Corporate Ownership and Control in Victorian Britain[1]

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Abstract
Using ownership and control data for 890 firm-years, this paper examines the concentration of capital and voting rights in British companies in the second half of the nineteenth century. We find that both capital and voting rights were diffuse by modern-day standards. However, this does not necessarily mean that there was a modern-style separation of ownership from control in Victorian Britain. One major implication of our findings is that diffuse ownership was present in the UK much earlier than previously thought, and given that it occurred in an era with weak shareholder protection law, it somewhat undermines the influential law and finance hypothesis. We also find that diffuse ownership is correlated with large boards, a London head office, non-linear voting rights, and shares traded on multiple markets.

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I

One of the biggest questions in the history of the modern public company is: When did ownership separate from control? Influenced by the seminal work of Berle and Means, the standard view amongst economists is that public companies in the U.S. were early movers, with ownership having separated from control at some stage in the early twentieth century, whilst other Anglo-Saxon economies experienced a similar transition in the latter part of the twentieth century.[2] A related question in the history of the modern public company is: What organisational structures and corporate governance systems were used to finance industrialisation?[3] In particular, to what extent did the legal system and investor protection laws facilitate the raising of capital to finance industrialisation? In this paper, we address these big questions in the history of the modern company by analysing corporate ownership and control in Britain in the five decades after the liberalisation of incorporation law in 1856. At least two things make Britain at this time an ideal place to address these big questions: (a) it was the world's largest capital market and (b) there was a rapid expansion of the equity market and democratisation of share ownership.[4]

Using 890 detailed corporate ownership records, we address three particular questions in this paper. The first is when did diffuse ownership emerge in Britain? Until recently, the consensus in the extant literature was that dispersed ownership appeared in Britain at some

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[2] Berle and Means, *Modern corporation*. Although there have been recent challenges to this view, the Berle and Means characterisation of corporate ownership in the U.S. remains the orthodox view amongst economists and historians. See Cheffins and Bank, 'Myth'; Hannah, 'Divorce of ownership'; Holderness, 'Myth of diffuse ownership'; Lipartito and Morii, 'Rethinking the separation'.

[3] See Hilt, 'When did ownership separate from control' and Musacchio, *Experiments*.

[4] Grossman, 'New indices'; Rutterford et al., 'Who comprised the nation'.

stage in the second half of the twentieth century.[5] Foreman-Peck and Hannah, however, have shown that ownership was divorced from control for the largest British companies in 1911.[6] Our study goes further by showing that dispersed ownership is commonplace at least half a century earlier than 1911 and that ownership is dispersed in medium-sized and small companies, and not just in the largest. However, we also find that companies established in the 1890s had more concentrated ownership than companies established in earlier periods. This finding is consistent with Cheffins et al. and Franks et al. who find that companies established around 1900 tended to have concentrated ownership.[7]

Although we find diffuse ownership and an absence of blockholders in our sample, this does not in and of itself mean that we have a modern-day separation of ownership from control in Victorian Britain. The companies in our sample differ from modern companies in that they had significantly lower numbers of shareholders, there were no arms-length institutional investors, and many of the earlier companies in our sample were not conversions of previously established businesses; rather they were new ventures which raised capital from the stock market at their inception.[8] Thus, it is entirely possible that a coalition of the largest

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[5] Florence, *Ownership*; Nyman and Silberston, 'Ownership'; Scott, 'Corporate control'; Leech and Leahy, 'Ownership structure'; Cheffins, 'Does law matter', *Corporate ownership*; Coffee, 'Rise'; Roe, 'Political preconditions'; Franks et al., 'Ownership'. Cheffins, Corporate ownership, pp.157-8 and 231 notes that dispersed ownership emerged in the railway sector in the mid-nineteenth century and in banks by the early twentieth century.

[6] Foreman-Peck and Hannah, 'Extreme divorce'. See also Hannah, 'Divorce of ownership' and Braggion and Moore, 'Dividend policies'.

[7] Cheffins et al., 'Ownership dispersion'; Franks et al., 'Ownership'.

[8] See Cheffins, Corporate ownership, pp.181-2, who outlines the chronology of stock market flotation in the UK, with business concerns launching on the stock market from scratch commonplace before the 1880s, but much less so afterwards, when conversions of private companies and partnerships was much more commonplace.

shareholders effectively maintained control of the company. However, we have no evidence which either supports or refutes this possibility.

Given that ownership was relatively diffuse, we then address the following question: was legal protection of investors a precondition for the emergence of the diffusely-owned corporation in Britain? The influential law and finance school argue that strong legal protection of minority shareholders is a precondition of dispersed ownership.[9] As Britain had a laissez-faire company law regime from the perspective of most minority shareholders in non-statutory companies in the nineteenth century, our finding that corporate ownership is dispersed is evidence against the law and finance hypothesis.[10] Our findings in this regard concur with recent studies on the history of corporate ownership in other economies.[11]

The third question which we address in the paper is: What were the correlates or potential determinants of ownership structure in Victorian Britain? To examine this issue, we use firm-specific data to run a horse race between various hypotheses which have been suggested in the literature. In the corporate finance literature, firm size, and operating environment have been identified as potential determinants of ownership structure.[12] Hilt and Musacchio suggest that voting rights which empower small shareholders and limit the power of large shareholders are associated with greater ownership diffusion.[13] In terms of Britain, it

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[9] La Porta et al. 'Law and finance', 'Corporate ownership'. See Musacchio, 'Law and finance' for an historical counterexample to the law and finance hypothesis.

[10] See Campbell and Turner, 'Substitutes'.

[11] Hilt, 'When did ownership separate from control'; Musacchio, *Experiments*, p. 126; Musacchio, 'Laws versus contracts'; Franks et al., 'Equity markets'.

[12] Demsetz and Lehn, 'Structure of corporate ownership'. See also Richter and Weiss, 'Determinants'.

[13] Hilt, 'When did ownership separate from control'; Musacchio, *Experiments*, p. 110-5.

has been suggested that an official listing contributed to the diffusion of ownership,[14] as have trust and proximity of investors to company headquarters.[15] In addition to these hypotheses, we also test whether having a London headquarters, the number of markets on which a company was listed, the denomination of a company's stock, and board size are correlates of ownership structure. We find no evidence of a relationship between ownership structure and size or the nature of a company's assets and operating environment. We also find that an official listing and our proxies for trust are not correlated with ownership concentration. However, our results suggest that voting rights, board structure, having a London headquarters, and the number of stock markets a company is traded on are related to ownership structure.

This study is significant for at least a further two reasons. First, several business and economic historians have suggested that Britain's twentieth-century economic decline and managerial failure has some of its roots in the concentrated structure of corporate ownership which emerged out of the nineteenth century.[16] Second, if corporate ownership is path dependant, as some scholars believe, it is important that we know the structure of ownership in the UK at the origin of the modern public company.[17]

The next section of this paper examines the preconditions for the rise of diffuse ownership and the separation of ownership from control. Section three describes the gradual liberalisation of incorporation law in the UK and examines the ownership structure of several pre-1856 companies for which ownership data exists. Section four describes our ownership and control data sources. Section five presents our main findings on the structure of

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[14] See Hannah, 'Divorce of ownership', p. 414. See also Cheffins et al., 'Ownership dispersion' for an empirical test which rejects Hannah's hypothesis.

[15] Franks et al., 'Ownership'. See Cheffins, *Corporate ownership*, pp.41-43 for a critique.

[16] Chandler, *Scale and scope*; Elbaum and Lazonick, 'Decline'.

[17] Bebchuk and Roe, 'Theory of path dependence'.

ownership in Victorian Britain. Section six examines how ownership structure varies across industry, our sample period, and voting rights. Section seven analyses the correlates of ownership structure.

II

Prior to the liberalisation of incorporation law in the nineteenth century, corporate status was only available as a privilege extended by Parliament or the Crown e.g., canal companies and railways. Consequently, most other businesses constituted as common-law partnerships. Such partnerships have basic economic problems which can hinder the growth of the business.[18] Although the corporate form solves many of these problems, if companies have diffuse ownership and ownership is separated from control, agency problems can arise and unless these can be sufficiently reduced, investors will be reluctant to invest in firms with diffuse ownership.[19] This raises the following question: what are the preconditions for the rise of diffuse ownership and the separation of ownership from control in the first place?

According to the influential law and finance school, strong legal protection for minority shareholders enables ownership to separate from control.[20] The basic argument is that with strong investor protection laws, large shareholders have less fear of expropriation if they ever lose control, and are therefore more willing to sell some of their control rights to raise funds or diversify their wealth, with the result that corporate ownership becomes diffuse.[21]

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[18] For further details, see Lamoreaux, 'Partnerships'.

[19] Jensen and Meckling, 'Theory of the firm'; La Porta et al., 'Corporate ownership'.

[20] La Porta et al., 'Law and finance', 'Corporate ownership'

[21] La Porta et al., 'Corporate ownership', p. 473.

Coffee, Cheffins, and Franks et al. point out that the pervasive separation of ownership from control in the UK, which they reckon occurred at some stage between the 1930s and 1970s, happened before shareholder protection law was strengthened.[22] The law and finance school has responded to this by arguing that shareholders were well protected in Britain for at least two reasons before the dispersion of ownership occurred.[23] First, the UK's commercial courts had a long history of precedents dealing with fraudulent behaviour and had a professional and trustworthy judiciary. Second, the Directors Liability Act of 1890 and the Companies Act of 1900 required significant disclosure in prospectuses and held directors liable for inaccuracies.

