Bankers' Magazine* 73 no. 694 (Jan. 1902): 56-60.

Gueslin, André. "Banks and State in France." In *Finance and Financiers in European History, 1880-1960*, edited by Youssef Cassis. Cambridge: Cambridge University Press, 1991: 63-91.

Hallberg, Charles W. *The Suez Canal: Its History and Diplomatic Importance.* New York: Columbia University Press, 1931.

Hannah, Leslie. "Marshall's 'Trees' and the Global 'Forest': Were 'Giant Redwoods' Different?" In *Learning by Doing in Markets, Firms and Countries*, edited by Naomi Lamoreaux, Daniel M. G. Raff and Peter Temin. Chicago: University of Chicago Press, 1999, 253-93.

____________. “The ‘Hollywood History’ of Corporate Governance.” Forthcoming, *Enterprise and Society.*

Hawkins, David F. “The Development of Modern Financial Reporting Practices among American Manufacturing Corporations.” *Business History Review* XXXVII, no.3 (Autumn 1963): 135-168.

Henriques, Robert. *Marcus Samuel.* London: Barrie & Rockliff, 1960.

Hidy, Ralph W. and Muriel E. Hidy. *Pioneering in Big Business, 1882-1911.* New York: Harper, 1955.

Hidy, Ralph W. *et al*. *The Great Northern Railway: A History.* Cambridge, MA: Harvard Business School Press, 1988.

Holderness, Clifford G., Randall S. Kroszner and Dennis P. Sheehan. “Were the Good Old Days that Good? Changes in Managerial Stock Ownership since the Great Depression.” *Journal of Finance* 54, no. 2 (April 1999): 435-469.

Holmes A. R. and Edwin Green. *The Midland: 150 Years of Banking.* London: Batsford, 1986.

Hoyt, Edwin P., Jr. *The Guggenheims and the American Dream.* Place of publication not given: Funk & Wagnall, 1967.

Huebner, Solomon. “The Distribution of Stockholdings in American Railroads.” *Annals of the American Academy of Political and Social Science* 22 (1903): 475-490.

_______________. *The Stock Market.* New York: Appleton, 1922.

Ingall, Godefroi D, and George Withers. *The Stock Exchange.* London: Arnold, 1904.

Iwai, Katsuhito. “The Nature of the Business Corporation: Its Legal Structure and Economic Functions.” *Japanese Economic Review* 53, no.3 (Sept. 2002): 243-273.

James, Harold. *Family Capitalism*: *Wendels, Haniels, Falcks, and the Continental European Model.* Cambridge MA: Harvard University Press, 2006.

Jefferys, James B. *Business Organisation in Great Britain, 1856-1914.* New York: Arno, 1977.

Jensen, Michael C. "Eclipse of the Public Corporation." *Harvard Business Review* 67 (Sept.-Oct. 1989): 61-74.

Jones, Geoffrey. *Banking and Empire in Iran: The History of the British Bank of the Middle East.* Cambridge: Cambridge University Press, 1986.

____________. *British Multinational Banking 1830-1990*. Oxford: Clarendon, 1993.

_____________*The Evolution of International Business: an Introduction*. London: Routledge, 1996.

Jordan, William and F. Gore-Brown. *A Handy Book on the Formation, Management and Winding-Up of Joint Stock Companies.* London: Jordan, 1892.

Keynes, John Maynard. *The End of Laissez-faire.* London: Hogarth, 1926.

Kindleberger, Charles. *Economic Growth in France and Britain, 1851-1950.* Cambridge MA: Harvard University Press, 1964.

Kinghorn, Janice Rye, and John Vincent Nye. "The Scale of Production in Western Economic Development: A Comparison of Official Industry Statistics in the United States, Britain, France and Germany, 1905-1913." *Journal of Economic History* 56, no. 1 (March 1996): 90-112.

Klein, Maury. *The Union Pacific: rebirth 1894-1909*. New York: Doubleday, 1989.

