

Who Financed the Expansion of the Equity Market? Shareholder Clienteles in Victorian Britain

Graeme G. Acheson^{1#}, Gareth Campbell² and John D. Turner²

Accepted for publication in *Business History* by Taylor and Francis

Abstract

Who financed the great expansion of the Victorian equity market, and what attracted them to invest? Using data on 453 firm-years and over 172,000 shareholders, we find that the largest providers of capital were rentiers, men with no formal occupation who relied on investment income. We also see a substantial growth in women investors as time progressed. In terms of clientele effects, we find that rentiers invested in large firms, whilst businessmen were the venture capitalists of young, regional enterprises. Women and the middle classes preferred safe investments, whilst financiers and institutional investors were speculators in foreign companies. Our results may help to explain the growth of new types of assets catering for particular clienteles, and the development of managerial policies on dividends and share issues.

Keywords: Shareholders, Equity, Stock market, Gentlemen capitalists, Rentiers, Gender

JEL codes: G10, N23

¹ University of Stirling

² Queen's University Belfast

Corresponding author: Stirling Management School, University of Stirling, Stirling, FK9 4LA, Scotland;
Email: graeme.acheson@stir.ac.uk

* Thanks to the Leverhulme Trust (Grant no. F/00203/Z) for financial support. Turner also wishes to thank Geoff Jones, Walter Friedman, and Harvard Business School for their hospitality at the outset of this project. Thanks to the archivists at the National Archives at Kew, the National Archives of Scotland, and the Guildhall Library for all their assistance.

1. Introduction

During the late Victorian era, large volumes of capital were provided by individual investors to thousands of publicly-traded companies.¹ There has been an ongoing debate as to how the Victorians chose what securities to invest in, with a considerable amount of research into what encouraged British investors to export much of their capital overseas.² However, there has been little analysis as to what other characteristics of securities were important, and how these characteristics may have attracted different types of investors.³

In this paper, we analyse what types of investors provided capital during the expansion of the equity market in the second half of the nineteenth century, with a focus on those firms which had been formed during this period. We also examine how the types of investor changed over that time period, and whether there were clientele effects, in that companies with particular attributes attracted certain types of shareholders. For example, were businessmen more likely to invest in young industrial firms? Were rentiers attracted to foreign companies, or firms based in London? Were female investors more likely to avoid newly-formed firms and invest in safe dividend-paying domestic stocks?

To analyse these issues, we use shareholder records for companies created in the five decades after the liberalisation of incorporation law in the 1850s and 1860s.⁴ We have complete ownership records detailing the socio-occupational status of investors for 293 companies and 453 company-years, giving us details of over 172,000 ordinary and preference shareholders. We categorise every shareholder according to their socio-occupational status, and analyse which firms attracted which investors.

This analysis makes a major contribution in two ways. Firstly, we significantly enhance our understanding of who provided the capital that financed Victorian public companies.⁵ The largest group, which we refer to as rentiers, were males who did not have a defined occupation, suggesting that they were either retired or wealthy enough not to work.

Businessmen were also substantial providers of capital, although they became less important over time. The middle classes, consisting of professional and white-collar workers, and women provided similar amounts of capital overall. There was considerable growth in the amount contributed by female investors by the end of the century. Unlike the modern era, institutional shareholders such as investment trusts were not substantial investors in equities.

Secondly, we determine what influenced investor behaviour during this era.⁶ We use company- and stock-specific data to explore whether there were clientele effects, with certain types of stocks and companies attracting different types of investors. There have been some suggestions in previous literature as to what may have appealed to particular investor groups. Jefferys has argued that during the Victorian era, stocks which were marketable, had a low denomination, and no uncalled capital proved more attractive to the growing class of rentier investors.⁷ Because the yield on consols had declined by an unprecedented c.30 per cent in the last four decades of the nineteenth century, rentiers were motivated by a “search for yield” to move some of their portfolio into high-yield equities. Davis and Huttenback have suggested that the nobility and gentlemen were more inclined to invest in foreign and colonial securities, whilst businessmen favoured domestic enterprises.⁸ Rutterford et al. have argued that female investors invested in preference shares over ordinary, possibly because they were regarded as safer.⁹