Although UK commercial courts may have had a long history of professional and incorrupt judges setting precedents, common-law judges in Victorian Britain were reluctant to interfere in what were perceived to be the internal affairs of companies in order to protect the interests of shareholders.[24] Indeed, judges were ideologically opposed to the notion of protecting shareholders because laissez-faire theory and the practice of partnerships taught that capitalists could look after themselves.[25] Such attitudes were clearly demonstrated in the precedent set in the famous case of *Foss vs. Harbottle*, whereby minority shareholders brought a case against their company's directors for alleged wrongdoing and misapplication of company resources.[26] The judge in this case ruled that when a company is allegedly wronged by its directors, only the company has a right to sue. In addition, the judge ruled that when a wrong could be ratified by a majority of shareholders, the court would not

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[22] Cheffins, 'History', 'Does law matter?', *Corporate Ownership*; Coffee, 'Rise of dispersed ownership'; Franks et al., 'Ownership'.

[23] La Porta et al., "Economic consequences," p.319.

[24] See Emden, *Shareholders' legal guide*, pp.77-80.

[25] Jefferys, *Business organisation*, p.394.

[26] *Foss vs Harbottle* (1843) 2 Hare 461 (Chancery Division) Wigram V-C.

interfere, implying that individual shareholders could not proceed with an action against the company directors. In other words, this ruling precluded individual shareholders from launching a suit on the company's behalf. This important precedent strengthened the rights of directors and company insiders at the expense of minority shareholders.

As our sample companies were registered under the 1862 Companies Act and as the vast majority of our observations are from before the above-mentioned strengthening of shareholder protection legislation at the turn of the twentieth century, we are able to look at the dispersion of ownership in an environment with very weak (by modern-day standards) shareholder protection. It is a well-established fact that shareholder protection under the 1862 Act was minimal.[27] Until 1900, the anti-director rights index, which measures the extent to which company law protects minority shareholders, for companies registered under the 1862 Companies Act, was one out of a maximum of six.[28] In addition, the *ex post* control of self-dealing index, which measures the strength of regulation relating to company transactions which involve a director or other insider, was very low by modern-day standards.[29] Furthermore, insider trading was legal and the 1862 Act did not impose a compulsory audit upon companies.

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[27] Campbell and Turner, 'Substitutes'.

[28] Cheffins, *Corporate ownership*, p. 36. See La Porta et al. 'Law and finance', pp.1126-8 for further information on the anti-director rights index. The 1862 Companies Act provided a list of default provisions for company constitutions in Table A of the Act, which correspond to three of the rights in the antidirector rights index (Companies Act 1862, Table A, s. 27, 32, 48). However, companies had complete discretion when it came to including or excluding these provisions from their constitution, with the majority choosing to ignore some or all (Campbell and Turner, 'Substitutes', p. 574).

[29] Cheffins, *Corporate ownership*, p. 38; See Djankov et al., 'Law and economics' on the construction of the self-dealing index.

In summary, Victorian Britain is an ideal laboratory to test the law and finance hypothesis regarding corporate ownership, since there was very little shareholder protection enshrined in legislation or offered by the commercial courts. Given this legal environment, we should not expect to find dispersed ownership if the law and finance hypothesis holds.

III

Although the corporate form existed in Britain prior to the nineteenth century, the right to incorporate was controlled by Parliament and the Crown, with the common-law courts largely hostile to attempts by entrepreneurs to form unincorporated companies.[30] The liberalisation of British incorporation law commenced in the mid-1820s, with the repeal of the Bubble Act[31] and the passage of the Banking Copartnership Act.[32] Parliament also dispensed corporate charters more liberally from the mid-1820s onwards in order to assist the growth of capital-intensive transportation and infrastructure projects which provided some sort of public good. Parliament also ended the monopoly in marine insurance in 1824, permitting other companies to incorporate.[33] As a result of this liberalisation, banks, insurance companies, and railways dominated the London equity market in 1850, accounting for 65.1 per cent of all issues and 80.1 per cent of market capitalisation.[34]

Railways typically had diffuse ownership due to their large capital requirements.[35] In addition, many banks and insurance companies would have had diffuse ownership because

[30] Freeman et al., *Shareholder democracies*; Harris, *Industrializing*. See Cheffins, Corporate Ownership, p.150 for an alternative view.

[31] 6 Geo. IV, c.91.

[32] 7 Geo. IV, c.46.

[33] Harris, *Industrializing*, p.211.

[34] Acheson et al., 'Rule Britannia', p.1118.

[35] Cheffins, *Corporate ownership*, pp. 157-9.

there were self-imposed ceilings, usually set at low levels, on the proportion of shares which one individual could own.[36] In order to assess the ownership structure of companies established prior to the liberalisation of incorporation law, we searched the *National Register of Archives* to see if any corporate ownership records from this era had survived. However, very few ownership records have been preserved. Table 1 contains the ownership statistics of eight companies where we were able to find the necessary ownership records. The ownership statistics reported in Table 1 suggest that the ownership of these five banks, two insurance companies, and one major railway was diffuse in that the proportion capital owned by the largest shareholder and top five shareholders was relatively low.

<INSERT TABLE 1 HERE>

Incorporation law was liberalised further with the passage of the Companies Act of 1844.[37] This legislation granted firms the freedom to incorporate as unlimited liability companies. Subsequently, the 1855 and 1856 Limited Liability Acts were passed which enabled companies, apart from banks and insurance companies, to incorporate with limited liability.[38] Limited liability was eventually extended to banking in 1858,[39] and insurance companies received this privilege due to their inclusion in the 1862 Companies Act,[40] which was effectively a consolidation of existing pieces of legislation. The companies incorporated under this legislation are the focus of this paper.

IV

[36] Campbell and Turner, 'Substitutes', p.576.

[37] 7 & 8 Vict., c.110.

[38] The 1855 Act (18 & 19 Vict., c.113) was repealed, but re-enacted in 1856 (19 & 20 Vict., c.47).

[39] 21 & 22 Vict. c.91.

[40] 25 & 26 Vict. c.89.

Our main sources of ownership data are located in the Companies Registration Office files held at the National Archives at Kew (BT31 series) and the National Archives of Scotland (BT2 series). Companies registered under the 1856 and 1862 Companies Acts were required annually to return a list of their shareholders to the Registrar of Companies. Up until 1970, whenever a company was dissolved either because it was reconstructed, merged or liquidated, its ownership records were placed within the Companies Registration Office files. As the vast majority of nineteenth-century companies registered under the 1856 and 1862 Companies Acts were subsequently dissolved, their ownership records, if they survived, are contained within these two BT series. Notably, as ownership data was not collected by the Registrar of Companies on statutory companies set up prior to 1862 (e.g., railways) and banks and insurance companies (unless they registered under the 1862 Companies Act), our dataset does not contain the largest publicly-traded companies in the Victorian era.

Our search of the catalogues of the two BT series for public companies which issued common stock quoted either in the *Course of the Exchange* between 1825 and 1870 or in the *Investor's Monthly Manual* in 1870, 1885, and 1899, returned records for 712 companies. On inspection of these records, 101 contained no ownership returns. Unfortunately, the ownership returns of English companies were extensively weeded by archivists in the past in order to reduce the bulk of the files, with the result that only some annual returns have been preserved.[41]

[41] In principle, every first, last and intermediate fifth annual ownership register has been preserved, but in a significant minority of cases, we found this not to be the case. The Scottish records have not been weeded to the same extent.

We collected ownership returns for 1865, 1870, 1883, 1890, and 1900 or one year either side of these sample years if the return existed.[42] If they were available, 1880 or 1881 were collected in those cases where a company had no returns for 1882-1884. In addition, we collected all returns from the 1850s. If a company had ownership returns which fell outside the selected sample years, we collected a return for each decade between 1860 and 1900, where available.

The ownership returns were usually completed by hand on Form E, a standardised return form, which gave a summary of capital and shares i.e., names and holdings of shareholders for both ordinary and preference shares. We photographed 999 returns of Form E, which were then inputted manually and verified by data-entry services. In total, after removing firm-years which have missing and unintelligible data, we have ownership returns for 890 firm-years, representing 488 unique firms.

As we are interested in control as well as cash-flow rights, we collected data on each company's voting scales for each year for which they are in our sample from their articles of association, *Burdett's Official Intelligence* (*BOI*) and *Stock Exchange Official Intelligence* (*SEOI*). These were then used to calculate each shareholder's voting rights. In total, we found the voting structures of 729 of the 890 firm-years of ownership returns.

As the ownership returns do not report the membership of the board of directors, we obtained the names of directors for the relevant years from articles of association, *BOI*, *SEOI*, and *Stock Exchange Year-book* (*SEY*). In total, we located director names for 575 out of the 890 firm-years in our sample. Each set of ownership returns was then manually scrutinized to ascertain the share ownership of each director.

[42] 1883 was chosen as this was the year when the second edition of Burdett's Official Intelligence, which was the first stock exchange yearbook in the UK with near-comprehensive director, company data, and market information.

We also collected data on firm age, total paid-up capital, location of head office, share qualifications for directors, and nominal and par values of shares from articles of association, *BOI*, and *SEOI*. The stock markets where shares were traded were obtained from *BOI* and *SEOI* for 1883 onwards, with the *Investor's Monthly Manual* (*IMM*) being used for the 1864-82 period.

As the source of our ownership data is the files of companies which were dissolved before the 1970s, we may be introducing a bias into our sample in that the ownership structure of such companies may be different from companies which were not dissolved before the 1970s, particularly if dissolution occurred for performance reasons. Admittedly, very few companies established in the nineteenth century were still operating as independent entities by the 1970s. Nevertheless, we checked all our sample companies against the *Register of Defunct Companies*, which lists any company which delisted from the stock exchange from 1875 onwards as well as the reason for delisting.[43] The vast majority of sample companies were not dissolved for explicit performance reasons – 55.5 per cent reconstructed their capital or merged with another firm. Only 27.7 per cent of our sample companies delisted for explicit performance reasons i.e., they were wound-up voluntarily or by court order.