Lamoreaux, Naomi R. *Insider Lending: Banking, Personal Connection and Economic Development in Industrial New England.* New York: Cambridge University Press, 1994.

_________________, Daniel M. G. Raff and Peter Temin. “Against Whig History.” *Enterprise and Society* 5, no. 3 (2004): 376-387.

Landes, David S. “French Entrepreneurship and Industrial Growth in the Nineteenth Century.” *Journal of Economic History* 9 no 1 (May 1949): 45-61.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert W. Vishny. “Law and Finance.” *Journal of Political Economy* 106 (Dec. 1998): 1113-1155.

Lazonick,William. “Controlling the Market for Corporate Control: the Historical Significance of Managerial Capitalism.” *Industrial and Corporate Change* 1, no.3 (1992): 445-488.

Leonard, W. N. “The Decline of Railroad Consolidation.” *Journal of Economic History* 9 (May 1949): 1-24.

Leroy-Beaulieu, Paul. *L’Art de Placer et de Gérer sa Fortune.* Paris : Delagrave, 1904.

Lesage, Charles. *L’Achat des Actions de Suez.* Paris: Plon, 1906.

Lévy-Leboyer, Maurice. “The Large Family Firm in French Manufacturing.” In *Family Business in the Era of Industrial Growth: Ownership and Management*, edited by Akio Okochi and Shigeaki Yasuoka. Tokyo: University of Tokyo Press, 1984.

____________________. “Hierarchical Structure, Rewards and Incentives in a Large Corporation: The Early Managerial Experience of Saint-Gobain.” In *Recht und Entwicklung der Grossunternehmen im 19. und frűhen 20 Jahrhundert*, edited by Norbert Horn and Jűrgen Kocka. Gőttingen: Vandenhoeck & Ruprecht, 1979.

Liefmann, Robert. *Die Unternehmungsformen.* Stuttgart: Moritz, 1921.

Lowenfeld, Henry. *Investment: An Exact Science.* London: Financial Review of Reviews, 1907.

Lyon, W. H. *Capitalization.* Boston: Houghton Mifflin, 1913.

McCormick, Cyrus. *The Century of the Reaper.* Boston: Houghton Mifflin, 1931.

McKendrick, Neil and John Newlands. '*F & C.' A History of the Foreign & Colonial Investment Trust.* London: Kavanagh, 1999.

Manchester, William. *The Arms of Krupp, 1587-1968.* Boston: Little, Brown, 1968.

Marcosson, Isaac F. *Anaconda.* New York: Dodd Mead, 1957.

März, Eduard. *Austrian Banking and Financial Policy: Creditanstalt at a Turning Point, 1913-1923*. London: Weidenfeld & Nicolson, 1984.

Meyer, Balthasar H. *A History of the Northern Securities Case*. New York: Da Capo (1972 reprint of 1906 original).

Miwa, Yoshiro and J. Mark Ramseyer. "Corporate Governance in Transitional Economies: Lessons from the Prewar Japanese Cotton Textile Industry." *Journal of Legal Studies* 29 (Jan. 2000): 171-203.

______________________________ . "Banks and Economic Growth: Implications from Japanese History." *Journal of Law and Economics* 45 (April 2002) 127-164.

Moody, John & Co. *Manual of Corporation Securities 1903.* New York: Moody, 1903.

Morris, Ray. *Railroad Administration.* New York: Appleton, 1910.

Mott, Edward Harold. *Between the Ocean and the Lakes: The Story of Erie.* New York: Collins, 1901.

Neymarck, Alfred. *Finances Contemporaines.* 7 vols. Paris : Guillaumin, 1902-1911.

______________. "Une Statistique Nouvelle sur le Morcellement des Valeurs Mobilières." *Journal de la Société de Statistique de Paris* 44 (1903) 127-142.