From our analysis, we find that rentiers tended to invest heavily in large companies, and avoided firms which were family owned. They were willing to invest in foreign firms, and companies based and traded in London, but this was largely driven by the financial characteristics of the securities, rather than by any bias. In contrast, businessmen acted as venture capitalists, favouring young, domestic enterprises outside London. Women exhibited a preference for safe investments which paid a dividend, and had a low yield. The middle classes also favoured relatively safe preference shares. Financiers focused on highly liquid,

foreign securities, which they could easily trade and which may have offered higher returns, with institutional investors also concentrating on foreign firms.

These patterns of investment help us to understand not only the behaviour of investors, but also the growth of particular asset classes. For example, women and the middle classes were risk-averse. Companies who wanted to appeal to such clienteles could have issued low-risk securities, and this may help to explain the growth of preference shares and corporate bonds.¹⁰ Such investors were also reluctant to invest directly in foreign companies, and the rise of investment trusts, which focused on overseas securities, may be explained by these risk-averse investors wanting professional help to choose international investments.

The analysis of clienteles also adds a new dimension to our understanding of what influenced managerial decisions during this era. Companies may have taken into account what their particular clientele of investors preferred, which may have affected dividend policy, and the decision on what types of securities to issue.

This paper sits within a growing literature on shareholders in the Victorian era, which has at least five strands. The first strand has been concerned with the geography and background of shareholders in early railways and during the Railway Mania of the mid-1840s.¹¹ The second has focused on investors in banks across the nineteenth century.¹² Since many banks had unlimited liability and converted to limited liability, this literature has focussed on the wealth and suitability of shareholders. It has also focussed on the behaviour of bank investors, finding that investors exhibited a local bias, diversified when they should not have, and viewed bank stocks as consumption goods.¹³ The third strand looks at the relationship between gender and investment.¹⁴ This literature suggests that women were not as passive in this era as has been suggested and were willing to take the risks associated with equity investment. The fourth strand looks at who invested in foreign and colonial firms in

the pre-1913 era,¹⁵ whilst the final strand of the literature is socio-cultural in that it looks at novels and literary references to, as well as public perception of, investors.¹⁶

This paper is related to a wider project which has focussed on corporate ownership in Victorian Britain, using ownership records for a sample of 488 companies. Previous papers from the project have examined the broad structure of corporate ownership (i.e., was ownership diffuse or concentrated?), the effect of corporate ownership structure on firm performance, and an analysis of the largest or dominant owners in these companies.¹⁷ This paper utilises the rich individual shareholder data collected for this project to analyse who invested in the new corporate economy in the second half of the nineteenth century. Thus, in contrast to previous papers from this project, the current paper examines all shareholders in a firm, with a database of over 170,000 individuals.

In addition to its historical insights, this paper also contributes to the financial economics literature on clienteles of investors. In the modern era most investment is channelled through financial institutions, so it is difficult to observe the characteristics and preferences of individual investors. On the contrary, in our sample, we can observe each investor, and determine more precisely their investment behaviour.

This paper is structured as follows. The next section provides some context by looking at the investment opportunity set of Victorian investors. Section three discusses our data sources and methodology. Section four examines the socio-occupational background of shareholders and analyses differences over time and across industrial sectors. Section five explains the empirical strategy and tests, which help us explore the determinants of investor clienteles in order to see the importance of investor home bias, risk, dividends, liquidity, share denomination, and uncalled capital for different groups of investors. Section six reports the results from these tests. Section seven briefly summarises our findings.

2. Investments in Victorian Britain

What types of financial securities could an investor living in the second half of the nineteenth century invest in? In 1853, the nominal value of securities quoted on the Stock Exchange Official List was £1,215.3m; 70.2 per cent of securities in terms of value were British government debt securities, 18.5 per cent were railway securities, 5.7 per cent were foreign and colonial government debt securities, and 5.5 per cent were non-railway corporate equity securities.¹⁸ By 1903, the composition of the Stock Exchange Official List had changed substantially. The total nominal value was £8,833.8m and the composition of this was as follows: 44.1 per cent railway securities, 20.2 per cent foreign and colonial government debt securities, 19.8 per cent were non-railway equity and debenture securities, 15.8 per cent British government debt securities.¹⁹ Two major changes which had taken place over the period are worthy of note. First, non-railway corporate, and particularly equity, securities grew from being relatively unimportant to being a very important outlet for investors. Second, UK investors exported their capital and invested heavily in the debt of foreign governments and in the securities of foreign, and particularly American, railways.