<INSERT TABLE 2 HERE>

From Table 2 we observe the following about our sample. First, there is a good spread of companies across time, with slightly more observations in the 1880s and 1890s, which is unsurprising given the expansion of the stock market in these decades.[44] Second, average company size changes little over the sample period, albeit that it is slightly lower in

[43] As a small number of companies were not covered by the *Register of Defunct Companies*, we used the London and Edinburgh Gazettes for these companies.

[44] Grossman, 'New indices'.

the 1860s and slightly higher in the 1900s. Third, the average number of shareholders rises steadily over the sample period, which, taken with the fact that the average par value of firms changes little, suggests that ownership may have become more diffused over time. Fourth, the relative size of the companies in our sample compared to all non-railway companies traded on the stock market indicates that very few companies in our sample are in the top two deciles of companies by par value in any particular year.

From Table 3, we see that there is a good spread of companies from different industries. The commercial and industrial sector is the largest in the sample, which is unsurprising as this was a growth sector in the stock market between 1860 and 1900.[45]

V

Table 3 contains our first major finding. We see from the bottom row of Table 3 that ownership of Victorian companies was not concentrated either in terms of capital or voting, with the mean percentage of capital and voting rights owned by the largest five investors being 26.6 and 22.2 per cent.[46] The Herfindahl Index of ownership and voting, which measures how dispersed ownership is across all shareholders, is low compared to similar measures for the twentieth century.[47] In addition, insiders, defined as directors and owners of more than 10 per cent of capital, on average owned only 18.5 per cent of capital and

[45] Acheson et al., 'Rule Britannia', p.1118-9; Grossman, 'New indices', p.130.

[46] Notably, there are no substantial differences in ownership concentration across the various reasons as to why companies became defunct, which suggests that our results are not being driven by a performance bias.

[47] According to Franks et al., 'Ownership', pp.4025-6, the mean of the Herfindahl index for their sample of UK firms in 1920, 1950, and 1990 was 10.6, 6.3, and 6.3 per cent respectively.

controlled 16.1 per cent of votes.[48] Thus, ownership was much more dispersed in Victorian Britain than one would expect from the extant literature. Furthermore, ownership is much more diffuse than one would expect given the low level of legal protection for investors.

<INSERT TABLE 3 HERE>

Table 4 compares ownership concentration in the UK for the Victorian era with that for later periods. Comparability across various ownership studies is not straightforward as some report cash flow rights but not voting rights and vice versa. More fundamentally, however, studies which look at the twentieth century focus on the largest companies. To the extent that comparisons can be made, we see that the mean capital held by the largest investor was slightly higher in the twentieth century, which indicates that corporate ownership became a bit more concentrated during the twentieth century. In terms of capital, directors in the first half of the twentieth century tended to own a smaller proportion of a company's capital than they did in the nineteenth century. However, the companies in the first half of the twentieth century were larger and their voting was more concentrated than their capital because they were issued non-voting preference shares.[49] Notably, the figures for director ownership for 1990 and 1995, which contain industrial companies of various sizes, are comparable to the Victorian era. Although ownership in our sample is more diffuse than the top 350 companies in 2013 in terms of the capital held by the largest and twenty largest investors, directors owned greater amounts of capital in the Victorian era than they did in 2013.

<INSERT TABLE 4 HERE>

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[48] 10 per cent is chosen to define large shareholders following the usual convention in the extant literature (Cheffins et al., 'Ownership dispersion'; Faccio and Lang, 'The ultimate ownership'; La Porta et al, 'Corporate ownership').

[49] For example, Hannah and Foreman-Peck, 'Extreme divorce' find that for the largest 337 British companies in 1911, the mean percentage of voting rights controlled by directors was 10.1, which is just slightly below the mean for our sample.

Table 5 gives a broader perspective to the concentration of ownership in Victorian Britain by comparing it to the capital concentration of constituents of leading stock-market indices in 2013. As can be seen from Table 5, on any measure of capital concentration, ownership in Victorian Britain was as diffuse as that in modern large U.S. corporations which are in the Dow Jones or S&P 500 indices. Notably, ownership in Victorian Britain was slightly more diffuse than amongst FTSE 100 constituents in 2013. Given that the companies in our ownership sample were nearly all outside the largest 100 companies in Victorian Britain, a more meaningful comparison would be with those indices for the U.S. and UK which contain medium-sized companies i.e., the S&P 400 of Mid Cap stocks, the S&P 600 of Small Cap stocks, and the FTSE 250. Compared to companies in these indices, companies in Victorian Britain were much less likely to have a single owner holding more than 10 per cent of shares. The average proportion of capital held by the largest investor and largest five investors in Victorian Britain is smaller than in modern-day medium-sized U.S. firms and is substantially smaller than in modern-day UK firms.

<INSERT TABLE 5 HERE>

Some caveats need to be placed on comparisons of ownership between the Victorian and the modern periods, particularly with respect to historical context. First, the share registers of large companies in the twenty-first century have hundreds of thousands of shareholders, whereas the average share register of our mid-cap Victorian companies contained 410 shareholders (Table 2). Second, as can be seen from Table 4, on average, 72.54 per cent of capital in the top 350 companies in 2013 is owned by the 20 largest shareholders, but most of these are large asset managers or institutional shareholders who are not involved in corporate governance, with the result that these companies can be characterised by a separation of ownership from control.[50] By way of contrast, in the case of

[50] Cheffins, *Corporate ownership*, p. 22

Victorian Britain, the twenty largest shareholders would have been individuals, and Table 4 reveals that, on average, 47.27 per cent of capital in our sample of Victorian companies is owned by the 20 largest shareholders. Consequently, one has to ask whether in this historical context it is appropriate to characterise such companies as having a modern-style separation of ownership and control. Florence in his 1961 study of corporate ownership argued that a 'small coherent "resolute" group' of individuals could effectively maintain control of the company despite ownership being diffuse.[51] However, there is no evidence available on our sample companies as to the existence or otherwise of such small resolute groups.

It could be argued that directorial share ownership requirements, which were often included in the articles of association of Victorian companies,[52] could have been used to keep effective control in the hands of a small number of individuals by excluding most shareholders from board membership. Although the average directorial qualifications in our sample was 0.5 per cent of the company's par value, directorial requirements were set low enough that, on average, 29.3 per cent of shareholders had enough shares to become directors, which suggests that directorial qualifications were not a means for a resolute group of large shareholders to secure control.

Although the companies in our sample may have lacked blockholders and active governance from large shareholders, this does not imply that they had a modern-style separation of ownership and control since shareholders, small and large, may have had more incentive to be active. Firstly, the cost of being an active shareholder may have been much lower in the Victorian context as many shareholders lived in the vicinity of the company's headquarters or operations. Secondly, illiquid capital markets meant that it was more

[51] Florence, *Ownership*, p. 46; See also Cheffins, *Corporate ownership*, p. 22.

[52] Campbell and Turner, 'Substitutes', p. 582; Chadwyck-Healey, *Treatise*, p.134; Emden, *Shareholders' legal guide*, p.8.

difficult for investors to perform the Victorian version of the ‘Wall Street Walk’, making them less likely to be passive investors. Thus, it is entirely possible, that small shareholders in our era were not passive, unlike their twenty-first-century counterparts.

<INSERT TABLE 6 HERE>

The results presented in this section illustrate that Victorian companies had dispersed ownership by modern standards. However, there are important caveats to this conclusion. The identity of large shareholders has changed over time with passive financial institutions and asset managers being more prevalent now. In addition, if the largest twenty shareholders in a particular firm had been willing and able to form a coalition, they would generally have controlled a substantial interest in that firm.

VI

As can be seen from Table 3, the low concentration of ownership and voting in Victorian Britain is not being driven by one or two industries. All industries in Table 3 can be described more or less as having diffuse ownership. The most diffuse sector in terms of capital concentration is banking and in terms of voting concentration, banking is joined by insurance and finance companies as the least concentrated.

Banking, finance, and insurance companies typically structured their articles of association to ensure that they had diffuse ownership by restricting the amount of shares any one investor could own and / or by skewing their voting scales in favour of small investors.[53] One reason for doing so was that such companies usually had uncalled capital or extended liability, and depositors and policy-holders with these companies may have preferred to see the company’s shares dispersed amongst many owners because there was less risk of many owners becoming bankrupt as compared to a few owners.

[53] Acheson et al., ‘Does limited liability matter?’

As can be seen from Table 3, breweries are at the other end of the ownership concentration spectrum. From 1870 onwards, breweries converted to public limited companies because of increased capital needs arising from technological changes which increased the optimal size of breweries and the need for breweries to secure public houses following regulatory changes in the licensing of public houses.[54] Unlike many other sectors in Table 3, the breweries were well-established businesses before they came to market and their original owners had a desire to maintain as much control as possible once their firms went public.[55]

Table 7 enables us to see whether capital and voting concentration change over time and as companies mature. The first thing to note from Table 7 is that capital and voting concentration decline over time. This suggests that capital and voting rights become more diffuse as companies mature, indicating that the secondary trading of shares may have led to reduced ownership concentration.

<INSERT TABLE 7 HERE>

The second point of note from Table 7 is that as the nineteenth century progresses, the initial concentration of ownership and voting rights increases so that by the 1890s, the five largest investors on average have 43.8 per cent of capital and 42.9 per cent of voting rights, whereas in the 1860s the equivalent figures were 33.0 and 22.8 respectively. The third thing to note is that voting rights are slightly less concentrated than capital over most of the sample period. However, companies established in the 1890s appear to have more concentrated voting rights than capital by the 1900s.