______________. "La Statistique Internationale des Valeurs Mobilières." *Journal de la Société de Statistique de Paris* 56 (1915): 322-350, 353-90, 411-91; and 57 (1916): 5-32.

North, Douglas C. "Life Insurance and Investment Banking at the Time of the Armstrong Investigation of 1905-1906." *Journal of Economic History* 14, no.3 (Summer 1954): 209-228.

Passer, Harold C. *The Electrical Manufacturers, 1875-1900.* Cambridge MA: Harvard University Press, 1953.

Passow, Richard. *Die wirtschaftliche Bedeutung und Organisation der Aktiengesellschaft*. Jena: Fischer, 1907.

Payne, Peter L. "The Emergence of the Large-scale Company in Great Britain, 1870-1914." *Economic History Review* 20, no. 3 (Dec. 1967): 519-542.

Perrot, Marguerite. *Le Mode de Vie des Familles Bourgeoises 1873-1953*. Paris: FNSP, 1981.

Phillips, Edwin. *Railway Autocracy.* London: Longmans, Green, 1877.

Pujo Committee, *Report of Evidence on Concentration of Control.* House of Representatives, 62nd Congress, 3rd session, Report no 1593. Washington: GPO, 1913.

Pyle, Joseph Gilpin. *The Life of James J. Hill.* Vol. 2. New York: Doubleday, Page, 1916.

Rajan, Raghuram G, and L. Zingales. "The Great Reversals: The Politics of Financial Development in the Twentieth Century." *Journal of Finance* 69 (2003): 5-50.

Ripley, William Z. *Railroads: finance and organization*. New York: Longman, 1912.

Schisgall, Oscar. *Eyes on Tomorrow: The Evolution of Procter & Gamble.* Chicago: Doubleday, 1981.

Siemens, Georg. *History of the House of Siemens.* Vol. 1. *The Era of Free Enterprise.* Freiburg: Alber, 1957.

Smith, George David and Richard Sylla. "The Transformation of American Capitalism: An Essay on the History of American Capital Markets." *Financial Markets, Institutions and Instruments* 2, no.2 (May 1993): 1-62.

Smith, Michael Stephen. *The Emergence of Modern Business Enterprise in France, 1800-1930.* Cambridge MA: Harvard University Press, 2006.

Thomas, W. A. *The Provincial Stock Exchanges.* London: Cass, 1973.

___________. *Western Capitalism in China: A History of the Shanghai Stock Exchange.* Aldershot: Ashgate, 2001.

Vanderlip, Frank A. *From Farm Boy to Financier*. NY: Appleton, 1935.

Van Oss, S. F. *American Railroads as Investments: A Handbook for Investors in American Railroad Securities.* London: Effingham Wilson, 1893.

___________. "The 'Limited Company' Craze." *Nineteenth Century* (May 1898): 731-744.

Veenendaal, Augustus J., Jr. *Slow Train to Paradise: How Dutch Investment Helped Build American Railroads.* Stanford CA: Stanford University Press, 1996.

Warshow, H. T. "The Distribution of Corporate Ownership in the United States." *Quarterly Journal of Economics* 39, no.1 (Nov. 1924): 15-38.

Wellhoff, S. *Etude sur les Sociétés par Actions*. Alexandria : Mourès Penasson, 1917.

Yonekawa, Shin'ichi. "A Comparative Business History of Management in the Cotton Industry." *Japanese Yearbook on Business History* 11 (1994): 75-97.

Notes

[1] Crosland, *Future;* and Dahrendorf, *Society,* for the political response; Landes, "French Entrepreneurship;" Kindleberger, *Economic Growth* and Chandler, *Scale,* for representative historians. The notion that the concept is due to Berle and Means (*Modern Corporation*) is widespread in the literature, but compare pp. 33-4, above.

[2] Currencies have been converted to 1900 $US at precise contemporary exchange rates, though a rounded rate is used where appropriate (for example, in describing £10 shares as worth 'around $50').