This study focuses on the first of these growth areas – corporate securities issued by new companies which were established following the liberalisation of incorporation law in the mid-1850s. Up until the end of our sample period, the vast majority of non-railway corporate securities were ordinary and preference shares. Because few non-railway companies issued debenture securities (i.e., corporate bonds) before the 1890s,²⁰ the vast majority of securities issued by firms were ordinary and preference shares.

In terms of the pool of investors, there were about 268,000 investors in government securities in 1851 and about one half of these were women.²¹ By way of contrast, very few women invested in early railway securities; in 1848, only 15.7 per cent of the shareholders in the Great Western Railway, one of the largest English railways at the time, were women.²²

However, as railway securities became less risky and became regarded as high-quality investments which paid a steady dividend, women investors in railways were increasingly more common by the end of the century.²³

In this paper, we analyse who invested in the shares of companies which came into existence in the second half of the nineteenth century. The investors in these companies may not be representative of the overall investor population because shares in these new ventures were relatively new to the market, had a limited track record and were potentially riskier than railway securities and Consols, and may not therefore have been attractive to some investors.

3. Data and methodology

The aim of this paper is to look at who financed the new companies which were created in the four decades after the 1862 Companies Act. Companies registered under the 1856 and 1862 Companies Acts were required to lodge a yearly shareholder return with the Registrar of Companies. These returns were on a standardised form, Form E, which had columns for the shareholder's name, number of shares owned, shareholder address, and occupation. Records were kept for both ordinary and preference shares. The returns of companies which were dissolved before 1970 were placed within the Companies Registration Office files at the National Archives at Kew (BT31 series) and the National Archives of Scotland (BT2 series).

Notably, bank and insurance companies set up before 1862 and statutory companies established prior to that date (e.g., railways and other public utilities) are not in our sample unless they registered under the 1862 Act. The vast majority of UK railways were formed in the 1840s, and during the rest of the century there was consolidation of the railway industry. Any new railways which were formed would have incorporated under the Company Clauses Consolidation Act (1845), which was the legislation which governed the incorporation of public utilities which required powers of eminent domain. As this Act did not require the

reporting of shareholder returns to the Registrar of Companies, they did not report shareholder details on a Form E. The absence of railways from our sample, most of which were formed in the first half of the nineteenth century, means that we can focus on the specific aim of the paper, namely examining who financed the expansion of the market in the second half of the nineteenth century.

We examined the collections of the BT2 and BT31 series for the public companies which were quoted either in the *Course of the Exchange* before 1870 or in the *Investor's Monthly Manual* in 1870, 1885, and 1899. Numerous company files contained no ownership returns and most files had been extensively weeded to reduce their bulk.²⁴ Thus, our strategy was to collect ownership returns for the 1850s, 1865, 1870, 1880, 1883, 1890, and 1900 or one year either side of these sample years if the return existed. 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.

After removing unintelligible returns and returns with missing pages, we inputted ownership returns for 488 companies and 890 company-years. Unfortunately, we found that the degree of occupational classification varied significantly. At one extreme, 49 of our company-years reported shareholders occupations 100 per cent of the time, but at the other end of the spectrum, we found 56 company-years which recorded shareholder occupations less than 20 per cent of the time. To create a robust sample of ownership characteristics, we focus only on those companies who had recorded shareholder occupational details 90 per cent of the time or more. We imposed this cut-off point because once one goes beyond it, it becomes questionable if companies were recording occupational details in a systematic and accurate manner. Indeed, of the 437 company-years excluded using this criterion, 47 per cent of shareholder occupation details, on average, were unreported.