The question arises as to why ownership is much more concentrated for companies establishing in the final decade of our sample period. One possibility is that the companies

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[54] Cottrell, *Industrial finance*, p. 168.

[55] Jefferys, *Business organisation*, p. 268.

establishing in the 1890s are smaller. However, the opposite is the case. Another possibility is that the cohort is dominated by one industry. No one industry dominates, but even if we remove the industry with the highest concentration (breweries), ownership is still much more concentrated for companies establishing in the 1890s. In the *SEOI* and *BOI*, the companies in our sample incorporated in the 1890s were mainly described as being "registered" whereas in previous decades in our sample, the vast majority of companies are described as "established". In other words, what is different about the companies going public in the 1890s is that they are conversions to public company status of established firms which were previously constituted as partnerships. Given this trend in the 1890s, it is perhaps unsurprising that Chandler viewed many British industrial companies at the turn of the twentieth century as being family-controlled enterprises which were "personally managed".[56]

As can be seen from Table 8, which shows how voting rights evolved over time, early in the sample period most companies had voting scales which penalised large investors, with the result that voting rights were more dispersed than capital. In other words, many companies had voting scales which placed a cap on the maximum number of votes which any one investor could have and / or had a graduated voting scale skewed against large owners (e.g., 5-10 shares = 1 vote; 10-25 = 2 votes; 25-50 shares = 3 votes; 50-100 shares = 4 votes; 100-200 shares = 5 votes; and one vote for every additional 200 hundred shares). As can be seen from Table 8, these types of scale became less common amongst companies established in the 1870s and 1880s, and by the 1890s only 19.1 per cent of companies in our sample operated such voting scales. In other words, the majority of companies established in the second half of our sample period operated linear voting schemes i.e., one-share-one-vote schemes or x-shares-one-vote schemes.

<INSERT TABLE 8 HERE>

[56] Chandler, *Scale and scope*, p. 240.

The existence of non-voting preference shares concentrates voting rights to ordinary shareholders, making voting rights relatively more concentrated than capital.[57] As can be seen from Table 8, preference shares were not used much by companies established in the 1850s, 1860s, or 1870s, but they were increasingly popular amongst companies established in the 1880s, and were particularly popular with companies established in the 1890s. The popularity of preference shares amongst these companies explains why voting rights were more concentrated than capital for companies established in the latter part of our sample period.

Table 9, which partitions our sample by voting structure, shows that the presence of voting scales skewed against large owners meant that voting was much less concentrated than capital in those companies. For example, insiders in such companies had, on average, 17.3 per cent of capital, but only 10.2 per cent of votes. The presence of preference shares and regular voting scales meant that voting rights were much more concentrated than capital. For example, insiders in firms with linear voting scales and preference shares had, on average, 20.3 per cent of capital, but controlled 28.8 per cent of votes. This suggests one possible supply-side reason as to why preference shares were issued. Many of the companies which went public from about the 1890s onwards were conversions of long-established partnerships or private companies and the original owners, whilst wanting to raise capital from the public, wished to maintain effective control of their companies. The best way to achieve this end was to issue non-voting preference shares. On the demand side, the rise of preference shares was driven by the rise of middle-class investors interested in a regular fixed income, but not in the governance of a particular company.[58]

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[57] Some preference shares at this time had voting rights attached to them, but we only have eight firm-years in our sample where there were preference shares which had voting rights.

[58] Jefferys, *Business organisation*, p.216.

<INSERT TABLE 9 HERE>

VII

In general, ownership structure was diffuse in Victorian Britain, but there was a wide variation in ownership structure across sample firms, which raises the question as to the correlates and ultimately the potential determinants of ownership structure. In this section, we explore econometrically the correlates of ownership structure in our sample.

Size is usually regarded as an important determinant of ownership structure.[59] Large firms have a need for larger capital resources, implying that the value of a given fraction of ownership will be higher, reducing capital concentration. We use company par value as proxy for size.

According to Demsetz and Lehn, companies located in an industry where it is difficult to assess and monitor managerial performance should have more concentrated ownership.[60] Given the asymmetric information problems endemic in financial institutions, one might expect more concentrated ownership in this industry. In addition, the information asymmetries between managers and shareholders would be large in the mining industry given that many mines were located overseas or far away from stock markets. On the other hand, utilities, which were usually local monopolies characterised by stable prices, technology and market share, should have more diffuse ownership. We use industry dummies to test these conjectures.

As Hilt and Musacchio have suggested that voting rights potentially determine ownership structure, we use two binary variables to capture whether voting rights which discriminate against or empower large shareholders are correlated with ownership

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[59] Demsetz and Lehn, 'Structure of corporate ownership'.

[60] Demsetz and Lehn, 'Structure of corporate ownership'.

concentration.[61] The first binary variable takes account of whether a firm has issued non-voting preference shares, whilst the second takes account of whether a company has a non-linear voting structure.

Hannah has hypothesised that having a prestigious official listing contributed to the diffusion of ownership because of the two-thirds rule.[62] We test this hypothesis by creating a binary variable which takes the value one if a company was on the official list of the stock exchange, zero otherwise. As some scholars have claimed that trust and the proximity of investors to company headquarters resulted in ownership diffusion occurring in Britain, we also create a variable which attempts to capture the proximity of shareholders as a body to the company headquarters.[63] As Britain had multiple regional stock exchanges in the Victorian era, we exploit this fact to create a variable which measures the distance between a company's headquarters and the main stock exchange where its shares were traded.

We also test a few additional hypotheses. As some companies in Victorian Britain had their shares traded on more than one stock market, we expect that the greater the number of stock exchanges a company was traded on, the less concentrated was its ownership. We also expect companies with a head office in London to have more diffuse ownership, since they potentially have access to a larger capital market and number of investors.

Campbell and Turner and Foreman-Peck and Hannah find that larger boards in the Victorian and Edwardian periods are associated with better performing companies, which could be interpreted as larger boards alleviating the agency problems that are associated with diffuse ownership, since the greater the number of directors, the greater the cost of collusion with executive directors and the greater the degree of mutual monitoring conducted by

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[61] Hilt, 'When did ownership separate from control'; Musacchio, *Experiments*, p. 110-5.

[62] Hannah, 'Divorce of ownership'.

[63] Franks et al., 'Ownership'.

directors.[64] In addition, the existence of directorial share qualifications in most companies meant that the greater the number of directors, the greater the incentives of directors to monitor company executives.[65] We therefore explore the correlation between board size and ownership structure.

Uncalled capital, whereby a proportion of a company's capital remained unpaid, was a common feature of stocks in this era.[66] The presence of uncalled capital could potentially result in more diffuse ownership as investors are reluctant to take large stakes because of the liability which is attached to share ownership or it could result in concentrated ownership as it lowers the costs of monitoring co-owners to ensure that they have adequate wealth to pay potential calls.[67] We therefore test whether the amount of uncalled capital was correlated with ownership concentration.

As companies had a wide range of share denominations in this era (see Appendix Table 2), we examine whether denomination was correlated with ownership concentration, since the affordability of shares might be an important determinant of ownership dispersion.

The dependent variables in our multivariate regressions are the logs of the percentage of capital and voting rights held by insiders, the percentage of capital and voting rights held by largest five shareholders, and the Herfindahl index of capital and voting rights. As well as the various independent variables mentioned above, we control for the ultimate fate of the company to ensure that the results are not being driven by a performance bias. We also control for the establishment date of the company, the date of the ownership census, and the size of a company's directorial share qualification. Variable definitions and data sources are

[64] Campbell and Turner, 'Substitutes' and Foreman-Peck and Hannah, 'Some consequences'. See also Hermalin and Weisbach, 'Boards of directors', p. 10;

[65] Campbell and Turner, 'Substitutes', p.583.

[66] Jefferys, *Business Organisation*, pp. 169-176; Acheson et al. 'The character and denomination'.

[67] Acheson et al. 'The character and denomination'.

reported in Appendix Table 1 and summary statistics are in Appendix Table 2. The results from Ordinary Least Squares regressions are reported in Table 10 and these results are robust to the use of panel specifications with random effects. In our regression analysis, we only show correlations between variables and our results do not imply causality.

<INSERT TABLE 10>

As can be seen from Table 10, there is little statistical or economic relationship between ownership structure and firm size. Notably, Hilt and Musacchio also find that size and ownership structure are unrelated.[68] One explanation for this finding is that as one of the main benefits of incorporating is that ownership can be separated from control, one should not expect firm size to be an important determinant of ownership structure. Another explanation is that the amount of capital or votes controlled by insiders was almost immaterial from the point of view of actual control of the company. Yet another possibility is that many of the early firms in our sample were set up with no blockholders, unlike modern-day firms and unlike firms towards the end of our sample period. Therefore, whether big or small, companies had dispersed ownership.

The industry binary variables in Table 10 reveal that industries in Victorian Britain, where it was more difficult to assess and monitor managerial performance (e.g., mining and financial companies), do not have more diffuse ownership than companies where it is easier to assess managerial performance (e.g., utilities). This goes against Demsetz and Lehn's view. Indeed, financial institutions have much more diffuse ownership than other sectors. One possibility could be that the financial sector was regulated or monitored by the government, thus ensuring trust in this sector.[69] However, this sector faced no regulation until well into the twentieth century. A more likely possibly is that this result arises from the

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[68] Hilt, 'When did ownership separate from control'; Musacchio, *Experiments*, p. 110-5.

[69] Demsetz and Lehn, 'Structure of corporate ownership'.

fact that some banks and insurance companies limited the amount of shares that any one individual could own.