[3] Although they then had separate, different and changing technical meanings in various countries, I use the terms 'stocks' and 'shares' interchangeably in the modern mid-Atlantic sense, and use the term 'equity' as a shorthand for common stocks/ordinary shares alone (though preferred stocks - usually fixed interest and often non-voting - are technically also equity, not debt).

[4] Davis and Cull, *International Capital Markets,* 38.

[5] Goldsmith (*Comparative National Balance Sheets,* 326) estimates the total value of all US assets in 1900 at $150 billion.

[6] Davis and Cull, *International Capital Markets*, 71; Anon, "Sociétés," 394-399.

[7] The thousands of working men who owned shares in Lancashire textile mills were a rare exception and not paralleled in Fall River, Massachusetts, see Thomas, *Provincial Stock Exchanges,* 147; Yonekawa, "Comparative Business History," 79, 92.

[8] Ingall and Withers, *Stock Exchange,* 58; Lowenfeld, *Investment*, 85.

[9] Leroy-Beaulieu, *L'Art,* 56.

[10] Greenwood, *American and Foreign Stock Exchange Practice,* 73.

[11] Even in the Illinois Central, known for encouraging small shareholdings, particularly by its employees, the average American holding was higher than the average British holding, see Huebner, "Distribution," 65.

[12] Veenendaal. *Slow Train,* 155-63; Burton and Corner, *Investment Trusts;* McKendrick and Newlands, *'F & C.'*

[13] Fear and Kobrak, "Diverging Paths," 16.

[14]Jones, *Evolution,* 30;

[15] Berle and Means, *Modern Corporation,* 17.

[16] Board of Trade, *Return.*

[17] Neymarck, "Statistique," 134.

[18] Hawkins, "Development," 145.

[19] Huebner, "Distribution," 66-68, 77.

[20] All nominal values. *Ibid.*, 66-68; Neymarck, *Le Morcellement,* 31. The British figure is for 1902, the French for 1895.

[21] Huebner, "Distribution," 70-71; Neymarck, "Statistique."

[22] Dunlavy, "Corporate Governance."

[23] The few British exceptions are in small local lines.

[24] Author's calculations from the directors' qualifying stockholdings disclosed in annual reports, 1894-1906, with the largest disclosed at any date taken as the actual 1900 holding.

[25] This was also the voting structure in the (optional) model clauses of the British Companies Acts, though most industrial companies struck them out and substituted a one-vote-per-share rule.

[26] Caron, *Histoire,* 275-277. By 1911/1912, the largest 10 shareholders held less than 3 per cent of the shares.

[27] Lyon, *Capitalization,* 129-135.

[28] In France this had already led to the creation of six geographical monopolies in the 1880s; in Britain the process ended with four regional monopolies by 1921.

[29] The main difference between the modern takeover bid and the turn-of-the-century US version was that there was no formal bid to all stockholders simultaneously and equally: the technique was to approach known large holders (directly, or via the board) for their shares and/or to buy in the market. It is sometimes said that a market for corporate control did not develop until after World War II, but, US railroads apart, there were also occasional cases in other countries and industries.

[30] Van Oss, *American Railroads,* 236.

[31] Klein, *Union Pacific,* 87.

[32] Dozier, *History,* 145-146.

[33] *Manual of Statistics 1901,* 156. Ripley, *Railroads,* 523; Klein, *Union Pacific,* 88-89, 169.

[34] Van Oss, *American Railroads,* 11. See also Morris, *Railroad Administration,* 123-124, where he substitutes 'aristocratic' for 'autocratic.'

[35] Pyle, *Life,* 142-153; Meyer, *History,* 12; Hidy *et al*., *Great Northern Railway,* 135. Later before the Pujo Committeee (*Evidence*, 1993), Hill's disclosed holding was less than 2 per cent, though he still expected his son to succeed him.

[36] Cleveland and Powell, *Railroad Finance,* 272-321, is a clear discussion of corporate control and consolidation in pre-war US railroads.