The 10 per cent cut-off provided a sample of 293 companies, 453 company-years, 172,473 shareholders, and *circa* £95 million of share capital.²⁵ As there are some companies repeated across various years, the par value of unique companies is £59 million. To place this in context, the *Investor's Monthly Manual* has been analysed in 1885. The total value of ordinary and preference shares issued by non-railways was £390 million. For comparison, the amount of debt issued by the British government was about £650 million, and the par value of securities issued by British railways was about £715 million.

Within our sample, occupational details were missing for 3.9 per cent of individuals after the first phase of data entry. We therefore investigated each individual case using the original records to ascertain why characteristics had not been recorded.²⁶ This sweep improved the overall completeness of our occupational detail to 99.1 per cent. In terms of joint ownership of shares, where two or more individuals owned a share, we took the first named individual as the chief shareholder in the relationship and recorded their occupational status. The rationale for adopting this approach is that Table A of the 1862 Companies Act assigned voting power to the first named owner when stock was jointly held. As joint ownership was relatively uncommon within our sample, this approach should not bias our findings towards a particular socio-occupational grouping.

There is an element of double counting in our sample of 172,473 shareholders. First, we have more than one observation for some companies. However, these are on average 15.9 years apart, which gives time for the shareholder constituency to change. Based on an analysis of the largest shareholders in each company, we found that about 50 per cent of them had disappeared by the time of the next ownership census. The second way in which we could have double counting is that an individual could be a shareholder in more than one company. However, a sub-sample of the 1,158 largest shareholders (i.e, some of the wealthiest shareholders) reveals that less than 1.5 per cent of them held a substantial stake in

more than one of our sample companies, which suggests that we do not have much of a double-counting issue from this source.

Table 1 shows the composition of our sample broken down by decade, industry, headquarters and the markets on which they were traded. We have also included a column in Table 1 which shows the number of companies reported in the *Investor's Monthly Manual* (IMM) for each category. All non-railway companies which had their ordinary or preference shares reported in the IMM at any point between 1869 and 1901 are included. This involved downloading the extensive IMM dataset from the Yale International Center for Finance, and then manually adding information on the industry, headquarters and markets of each firm. The results suggest that our sample is representative of the wider market.

As can be seen from Table 1, our sample has a good spread of ownership censuses across the sample period – 23 per cent from the 1850s and 60s, 14 per cent from 1870s, 29 per cent from 1880s, 24 per cent from 1890s, and 11 per cent from 1900 to 1902. It also has companies from across different industrial sectors, with 23 per cent from banking, 8 per cent from mining, 8 per cent from the insurance sector, 7 per cent from iron, coal and steel, 8 per cent from finance, 5 per cent from utilities, 4 per cent from breweries, and the remaining 38 per cent from a range of industries comprising docks, spinning and weaving, steamships, tea and coffee, telegraph, wagon, and miscellaneous industrial and commercial companies. Banks may be slightly over-represented, but there is a broad range of industries included in our sample which allows us to gain insights from across a wide variety of sectors. We also have a good spread based on location of company headquarters, with 42 per cent from London, 10 per cent from Lancashire, and 7 per cent from Yorkshire. Notably, there is a similar distribution based on where the securities were traded, with just over half of our sample being listed on one of the provincial stock exchanges.

<< Insert Table 1 >>

We have also included a breakdown of how industry composition changed over time, in Table 2. The even spread of industries in each decade implies that our results are not driven by a changing composition of the sample.

<< Insert Table 2 >>

204 of our companies are domestic companies and the other 89 are defined as overseas companies, since their main business was based outside the UK even though they incorporated in the UK. The whereabouts of a company's main business was acquired from memoranda of association located in the BT31 and BT2 files, *Burdett's Official Intelligence*, *Stock Exchange Official Intelligence*, and *Stock Exchange Year-book*.

The companies in our sample were either floated on the stock market from scratch or were conversions of private companies. Consequently, compared to all non-railway companies listed in the IMM, the companies in our sample are relatively small, with less than three per cent of firms in the top decile of companies and the majority of companies being in the bottom 50 per cent of the size distribution.