The two variables which attempt to capture the voting structures of companies (*NonVotePreference* and *VotingNonLinear*) reveal that neither has an effect on capital concentration (specifications 1 to 3), but that the presence of voting schemes which discriminate against large investors results in less concentrated voting rights (specifications 4 to 6), which is consistent with the findings reported in the previous section and those of Hilt and Musacchio.

The regression results also suggest that there is no correlation between being on the Official List and ownership concentration, which raises a question about the role played by official listing requirements in separating ownership from control.[70]

Four of the six coefficients in specifications 1 to 6 on the *LocalMiles* variable are statistically significant, and each of these coefficients is positive but very small in an economic sense. This finding suggests that the proximity of investors to a company is not closely related with ownership structure, which is inconsistent with the notion that trust may be higher amongst investors living in proximity to companies and their directors.

As can be seen from the negative and statistically significant coefficient on the *NumMarkets* variable, the greater the number of markets a company's shares were traded on, the less concentrated was its capital and voting, which is consistent with our expectation. The results in Table 10 also reveal that companies with a head office in London tended to have less capital and voting concentrated in the hands of insiders and less capital and voting

[70] When a random effects specification is used, the coefficients on this variable in the three regressions where voting rights is the dependent variable are statistically significant and positive, which implies that an official listing is correlated with more concentrated ownership.

concentrated in the hands of the top five shareholders, which again is consistent with our priors.

Unsurprisingly, specifications 1 and 4 in Table 10 reveal that the greater the number of directors, the more concentrated is the percentage of capital and votes controlled by insiders (i.e., directors and large shareholders). However, the results in specifications 2, 3, 5 and 6 of Table 10 reveal that the greater the number of board members, the lower is the concentration of capital and voting as measured by the percentage held by the largest five investors and the Herfindahl index, which is consistent with our prior expectations.

As can be seen from Table 10, the presence of uncalled capital is uncorrelated with ownership structure. In addition, the coefficient on the *ParValue* variable suggests that the denomination of shares is not correlated with ownership concentration.[71] In other words, neither the character nor denomination of shares mattered for ownership concentration.

There are positive and statistically significant coefficients on the *DirQualScale* variable. As the average director qualification in our regression analysis was 0.4 per cent of paid-up capital (Appendix Table 2), this result is largely an artefact of the qualifications. However, this is not to suggest that the presence of qualifications inspired trust in the company by aligning incentives of directors with shareholders.

As there is a suggestion in the literature that company promoters designed company bylaws not necessarily to have dispersed ownership, but simply to have a large number of shareholders, we examine the effect of our various independent variables on the log of the number of shareholders (see specification 7 of Table 10).[72] Notably, voting regimes which discriminated against large shareholders and the presence of preference shares had no bearing

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[71] For the sake of robustness, we also use par value as a percentage of average annual income, but it makes no difference to this finding.

[72] Hilt, 'When did ownership separate from control'.

on the number of shareholders. Most other independent variables have the expected sign, but surprisingly an official listing is correlated with a lower number of shareholders.

The statistically significant positive coefficients on the *EstablishmentDate* variable in Table 10 confirms our earlier findings that older firms have lower capital and voting concentration. The statistically significant negative coefficients on the *OwnershipDate* variable indicate that ownership becomes less concentrated as the nineteenth century progresses.

In summary, the main findings from our regressions are that the diffusion of ownership was correlated with having a head office in London as well as the listing of shares on numerous regional stock exchanges. In addition, board size also seems to have played a role in facilitating the diffusion of ownership. Non-linear voting rights, which penalised large investors, were also associated with lower levels of voting concentration.

VIII

The main findings of this paper are fourfold. First, relative to modern-day standards for large publicly-traded companies, never mind medium-sized and small companies, Victorian Britain had dispersed ownership, with ownership being separated from control. If one believes that separating ownership from control is one of the definitive features of the corporation, this finding is, in one sense, not that surprising. However, for reasons outlined above, one needs to be circumspect in ascribing a modern-style separation of ownership and control to public companies in Victorian Britain.

Second, given the limited shareholder protection afforded by the 1862 Companies Act, the dispersed nature of ownership in this period is evidence against the law and finance hypothesis, which argues that strong investor protection law is a prerequisite for dispersed ownership. This raises a question as to why dispersed ownership was commonplace. A

combination of factors may have played a role. Capital market discipline, investors demand for nearly all earnings to be paid out as dividends, and local stock exchanges may have also played a role in the rise of dispersed ownership.[73] Another possibility is that diffuse ownership was possible as ownership did not fully separate from control, because coalitions of shareholders controlled companies. This possibility needs to be explored in future work.

Third, we find that ownership structure was correlated with several factors. A diffuse ownership structure was more likely to be found in companies which had larger boards, a head office in London, non-linear voting scales, and shares traded on more than one stock market.

Fourth, although concentration of ownership tended to erode within each cohort over time, companies formed in the 1890s had greater capital and voting concentration than those formed in earlier decades, and, unlike companies formed in earlier decades, the insiders in these companies were able to maintain their voting rights. Future research should focus on why this turn happened and the long-run effect of it on the UK's corporate economy.

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[73] Campbell and Turner, 'Substitutes'

References

Acheson, G. G., Hickson, C. R., Turner, J. D. and Ye, Q., 'Rule Britannia!: British stock market returns, 1825-1870', *Journal of Economic History,* 69 (2009), pp. 1107-37.

Acheson, G.G., Hickson, C. R. and Turner, J. D., 'Does limited liability matter? Evidence from nineteenth-century British banking', *Review of Law and Economics*, 6 (2011), pp. 247-73.

Acheson, G. G., Turner, J. D. and Ye, Q., 'The character and denomination of shares in the Victorian equity market', *Economic History Review*, 2nd ser., LXV (2012), pp. 862-86.

Bebchuk, L. B. and Roe, M. J., 'A theory of path dependence in corporate ownership and governance', *Stanford Law Review*, 52 (1999), pp. 127-70.

Berle, A. and Means, G., *The Modern Corporation and Private Property* (New York, 1932).

Braggion, F. and Moore, L., 'Dividend policies in an unregulated market: the London Stock Exchange 1895-1905', *Review of Financial Studies*, 24 (2011), pp. 2935-73.

Campbell, G. and Turner, J. D., 'Substitutes for legal protection: corporate governance and dividends in Victorian Britain', *Economic History Review*, 2nd ser., LXIV (2011), pp. 571-97.

Chadwyck-Healey, C. E. H., *A treatise on the law and practice relating to joint stock companies under the Acts of 1862-1883* (1884).

Chandler, A. D., *Scale and scope: The dynamics of industrial capitalism* (Cambridge, 1990).

Cheffins, B. R., 'History and the global corporate governance revolution: the UK perspective', *Business History*, 43 (2001), pp. 87-118.

Cheffins, B. R., 'Does law matter? The separation of ownership and control in the United Kingdom', *Journal of Legal Studies*, 30 (2001), pp. 459-84.

Cheffins, B. R., *Corporate ownership and control: British business transformed* (Oxford, 2008).

Cheffins, B. R. and Bank, S., 'Is Berle and Means really a myth?', *Business History Review*, 83 (2009), pp. 443-74.

Cheffins, B. R., Chambers, D. and Koustas, D. K., 'Ownership dispersion and the London Stock Exchange's "two-thirds rule": an empirical test', *Business History*, 55 (2013), pp. 670-93.

Coffee, J. C., 'The rise of dispersed ownership: the roles of law and the state in the separation of ownership and control', *The Yale Law Journal*, 111 (2001), pp. 1-82.

Cottrell, P. L., *Industrial finance, 1830-1914* (1980).

Davies, J. R., Hillier D. and McColgan, P. 'Ownership structure, managerial behavior and corporate value', *Journal of Corporate Finance*, 11 (2005), pp. 645-60.

Demsetz, H. and Lehn, K., 'The structure of corporate ownership: causes and consequences', *Journal of Political Economy*, 93 (1985), pp. 1155-77.

Djankov, S., La Porta, R., Lopez-De-Silanes, F. and Shleifer, A., 'The law and economics of self-dealing', *Journal of Financial Economics*, 88 (2008), pp. 430-65.

Elbaum, B. and Lazonick, W., 'The decline of the British economy: an institutional perspective', *Journal of Economic History*, 44 (1984), pp. 567-83.

Emden, A. *The shareholders' legal guide; being a statement of the law relating to shares, and of the legal rights and responsibilities of shareholders* (1884).

Faccio, M. and Lang, L. H. P., 'The ultimate ownership of Western European corporations', *Journal of Financial Economics*, 65 (2002), pp. 365-95.

Florence, P. S., *Ownership, control and success of large corporations: an analysis of English industrial structure and policy, 1936-1951* (1961).

Foreman-Peck, J. and Hannah, L., 'Extreme divorce: the managerial revolution in UK companies before 1914', *Economic History Review*, 2nd ser., LXV (2012), pp. 1217-1238.

Foreman-Peck, J. and Hannah, L., 'Some consequences of the early twentieth century British divorce of ownership from control', *Business History*, 55 (2013), pp.543-64.

Franks, J., Mayer, C. and Rossi, S., 'Ownership: evolution and regulation', *Review of Financial Studies*, 22 (2009), pp. 4009-56.

Franks, J., Mayer, C. and Miyajima, H., 'Equity markets and institutions: the case of Japan', *RIETI Discussion Paper Series*, 09-E-039 (2009).

Freeman, M. Pearson, R. and Taylor, J., *Shareholder democracies? Corporate governance in Britain and Ireland before 1850* (Chicago, 2012).