[37] Leonard, "Decline," 2.

[38] Mott, *Between the Ocean,* 201. In his evidence to the Pujo Committee, Morgan explicitly likened the effect of the voting trust to that of European voting structures.

[39] Lowenfeld, *Investment,* 35-36; Barker and Robbins, *London Transport,* 60.

[40] Baruch, *My Own Story,* 166.

[41] For example Crédit Lyonnais, the Commercial Bank of Scotland, and the Union of London & Smith's Bank.

[42] Clapham, *Bank,* 273, 279, 283.

[43] Stockholders' registers for 1892-1902; supplementary registers for 1899-1902 (Bank of England archives, Acc 27/553-556); Anon, *List*.

[44] Neymarck, "Statistique," 138; *Bulletin de Statistique* (1902), 374.

[45] Neymarck, "Statistique," 138.

[46] Jefferys, *Business Organisation,* 387; Cassis, *Banquiers*, 87-91.

[47] Holmes and Green, *Midland,* 101, 118; Midland Bank archives, Acc 0591 031-044; letter from Edwin Green, HSBC Group Archivist, 21 Feb. 2006. Felix Schuster, of the National Provincial, also resisted large stockholdings.

[48] For these and other US banks see Pujo, *Evidence*, 1888-94, 2897.

[49] Cleveland and Huertas, *Citibank*, 90-104; Vanderlip, *From Farm Boy*, 263-266, 302-303.

[50] Lamoreaux, *Insider Lending*, 135-150.

[51] Augustine, *Patricians,* 30; Fohlin, *Finance Capitalism,* 84.

[52] Passow, *Die wirtscaftliche Bedeutung*, 199.

[53] The 1905 Armstrong investigation showed extensive plutocratic influence over this and other closely controlled insurance companies and insider lending abuses.

[54] North, "Life Insurance," 216, n.32.

[55] Boyce, *Information,* 226, 232.

[56] Carosso, *The Morgans*, 483.

[57] Jordan and Gore-Brown, *Handy Book,* 229-234, 272-274.

[58] London's settlement system was also said to be more discouraging of corners. The system of special settlement of new and as yet unlisted shares (a function provided by the curb in New York) also took place under stock exchange supervision in London.

[59] Thomas, *Western Capitalism,* 74.

[60] Bernheim and Schneider, *Security Markets,* 256; Goyens, *Opérations,* 9.

[61] Huebner, *Stock Market,* 135, 138.

[62] Dorian*, Du Ponts*, 169; Chandler and Salsbury, *Pierre S. Du Pont*, 53, 211-213, 252-254, 294-295.

[63] Guildhall Library, London, MS 18000. I searched the 1890-1910 files randomly, and targeting known 'family' firms, but found only one exception (of 39.5 per cent vendor retention) in file 30B/86 (Bechuanaland Exploration, 1892); no reason is given in that file.

[64] Listing file, 29B/147.

[65] Listing file 73B/69, for the example of Waygood, the lift manufacturer; see also *Investors Review* (1 Dec. 1900, 682) for the level of Chamberlain family ownership of the munitions company, Kynoch.

[66] Lazonick, "Controlling the Market," 449-451; Farrell, *Elite Families,* 155; Passer, *Electrical Manufacturers,* 323. Charles Coffin, the president of GE, alone held 25 per cent of the stock, by virtue of his ownership of the Thomson-Houston half of the 1892 GE merger; other directors were also substantial stockholders. GE had only 2,900 shareholders in 1900, and did not match widely-held 1900 British industrial companies until the 1920s.

[67] Listing file 125B/821.

[68] In Payne's list of 17 large breweries ("Emergence," 542), only five issued ordinaries to the public. The British figures in Table 1 include only firms whose *ordinary* shares were listed, not the firms with other listed securities.

[69] Gourvish and Wilson, *British Brewing Industry,* 263.