This study follows previous studies of share ownership in that we use the occupation reported in the ownership returns to assess the socio-occupational make-up of shareholder constituencies. There are, of course, limitations in doing so in that shareholders or company secretaries may overstate or misreport socio-occupational status. However, there would be little incentive for either party to do this in an era of limited liability.

Occupations were classified into broad categories. Rentiers are subdivided into members of the nobility (as signified by titles), gentlemen and esquires. The terms 'gentleman' and 'esquire' occur frequently in the shareholder lists. In the pre-modern era, gentlemen and esquires were members of the landed gentry who made up the second tier of the aristocracy, with esquires being above gentlemen in the hierarchy.²⁷ However, by the second half of the nineteenth century, the term gentleman or esquire was applied more

broadly. Nevertheless, the usage of the term gentleman or esquire in the Victorian era usually signified that one was unoccupied and usually indicated an education at an elite public school.²⁸ The 1891 Census gives some insights into these unoccupied males. In England and Wales, of approximately 7.5 million males over the age of 20²⁹, there were about 450,000 unoccupied³⁰. Of these, 192,611 were ‘Retired from business’, with a further 20,980 categorised as ‘Pensioners’, probably with a military, church or medical background. 96,593 were said to be ‘Living on Own Means’, although almost half of these were also over the age of 65.³¹ Another 136,949 were listed as ‘Other’. This suggests that those categorised as Gentleman and Esquires in the shareholder lists were probably either retired, or from the upper classes and did not need to work, both of which would imply they were rentiers, receiving most of their income from investments.

Businessmen and financiers are considered separately. Businessmen are subdivided into three categories: manufacturers, merchants and retailers. The main way in which we differentiated between these three was as follows: manufacturers produce goods or industrial inputs, merchants are mainly wholesalers or intermediaries, and retailers are involved in the sale of goods to the general public (e.g., tailor, draper and butcher). Financial occupations are divided into bankers, stockbrokers and other finance (e.g., actuaries and accountants). Bank clerks and agents working for financial institutions were not included in these categorisations, but were part of the white-collar categorisation. Institutional investors are categorised as either companies, or investment trusts.

Women are subdivided so as to capture their need for income (widow and spinster) or whether they may have had more male input into their investment decisions (married women). The middle class is split into: professionals (e.g., architects, doctors, dentists, engineers, senior managers etc.), white-collar occupations (e.g., bank clerks, teachers, administrators etc.), legal professionals and clergymen. The working class is subdivided into

the skilled working class (e.g., joiners, painters, coopers, tanners, cabinet makers, cutlers, plumbers etc.) and unskilled working class (e.g., labourers and domestic servants etc.), although the former may in some cases be better classified as businessmen. We also examine some other groups separately, including politicians (mainly Members of Parliament) given their potential access to privileged information, those involved in agriculture who may have kept much of their capital in land, and members of the military who may have had a greater insight into foreign and colonial issues.

4. Who invested?

Table 3 contains the occupational composition of capital and shareholders in our sample. The first thing to note is that, unlike in the modern era, a very low proportion of capital is provided by companies or investment trusts. Investment trusts in the nineteenth century mainly invested in foreign and colonial debentures rather than in equity.³² However, several investment trusts held sizable equity stakes in a small number of companies in our sample. In terms of the 107 shareholders who are companies, 42 are banks and six are insurance companies. Before it became illegal following the 1887 case of *Trevor vs. Whitworth*, some companies, mainly banks and insurance companies, held shares in their own company so as to make a market in them.³³

<<Insert Table 3>>

Businessmen constitute 17.6 per cent of investors and provided 20.2 per cent of capital. These figures are of a similar order of magnitude as that found for British banks in this era.³⁴ Financiers and financial professionals make up 3.1 per cent of investors and provided 4.3 per cent of capital. Thus, taken together, those with expertise and knowledge of business and investment provided a substantial amount of capital.