Grossman, R. S., 'New indices of British equity prices, 1870-1913', *Journal of Economic History*, 62 (2002), pp. 121-46.

Hannah, L., 'The divorce of ownership from control from 1900: re-calibrating imagined global historical trends', *Business History*, 49 (2007), pp. 404-38.

Harris, R., *Industrializing English law: entrepreneurship and business organization* (Cambridge, 2000).

Hermalin, B. E. and Weisbach, M. S., 'Boards of directors as an endogenously determined institution: a survey of the economic literature', *Federal Reserve Bank of New York Economic Policy Review*, (2003), pp.7-26.

Hilt, E., 'When did ownership separate from control? Corporate governance in the early nineteenth century', *Journal of Economic History*, 68 (2008), pp. 645-85.

Holderness, C. G., 'The myth of diffuse ownership in the United States', *Review of Financial Studies*, 22 (2009), pp. 1377-1408.

Jefferys, J. B., *Business organisation in Great Britain 1856-1914* (New York, 1977).

Jensen, M. C. and Meckling, W. H., 'Theory of the firm: managerial behavior, agency costs and ownership structure', *Journal of Financial Economics*, 3 (1976), pp. 305–360.

Lamoreaux, N. R., 'Partnerships, corporations, and the theory of the firm', *American Economic Review Papers and Proceedings*, 88 (1998), pp. 66-71.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A. and Vishny, R. W., 'Law and finance', *Journal of Political Economy*, 106 (1998), pp. 1113-55.

La Porta, R., Lopez-De-Silanes, F. and Shleifer, A., 'Corporate ownership around the world', *Journal of Finance*, 54 (1999), pp. 471-517.

La Porta, R., Lopez-De-Silanes, F. and Shleifer, A., 'The economic consequences of legal origins', *Journal of Economic Literature*, 46 (2008), pp. 285-332.

Leech, D. and Leahy, J., 'Ownership structure, control type classifications and the performance of large British companies', *Economic Journal*, 101 (1991), pp. 1418-37.

Lipartito, K. and Morii, Y., 'Rethinking the separation of ownership from management in American history', *Seattle University Law Review*, 33 (2010), pp. 1025-63.

Musacchio, A., 'Laws versus contracts: legal origins, shareholder protections, and ownership concentration in Brazil, 1890–1950', *Business History Review*, 82 (2008), pp. 445-73.

Musacchio, A., *Experiments in financial democracy: corporate governance and financial development in Brazil, 1882-1950* (Cambridge, 2009).

Musacchio, A., 'Law and finance c.1900', *NBER Working Paper*, 16216 (2010).

Nyman, S. and Silberston, A., 'The ownership and control of industry', *Oxford Economic Papers*, 30 (1978), pp. 74-101.

Richter, A. and Weiss, C., 'Determinants of ownership concentration in public firms: the importance of firm-, industry- and country-level factors', *International Review of Law and Economics*, 33 (2013), pp. 1-14.

Roe, M. J., 'Political preconditions to separating ownership from corporate control', *Stanford Law Review*, 53 (2000), pp. 539-606.

Rutterford, J., Green, D. R., Maltby, J. and Owens, A., 'Who comprised the nation of shareholders? Gender and investment in Great Britain, c.1870-1935', *Economic History Review*, 2nd ser., LXIV (2011), pp. 157-87.

Scott, J., 'Corporate control and corporate rule: Britain in an international perspective', *British Journal of Sociology*, 41 (1990), pp. 351-73.

Short, H. and Keasey, K., 'Managerial ownership and the performance of firms: Evidence from the UK', *Journal of Corporate Finance*, 5 (1999), pp. 79-101.

Table 1. Ownership diffusion of several companies, 1821-45

Company	Year	Capital held by largest shareholder (%)	Capital held by largest five shareholders (%)
Bradford Banking Company	1827	1.5	7.3
Great Western Railway	1843	1.6	5.8
Guardian Insurance Company	1821	0.3	1.3
Guardian Insurance Company	1845	0.3	1.3
Hampshire Banking Company	1835	4.4	18.9
Royal Exchange Assurance	1838	2.3	9.7
Sheffield and Hallamshire Bank	1836	2.0	9.8
Union Bank of Scotland	1841	4.4	14.0
Ulster Banking Company	1836	1.0	5.2

Sources: HSBC Archives, Deed of Copartnership of Bradford Banking Company; National Archives, RAIL 251/28, 38 and 50, Great Western Railway holders of £100, £50 and £20 shares 1843; Lloyds-TSB Archives, 1085, Hampshire Banking Company Shareholders' Register: London Metropolitan Archive, CLC/B/107/ms18093.01-03, Guardian Shareholder Register 1821, 1845; London Metropolitan Archive, CLC/B/107/MS16233/001-002, Royal Exchange Assurance Shareholder Register 1838; HSBC Archives, 598/1-2, Share Registers of Sheffield and Hallamshire Bank, volumes 1 and 2: HBOS Archive, NRA 1110/1/24/14, Union Banking Company, List of Shareholders, 1841: Public Record Office of Northern Ireland, D/3499/CA/1, Ulster Banking Company Register of Shareholders.

Table 2. Sample summary statistics

Year	Relative size of companies compared to all non-railway companies in *Investor's Monthly Manual*				Total companies in sample	Average company size £(000)s	Average number of shareholders
	Top 10%	Top 20%	Top 50%	Bottom 50%			
1853-1868	-	-	-	-	144	154.1	312.4
1869-1879	7	16	52	79	131	211.0	333.5
1880-1889	12	25	104	159	263	210.4	373.4
1890-1899	1	14	77	139	216	220.3	464.7
1900-1902	2	9	34	84	118	244.3	594.9
Total 1869-1902	22	64	267	461	728	218.9	429.2
Total 1853-1902					872	208.2	409.9
Missing Par					18		458.0
Whole sample					890		410.9

Source: *Investor's Monthly Manual*, 1868-1902, which was available from the International Center for Finance at Yale University. See text for sources of shareholder numbers.

Notes: As the many railways traded on British stock markets were large, their inclusion in this table would mean that there would be fewer of our sample companies in the top two deciles or the top half of the size distribution of public companies. Two shareholder returns for 1853 are included in our sample as these had been preserved in the archives. These were companies formed under the 1844 Companies Act which subsequently registered under the 1862 Companies Act. The relative size of companies compared to non-railway companies is the average of the yearly figures. Company size is measured in terms of the par value of its equity. There are 18 of the 890 firm years for which we do not have accurate data on their par value.

Table 3. Average capital and voting concentration by industry

		Capital concentration			Voting concentration		
	N	% held by Insiders	% held by Largest 5 Investors	Herfindahl Index (%)	% held by Insiders	% held by Largest 5 Investors	Herfindahl Index (%)
Banks	140	11.7	16.1	1.3	9.3	11.6	1.1
Breweries	35	26.1	40.7	7.6	33.7	39.7	9.3
Commercial and Industrial	231	23.1	32.0	4.8	20.1	26.9	4.7
Docks	2	34.7	37.9	3.9	29.3	35.3	3.6
Finance	29	16.3	23.3	2.6	12.0	14.9	1.5
Gas and Light	36	15.4	22.9	3.0	14.3	19.0	3.2
Insurance	50	17.1	22.3	3.7	10.9	11.9	1.1
Iron, Coal and Steel	65	20.9	33.8	5.7	19.0	30.2	4.5
Mines	47	17.6	27.3	3.7	12.2	21.2	2.9
Mortgage and Finance	73	14.2	22.8	3.2	11.9	18.5	2.5
Spinning and Weaving	35	23.5	22.1	2.4	21.4	24.8	3.0
Steamships	37	19.1	26.5	4.7	20.5	26.0	5.3
Tea and Coffee	15	12.9	32.7	4.0	6.8	21.7	2.2
Telegraph	18	22.3	31.5	7.1	13.8	22.4	5.1
Tramways	19	14.8	23.4	4.9	11.6	20.3	3.9
Wagon	14	20.5	25.4	2.8	17.6	22.7	2.5
Total	846	18.5	26.6	3.9	16.1	22.2	3.5

Source: see text.
Notes: Number of observations varies per measure depending on data availability.

Table 4. Capital and voting concentration in Britain, 1855-2013

		% held by largest investor		% held by 20 largest investors		% held by directors	
Years	N	Mean	Median	Mean	Median	Mean	Median
1853-1880	95	12.17(c)	8.37(c)	56.20(c)	57.60(c)	18.22(c)	12.67(c)
1881-1902	480	10.14(c)	6.35(c)	45.51(c)	43.04(c)	12.78(c)	9.05(c)
1853-1902	575	10.48(c)	6.63(c)	47.27(c)	44.30(c)	13.68(c)	9.45(c)
1911	337	-	-	-	-	6.61(c)	2.45(c)
1936	92	16.27(v)	9.80(v)	40.47(v)	34.20(v)	9.83(c)	2.85(c)
1951	98	13.02(v)	5.50(v)	30.67(v)	21.00(v)	6.53(c)	1.15(c)
1983	470	15.86(c)	-	60.47(c)	-	-	-
1990	225	-	-	-	-	12.91(c)	6.27(c)
1995	802	18.82 (c)	-	-	-	13.02 (c)	-
2013	350	17.49(c)	13.26(c)	72.54(c)	73.36(c)	3.85(c)	0.41(c)

Sources: For the 1853-1902 data see text. The 1911 data consist of the largest 337 companies from that year and is from the online web appendix to Foreman-Peck and Hannah, 'Extreme divorce'. The 1936 and 1951 figures are based on data from the statistical appendix in Florence, *Ownership*, pp. 196-217. Florence's 1936 and 1951 samples contain all non-financial and non-conglomerate companies with an issued share capital in excess of £3m in 1951. The 1983 data are from Leech and Leahy, 'Ownership structure', 1428. Their sample consists of 470 UK-listed companies from a range of industries, with 325 coming from *The Times* 1000 largest industrial companies. The 1990 data are from Short and Keasey, 'Managerial ownership', p. 91. Their sample consists of 225 industrial companies on the London Stock Exchange official list. The 1995 data are from Davies et al., 'Ownership structure', p. 651. Their sample consists of 802 non-financial companies. The 2013 data are from authors' calculations based on data from Bloomberg for the largest 350 companies traded on the London Stock Exchange.
Notes: Capital (c) and voting (v) concentration. The sample size for the 1853-1902 data is limited to those companies where we have information on director ownership data.