[70] The exceptions in 1905 among the 37 non-brewery, quoted companies in the extended Payne list of the largest British industrials were Imperial Tobacco, Lever Brothers (soap), British Westinghouse (George Westinghouse retained voting control in the US, while raising fixed interest capital in London), Waring & Gillow (furniture) and Maple & Co. (another furniture company, which, unusually, issued 200 management shares with controlling votes).

[71] Dennison and MacDonagh, *Guinness,* 16-23, 30, 201. It was also permitted to board members to subscribe cash in the two-thirds public subscription.

[72] Franks, Mayer and Rossi, “Spending.” An example of board ownership rising above the threshold by this method was Coats’ 1896 payment in shares for acquiring Clarks, some of whose directors joined the board. Acquisitions of listed companies by unlisted ones could also permit partial quotations without their board giving up majority ownership, as in the 1902 case of Barclays’ acquisition of York Union (trading rights were not extended to the Barclays families’ shares).

[73] Warshow, “Distribution,” 24. Other figures above 5,000 for 1900 are AT&T (7,535, a company in which large holdings were relatively low), Western Union (9,134, though despite this large number, the Goulds had board control), American Car & Foundry (7,747); and several railroad companies. National Biscuit had 7,000 stockholders in 1906, Pullman 7,744 in 1901. Federal Steel, US Leather and other companies probably would also qualify, though precise data is lacking. More modestly-sized UK companies – like the Illustrated London News, with 9,000 in 1900 – could have shareholder numbers equivalent to these (*Economist*, 17 Feb. 1900, 237).

[74] Eichner, *Emergence,* 266.

[75] George Pullman had owned only 16 per cent of the shares when he died in 1894 and they were then dispersed among his heirs; see Buder, *Pullman,* 210. However, the company was later spoken of as under Vanderbilt control: they acquired large share interests and board positions on selling Wagner Palace Car to Pullman in 1899.

[76] Letter to shareholders, 17 July 1901, bound with company reports in Guildhall Library.

[77] Dreier, *Power,* 51-52; Warshow, “Distribution,” 24.

[78] Listing file, 161B/150; Bureau, *Tobacco,* 119, 202.

[79] Moody, *Manual*. There were some large individual holdings - the six Carnegie partners alone had 17.7 per cent of the common, 19.9 per cent of the preferred and 100 per cent of the bonds - but only one of them was on the board.

[80] Schisgall, *Eyes,* 51-57.

[81] Hannah, "Hollywood History."

[82] Davies, "International Operations," 62-63; *idem*, *Peacefully Working,* 95.

[83] 15 December 1900, as quoted in Davies, *Peacefully Working,* 108.

[84] Hidy, *Pioneering,* 310, 313, 322, 628, 756 n. 14, 757 n. 23.

[85] McCormick, *Century,* 118; Bureau, *International Harvester,* 5-9, 19-20, 82, 86-87, 158, 162; listing file 125B/821; International Harvester, *Annual Report,* 1908, 20; *Commercial and Financial Chronicle,* 13 June 1908, 1470.

[86] Marcosson, *Anaconda*, 90-93.

[87] Hoyt, *Guggenheims,* 193-194, 207-209.

[88] Cleland, *History,* 12, 151, 155, 275.

[89] Brown, *Baldwin Locomotive Works,* 97, 123, 216.

[90] Goldsmith, *Study,* 501. In this quiet period for mergers, probably most of the residual here is retained by vendors and promoters rather than issued for acquired shares in mergers.

[91] Lévy-Leboyer, "Large Family Firm," 215, 231 n. 5; *idem*, "Hierarchical Structures," 453.

[92] Freedeman, *Triumph,* 95; Bouvier *et al*., *Mouvement,* 273..

[93] Franck, "La Politique."

[94] Leroy-Beaulieu, *L'Art,* 295

[95] See Perrot's analysis of 153 bourgeois families' investment income (*Le Mode*, 245-246).