We can see from Table 3 that 36.7 per cent of investors are rentiers and that they provide 44.8 per cent of capital. Thus, the archetypal rentier provides a substantial amount of capital for the new businesses which emerge in the second half of the nineteenth century. This accords with the view that landowners and the gentry moved some of their assets into the stock market.³⁵ Notably, studies of bank shareholders, which typically rely on very accurate reporting of socio-occupational status because of the unlimited liability of the banks, reveal that the proportion of gentlemen and esquires in the shareholder constituency was as high as 30 per cent, which is not that far below the 38.6 per cent proportion reported in Table 3.³⁶

Women constitute 20.3 per cent of investors and provide 10.9 per cent of capital. Notably, the mean share capital per investor is a lot lower for women than other categories, which may simply reflect lower wealth or caution on the part of female investors.³⁷ As a point of comparison, Rutterford et al. find that for 1890-9, females constituted 25.3 per cent of the shareholdings and 10.8 per cent of the value in their national shareholding sample, which consists of larger and more prominent companies.³⁸ Thus, it appears that females were just as important in the financing of smaller and less prominent companies as they were in financing large, established firms. Notably, the proportion of widows, spinsters and married women in the 1890-9 Rutterford et al. national shareholding sample is similar to that in Table 3.³⁹

In terms of our middle class groups, in total they constitute 14.5 per cent of shareholders and 11.0 per cent of capital. The proportion of investors who are white collar and professionals is on a par with studies of bank shareholders in this period. Perhaps one surprising finding is that there are a lot of clergymen investing in the stock of these companies. Clergymen, similar to women at the time, were believed to have small incomes and little experience of the financial world.⁴⁰

Notably, Table 3 reveals that the working classes were not well represented in the shareholding constituencies and provided only 0.5 per cent of capital. The mean amount of capital contributed by the two sub-groups of the working class is consistent with the intuition that these investors were the least wealthy of any other occupational groupings.

The final thing which we wish to highlight from Table 3 is that despite their small numbers, many politicians invested in our sample companies and provided 0.6 per cent of capital. After the nobility, politicians have the highest mean capital per investor of any socio-occupational group, perhaps indicating their wealth, but also the degree to which they invested in the equity capital of companies in the last half of the nineteenth century.

Table 4 shows the proportion of capital contributed by socio-occupational status across each decade of the sample period. The first thing to note is that the percentage of capital provided by businessmen (and merchants in particular) and financial professionals fell substantially as the century progressed. This fall could be explained by the fact that over time shares in these new limited companies were no longer perceived as being very risky and therefore they attracted more rentiers but fewer businessmen.

<<Insert Table 4>>

Table 4 also reveals the growth in capital provided by rentiers over the second half of the nineteenth century. The proportion of capital provided by these investors rises from 35.3 per cent in the 1850s/60s to 44.1 per cent in the 1900s. Women only provided 2.9 per cent of capital in the 1850s/60s, but by the 1900s, they provide 19.7 per cent. Thus, the main finding which emerges from Table 4 is that rentiers and women become important as the century progresses, whilst businessmen and financiers become less important.

The proportion of capital provided by the middle and working classes changes little over the century, but it is only with the arrival of low-denomination shares in the 1880s that the unskilled working class begin to invest in equity. It is also worthy to note that

participation of investment trusts in equity investment only really emerges in the 1890s and 1900s.

The decline in importance of businessmen could have resulted from either an absolute reduction in their involvement, or from other groups increasing at a relatively higher rate. To analyse this, Table 5 reports the absolute number of individuals in our sample in each occupational group by decade. The results in Tables 4 and 5 suggest that there was a relative decline in the number of businessmen, particularly merchants, whilst there was also a substantial increase in the number of women.

<<Insert Table 5>>

Since some of the findings in Table 4 may be driven by a cohort effect (i.e., the entry of new companies and industries), in Table 6 we look at the subset of companies where we have more than one ownership census to see if the changes over the century are due to new firms. As can be seen from Table 6, there is a median of 15 years between ownership censuses. There are three changes which are worth commenting upon and which suggest that the findings of Table 4 are not being wholly driven by a cohort effect. First, there is a noticeable increase in the proportion of capital provided by women as well as in the number of women investors. Second, the increase in women investors and capital provided by women is counterbalanced by a fall in the number of and capital provided by businessmen. Third, there is a slight increase in the number of and capital provided by the rentier classes. Notably, the increase in the number of shareholders in the rentier classes is counterbalanced by a fall in the number of shareholders from the middle classes. Overall, these results suggest that the increase of women and fall in businessmen witnessed in Table 4 is not being driven by a cohort effect, whereas the growth in the rentier classes is partially.