Table 5. Capital concentration of companies in market indices in 2013

	% of companies with a single shareholder owning more than 10%	% held by largest investor		% held by 5 largest investors	
		Median	Mean	Median	Mean
Dow Jones	20.0	7.1	9.6	24.6	27.4
S&P 500	37.3	8.6	10.3	30.9	32.5
FTSE 100	50.5	10.0	16.0	28.9	35.5
DAX 30	51.7	10.9	16.2	30.8	32.0
S&P MidCap 400	51.8	10.2	11.3	34.1	35.7
CAC 40	57.9	11.7	18.7	31.0	33.7
S&P SmallCap 600	60.3	10.8	12.5	37.8	39.1
FTSE 250	75.1	14.1	18.1	40.3	43.8
S&P Asia	77.6	18.0	25.2	38.1	42.1
MDAX	79.2	25.8	32.9	45.4	49.3
Ibovespa	81.0	22.3	25.6	50.4	49.7
CAC Mid 60	88.3	29.8	33.6	54.1	50.5
Victorian Britain	35.6	6.8	10.5	21.5	26.6

Source: Bloomberg and authors' calculations.
Notes: The Dow Jones consists of 30 large US corporations. The S&P 500 is an index of 500 large US corporations, the S&P MidCap 400 is an index of 400 midcap US corporations, and the S&P SmallCap 600 is an index of 600 smallcap US corporations. The FTSE 100 is an index of the 100 largest companies traded on the London Stock Exchange, whereas the FTSE 250 consists of companies ranked 101 to 350 in terms on size on the London market. The DAX 30 consists of 30 major German companies trading on the Frankfurt Stock Exchange and the MDAX consists of 50 German companies (excluding technology companies) just outside the top 30 German companies. The CAC 40 consists of the 40 most significant companies traded on the Paris Bourse and the CAC Mid 60 is a midcap index for the Paris Bourse, which consists of the 60 largest companies outside of the top 60 companies. The S&P Asia consists of 50 large companies drawn from Hong Kong, Singapore, South Korea, and Taiwan. The IBovespa consists of the top 50 companies traded on the São Paulo Stock Exchange.

Table 6. Summary statistics of capital and voting concentration (%)

	Companies	Average no. per company	Mean	St. dev.	Min.	Median	Max.
Panel A: Capital concentration							
Herfindahl	846		3.9	6.3	0.1	1.8	83.7
% held by largest							
Investor	846		10.5	10.7	0.4	6.8	91.3
5 investors	846		26.6	17.0	1.9	21.5	98.7
10 investors	846		36.8	19.4	3.9	32.4	100.0
20 investors	846		49.1	21.2	7.8	46.0	100.0
% held by insiders (all companies for which director and capital data available)							
just directors (a)	575	5.8	8.8	6.2	0.0	7.3	44.7
just large shareholder (b)	575	0.3	4.8	11.9	0.0	0.0	86.5
both director and large sh (c)	575	0.3	4.9	12.8	0.0	0.0	91.3
insider (a+b+c)	575	6.4	18.5	17.9	0.8	12.2	98.0
Panel B: Voting concentration							
Herfindahl	729		3.5	8.1	0.0	1.4	100.0
% held by largest							
Investor	729		8.6	11.6	0.0	4.9	100.0
5 investors	729		22.2	18.2	0.2	17.3	100.0
10 investors	729		31.1	20.7	0.5	26.7	100.0
20 investors	729		42.6	22.6	1.0	40.5	100.0
% held by insiders (all companies for which director and voting data available)							
just director (a)	559	5.9	8.0	6.3	0.0	6.2	34.4
just large shareholder (b)	559	0.2	3.7	11.7	0.0	0.0	100.0
both director and large sh (c)	559	0.2	4.3	13.3	0.0	0.0	91.3
insider (a+b+c)	559	6.3	16.1	18.4	0.5	9.0	100.0

Source: see text.
Notes: 44 of our firm-years have multiple classes of shares (i.e., ordinary and preference shares) where it has proved impossible to match up shareholder names of different classes in order to work out capital concentration for all 890 firm-years. However, we can calculate the concentration of voting rights for such firms, provided we have the company's voting scale. The Herfindahl Index is the sum of the squared proportion of capital owned by each investor in a company. Large shareholders are defined as those who own more than 10 per cent of capital in a firm for capital data or 10 per cent of votes for voting data. Insiders are defined as directors plus owners with more than 10 per cent of capital.

Table 7. Capital and voting concentration by establishment date and ownership census date

Panel A: Capital concentration

		% of capital owned by 5 largest investors								Number of observations						
		Decade in which ownership census taken								Decade in which ownership census taken						
		1850s	1860s	1870s	1880s	1890s	1900s	Total		1850s	1860s	1870s	1880s	1890s	1900s	Total
Decade in which company established	<=1850s	20.1	20.4	20.2	17.8	10.5	12.1	16.2	<=1850s	8	15	13	38	21	20	115
	1860s	.	33.0	30.1	26.2	24.8	23.9	29.1	1860s	0	105	66	64	47	16	298
	1870s	.	.	33.5	26.9	25.0	19.9	25.9	1870s	0	0	16	72	47	24	159
	1880s	.	.	.	31.3	26.9	19.7	27.0	1880s	0	0	0	52	52	30	134
	1890s	.	.	.	.	43.8	32.7	38.5	1890s	0	0	0	0	23	21	44
	Overall	20.1	31.4	29.3	26.2	26.1	21.4	26.6	Overall	8	120	95	226	190	111	750

Panel B: Voting concentration

		% of voting rights controlled by 5 largest investors								Number of observations						
		Decade in which ownership census taken								Decade in which ownership census taken						
		1850s	1860s	1870s	1880s	1890s	1900s	Total		1850s	1860s	1870s	1880s	1890s	1900s	Total
Decade in which company established	<=1850s	12.2	10.6	6.8	10.1	8.8	7.4	9.2	<=1850s	5	12	10	35	21	19	102
	1860s	.	22.8	23.5	21.0	19.3	21.4	21.9	1860s	0	98	61	68	46	15	288
	1870s	.	.	26.5	23.7	22.4	17.5	22.8	1870s	0	0	16	68	43	18	145
	1880s	.	.	.	29.4	24.7	20.8	25.5	1880s	0	0	0	50	50	32	132
	1890s	.	.	.	.	42.9	41.4	42.3	1890s	0	0	0	0	26	21	47
	Overall	12.2	21.5	22.2	22.0	23.6	22.0	22.3	Overall	5	110	87	221	186	105	714

Source: see text.

Table 8. Percentage of companies with particular voting structures by decade in which company was established

Decade in which firm established	N	Non-Linear Voting Rights (%)	Existence of Non-voting Preference Shares (%)
<=1850s	102	68.6	6.9
1860s	288	58.7	5.9
1870s	145	31.0	15.2
1880s	132	29.5	22.7
1890s	47	19.1	42.6
Total	714	46.5	13.4

Source: see text.
Notes: Non-Linear Voting Rights penalise large investors and make voting rights relatively more disperse than capital. The way in which this could be achieved would be to have a graduated voting scale or a cap on the maximum number of votes in the hands of any individual shareholder.

Table 9. Average capital and voting concentrations by voting structures

Voting structures		% held by insiders			% held by largest 5 investors			Herfindahl Index (%)		
Voting rights non-linear	Existence of non-voting preference shares	N	Capital	Votes	N	Capital	Votes	N	Capital	Votes
No	No	236	19.0	19.4	307	27.6	27.8	307	4.3	4.4
Yes	No	223	17.3	10.2	313	25.5	14.4	313	3.6	1.9
No	Yes	50	20.3	28.8	52	28.6	37.0	52	4.3	9.9
Yes	Yes	11	13.2	14.0	13	19.4	17.0	13	2.2	2.9
	Overall	520	18.3	16.3	685	26.5	22.2	685	4.0	3.6

Source: see text.
Notes: The first row is usually a basic one-vote-per-share or x-votes-per-share arrangement with no preference shares. The small difference between capital and voting concentration is that for some companies it may have been one vote for five shares, so anyone holding four shares did not get a vote, those holding nine shares only got one vote etc.. Insiders are defined as directors, or owners with more than 10 per cent of capital. The Herfindahl Index is the sum of the squared proportion of capital owned by each investor in a company. The sample in this table is restricted to companies where both capital and voting data available.