[96] The classic tale is Landes, "French Entrepreneurship." Kinghorn and Nye ("Scale") and Smith (*Emergence)* suggest a re-assessment.

[97] Augustine, *Patricians,* 32.

[98] Siemens, *History,* 192-197, 329-330.

[99] Manchester, *Arms,* 207.

[100]Franks and Wagner, "Origins," 38. See also Fohlin, *Finance Capitalism*, 122-124.

[101] James, *Family Capitalism*, 119-135.

[102] Information from Prof Horst Wessel, Mannesmann Archive.

[103] Abelshauser *et al.*, *German Industry,* 34, 118-19.

[104] Phillips, *Railway Autocracy.*

[105] Grinling, "Position," 60; see also Van Oss, "The 'Limited Company' Craze." Compare Jensen, "Eclipse."

[106] Neymarck, *Finances Contemporaines*, and regular articles in *Le Rentier.*

[107] Berle and Means, *Modern Corporation,* 309; Keynes, *End,* 42-45; see also Liefmann, *Unternehmungsformen,* 52, 87-88.

[108] Chandler (*Scale)* asserts the relative national incidence of 'personal capitalism' on the basis of – apparently quite arbitrary - sprinkling of adjectives like 'personal,' 'family,' and 'professional.' The nearest Chandler came to (seriously comparative) quantification of board membership/shareholding was in Chandler and Daems, eds., *Managerial Hierarchies.* It is revealing that the British contributor to that volume actually *measured* the proportion of boardrooms with at least one personal/family director among the top

200 British companies at 55 per cent, while others simply *asserted* that this was rare in Germany and the US. A check of their published lists against the *Handbuch der deutschen Aktiengesellschaften* and *Moody's Manual* suggests that their assertions would not survive the same quantitative test. An excellent, critical discussion of some of the issues is Crouzet, "Business Dynasties." Unfortunately, Chandler's deserved prestige has led many economists and legal scholars to assume he is right, on this as on many earlier issues, and that his findings apply across stock markets rather than to the (relatively small) quoted industrial sector to which his erroneous claims were confined. De Long ("Did J. P. Morgan's Men") and Cheffins ("Mergers") are egregious examples of attempts to explain why what did not happen on London and New York must have happened: exercises which, necessarily, deploy impressive ingenuity.

[109] Clarke and Trebilcock, *Understanding Decline.*

[110] Hannah, "Marshall's Trees;" Lamoreaux *et al*., "Against Whig History."

[111] Wellhoff, *Etude*, 95-96.

[112] März, *Austrian Banking,* 87.

[113] Miwa and Ramseyer, "Corporate Governance," 180; Miwa and Ramseyer, "Banks," 143.

[114] Hallberg, *Suez Canal,* 140-42, 403 n. 1; Lesage, *L'Achat,* 201-208; Bonin, *Suez,* 55-56, 64, 176.

[115] Hongkong & Shanghai Banking Corporation, *Report for the half year to 31 December 1899*; Jones, *British Multinational Banking,* 41.

[116] Listing file 18000/30B/87.

[117] Davis and Huttenback, *Mammon,* 196, 202-203.

[118] Henriques, *Marcus Samuel*; Jones, *Banking,* 26-31.

[119] Holderness, Kroszner and Sheehan, "Were the Good Old Days."

[120] Desai, Dharmapala and Fung, "Taxation;" Hawkins, "Development,' 145.

[121] Smith and Sylla, "Transformation," 16.

[122] Unless state-owned telecom enterprises are considered to be owned by citizens, in which case AT&T was unusually narrowly-held.

[123] Rajan and Zingales, "The Great Reversals;" Gueslin, "Banks," 68-73.

[124] La Porta *et al.*, "Law and Finance."

[125] Albert, *Capitalisme*.

[126] Colli, *History*.

[127] For an acute and balanced analysis, see Iwai, "Nature."