Table 10. Regression results

Variables	Capital concentration			Voting concentration			
	(1) % held by Insiders	(2) % held by 5 largest investors	(3) Herfindahl Index	(4) % held by Insiders	(5) % held by 5 largest investors	(6) Herfindahl Index	(7) Number of shareholders
OwnershipDate	-0.018***	-0.013***	-0.022***	-0.015***	-0.014***	-0.017***	0.017***
	(0.005)	(0.003)	(0.005)	(0.005)	(0.004)	(0.005)	(0.003)
EstablishmentDate	0.016***	0.014***	0.020***	0.019***	0.019***	0.022***	-0.005**
	(0.003)	(0.002)	(0.003)	(0.003)	(0.002)	(0.003)	(0.002)
Size	0.047	0.027	0.025	0.046	-0.018	-0.002	0.361***
	(0.054)	(0.033)	(0.058)	(0.056)	(0.040)	(0.059)	(0.039)
ParValue	0.001	0.002	0.002	0.002	0.004	0.003	-0.013***
	(0.003)	(0.002)	(0.005)	(0.003)	(0.003)	(0.005)	(0.003)
Uncalled	-0.001	-0.003*	-0.003	0.000	-0.004*	-0.000	-0.002
	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.002)
OfficialListing	0.120	0.009	0.132	0.085	0.113	0.183	-0.241**
	(0.175)	(0.093)	(0.158)	(0.145)	(0.100)	(0.143)	(0.107)
NumMarkets	-0.309***	-0.101***	-0.202***	-0.256***	-0.126***	-0.226***	0.173***
	(0.055)	(0.032)	(0.055)	(0.052)	(0.040)	(0.055)	(0.032)
HeadLondon	-0.488***	-0.149*	-0.183	-0.451***	-0.235**	-0.190	0.143
	(0.156)	(0.085)	(0.144)	(0.134)	(0.097)	(0.128)	(0.119)
Scottish	-0.191*	-0.189***	-0.219*	-0.142	-0.228**	-0.117	-0.133*
	(0.114)	(0.073)	(0.118)	(0.127)	(0.100)	(0.120)	(0.075)
LocalMiles	0.002**	0.001	0.001*	0.002**	-0.000	0.002**	-0.002***
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)
NumDirectors	0.027*	-0.050***	-0.064***	0.035**	-0.051***	-0.064***	0.043***
	(0.014)	(0.010)	(0.017)	(0.015)	(0.012)	(0.017)	(0.013)
DirectorQualPoundsScale	0.372***	0.222***	0.344***	0.429***	0.239***	0.368***	-0.253***
	(0.082)	(0.054)	(0.081)	(0.087)	(0.067)	(0.089)	(0.068)
NonVotePreference	-0.003	-0.111	-0.188	0.075	0.058	0.127	0.137
	(0.167)	(0.091)	(0.167)	(0.146)	(0.085)	(0.140)	(0.085)
VotingNonLinear	-0.031	-0.018	-0.009	-0.552***	-0.713***	-0.711***	0.041
	(0.093)	(0.054)	(0.093)	(0.092)	(0.070)	(0.095)	(0.053)
IndustryMines	0.123	0.056	-0.096	0.176	0.045	-0.071	0.302*
	(0.249)	(0.130)	(0.214)	(0.235)	(0.145)	(0.214)	(0.169)
IndustryUtility	-0.091	-0.049	-0.108	0.229	0.110	0.067	-0.007
	(0.195)	(0.119)	(0.219)	(0.165)	(0.112)	(0.194)	(0.105)
IndustryFinancial	-0.378***	-0.225***	-0.429***	-0.315***	-0.236***	-0.394***	0.275***
	(0.101)	(0.066)	(0.116)	(0.108)	(0.080)	(0.110)	(0.068)
IndustryBreweries	-0.327	0.099	0.096	0.171	0.129	0.196	-0.207
	(0.320)	(0.133)	(0.259)	(0.295)	(0.129)	(0.273)	(0.223)
Merged	0.231**	0.105*	0.179*	0.284***	0.127*	0.218**	-0.010
	(0.102)	(0.059)	(0.106)	(0.101)	(0.067)	(0.104)	(0.065)
CourtWoundup	0.360*	0.196*	0.362*	0.435**	0.274*	0.351	-0.217
	(0.208)	(0.117)	(0.200)	(0.219)	(0.163)	(0.217)	(0.145)
DefunctYear	0.003	0.001	0.003	0.002	0.001	0.003	-0.000
	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
Constant	-4.553	-5.644	-7.296	-14.349	-12.641	-16.460	-21.234***
	(11.160)	(6.857)	(11.402)	(11.115)	(8.347)	(11.360)	(7.420)
Observations	421	436	436	456	472	472	472
R-squared	0.275	0.434	0.377	0.335	0.567	0.463	0.534

Notes: All the dependent variables are in log form so as to make them closer to being normally distributed. Robust standard errors are in parentheses, and *** p<0.01, ** p<0.05, * p<0.1. Firm-years where there were director qualifications but where less than 80% of directors held shares have been removed from columns (1) and (4). In addition, we removed one outlier, which had a par value of £1,000. If data on certain variables that were unlikely to change over time (i.e., establishment date, head office, number of markets where shares were traded, and director qualifications) were missing for a particular time period, but were available for that company for another time, we assumed the value remained the same. We ran robustness checks without this assumption, which reduced the number of observations, but our regression results remained the same.

Appendix Table 1. Variable definitions

Variable	Description	Data sources
CourtWoundup	A binary variable which equals 1 if the final status of company was that it was wound up by a court, 0 otherwise	RDC, L&EG
DefunctYear	The year the company eventually became defunct	RDC, L&EG
DirectorQualScale	Shareholding requirement for directors scaled by total paid-up capital	AoA, SEOI, BOI
EstablishmentDate	Year in which company was established	AoA, SEOI, BOI
HeadLondon	A binary variable which equals 1 if company has a head office in London, 0 otherwise	AoA, SEOI, BOI
IndustryBreweries	A binary variable which equals 1 if company is a brewery, 0 otherwise	AoA, SEOI, BOI
IndustryFinancial	A binary variable which equals 1 if company is in financial sector, 0 otherwise	AoA, SEOI, BOI
IndustryMines	A binary variable which equals 1 if company is in mining industry, 0 otherwise	AoA, SEOI, BOI
IndustryUtility	A binary variable which equals 1 if company is a utility, 0 otherwise	AoA, SEOI, BOI
LocalMiles	The distance (in miles) between a company's head office and the main market where its shares are traded	AoA, IMM, SEOI, BOI, Google maps
Merged	A binary variable which equals 1 if the final status of company was that it merged, 0 otherwise	RDC
NonVotePreference	A binary variable which equals 1 if company has non-voting preference shares, 0 otherwise	AoA, SEOI, BOI
NumDirectors	The number of directors on the board	AoA, SEOI, BOI, SEY
NumMarkets	The number of stock markets where a company's shares are traded	IMM, SEOI, BOI
OfficialListing	A binary variable which equals 1 if company is listed on the Official List, 0 otherwise	SEOI, BOI
OwnershipDate	Year in which ownership census was taken	Form E ownership returns
Scottish	A binary variable which equals 1 if company is Scottish, 0 otherwise	Form E ownership returns
Size	Natural log of company par (paid-up) value	Form E ownership returns, SEOI, BOI
Uncalled	Difference between nominal capital and paid-up capital i.e., the amount of capital that a shareholder is liable for	IMM, SEOI, BOI
VotingNonLinear	A binary variable which equals 1 if company has non-linear voting scheme, 0 otherwise	AoA, SEOI, BOI

Notes: AoA = Articles of Association; BOI = Burdett's Official Intelligence; IMM = Investor's Monthly Manual; L&EG = London and Edinburgh Gazettes; RDC = Register of Defunct Companies; SEOI = Stock Exchange Official Intelligence; SEY = Stock Exchange Yearbook.

Appendix Table 2. Summary statistics of regression variables

	N	Mean	Standard deviation	Min	Median	Max
Dependent variables						
InsiderCapital (%)	421	16.52	15.87	0.84	10.95	94.68
Largest5Capital (%)	436	23.62	15.40	1.95	19.63	96.86
HerfindahlCapital (%)	436	3.21	5.31	0.13	1.53	38.42
InsiderVotes (%)	456	15.21	17.39	0.58	8.77	100.00
Largest5Votes (%)	472	21.25	17.72	0.24	16.53	100.00
HerfindahlVotes (%)	472	3.39	8.43	0.05	1.29	100.00
NumShareholders	472	476.24	420.96	14.00	352.00	3525.00
Independent variables						
CourtWoundup	472	0.04	0.20	0.00	0.00	1.00
DefunctYear	472	1914	20	1868	1909	1968
DirectorQualScale	472	0.40	0.50	0.00	0.25	5.00
EstablishmentDate	472	1870	17	1820	1873	1899
HeadLondon	472	0.47	0.50	0.00	0.00	1.00
IndustryBreweries	472	0.05	0.22	0.00	0.00	1.00
IndustryFinancial	472	0.35	0.48	0.00	0.00	1.00
IndustryMines	472	0.04	0.20	0.00	0.00	1.00
IndustryUtility	472	0.06	0.23	0.00	0.00	1.00
LocalMiles	472	11.31	50.49	0.00	0.00	498.00
Size	472	11.97	0.97	7.53	11.92	14.60
Merged	472	0.45	0.50	0.00	0.00	1.00
NonVotePreference	472	0.18	0.38	0.00	0.00	1.00
NumDirectors	472	6.09	2.68	2.00	6.00	30.00
NumMarkets	472	1.43	0.84	1.00	1.00	7.00
OfficialListing	472	0.43	0.50	0.00	0.00	1.00
OwnershipDate	472	1889	9	1864	1890	1902
Par	472	9.48	12.26	0.15	7.00	100.00
ParWages	472	0.16	0.22	0.00	0.12	1.81
Scottish	472	0.19	0.39	0.00	0.00	1.00
Uncalled	472	8.45	18.12	0.00	0.69	97.50
VotingNonLinear	472	0.40	0.49	0.00	0.00	1.00

Notes: Summary statistics for dependent variables are reported in their unlogged form.