<<Insert Table 6>>

Table 7 shows the proportion of capital contributed by socio-occupational groups by industry classification, which was obtained from the *Stock Exchange Yearbook* and *Stock Exchange Official Intelligence*. A lot of the capital in mining companies, which were mainly foreign and colonial mines, was owned by gentlemen. This could be because investing in these mines was attractive to high net-worth, but yet inexperienced, rentiers who were willing to take significant risks in the hope of making large returns.⁴¹ Businessmen contributed relatively little capital to mines and utilities compared to other sectors. Given that utilities were relatively safe investments, the low proportion of capital provided by businessmen may simply reflect their greater risk appetite. Women also avoided mines, but seemed to have preferred utilities and financials. Shares in these latter two sectors were relatively safe investments, which provided a steady dividend income, making them attractive to female rentiers.⁴²

<<Insert Table 7>>

Table 7 also shows the capital invested by different occupational groups in foreign and domestic companies. Businessmen held a greater proportion of capital in domestic companies than they did in foreign: 25.0 versus 10.6 per cent.⁴³ Gentlemen and esquires hold a greater proportion of capital in foreign companies versus domestic: 59.3 vs. 37.5 per cent. This is consistent with Davis and Huttenback's finding that the elite pursued a different investment strategy to other groups and with Cain and Hopkin's gentlemanly capitalists who placed their money overseas.⁴⁴ Women had a slightly greater proportion of capital in domestic companies, which could suggest risk aversion or local bias on the part of females.⁴⁵ Companies and investment trusts mainly invested in foreign companies, which is consistent with the focus of most investment trusts on foreign fixed-income securities. Those in the military also favoured foreign stocks, possibly reflecting experience of international conditions whilst based overseas. Overall, the picture which emerges is one of an investment

dichotomy – gentlemen rentiers invested in foreign companies, whereas businessmen and women rentiers provided finance for indigenous companies.

In 48 company-years in our sample, firms had both preference and ordinary shares. The proportions of capital invested by each socio-occupational group are in Table 8. Given that preference shares paid a fixed rate of dividend and were perceived as being safer, it is unsurprising that women had a higher proportion of capital invested in them than in ordinary shares. This finding supports that of Rutterford et al. who find that female shareholders had a greater propensity to invest in preference rather than ordinary shares.⁴⁶ The reverse is the case for businessmen, which might indicate a greater risk appetite or less of a need for a fixed income. Notably, rentiers from the rentier class had roughly the same proportion of capital in each type of equity security.

<<Insert Table 8>>

In an attempt to see if certain occupational groups have a preference for the equities of companies headquartered and traded in London versus those which were headquartered and traded in the various regional markets,⁴⁷ we obtained information on the location of companies' headquarters from the *Stock Exchange Yearbook* and *Stock Exchange Official Intelligence*. These two sources as well as the *Investor's Monthly Manual* were used to identify the stock markets where shares were chiefly dealt. As some of the companies in our sample were established prior to the publication of the first *Stock Exchange Yearbook* in 1875, we do not have this information for some companies in our sample.

The first thing to note from Table 9 is that shares in some companies were traded on the London Stock Exchange as well as on provincial stock exchanges.⁴⁸ We also see that gentlemen and esquires provided a smaller proportion of capital for regional companies than they did for London-headquartered companies. This finding is consistent with the fact that all foreign companies in our sample listed in London. However, gentlemanly capitalists still

provided 27.2 per cent of capital to regional companies which listed only on provincial stock exchanges.

<<Insert Table 9>>

Women provided a slightly greater proportion of capital to regional companies than they did to London-headquartered companies. Businessmen, particularly manufacturers, provided substantially smaller proportions of capital to London-headquartered compared to regional companies. Thus, these findings suggest something of another investment dichotomy – rentiers invested in London-based companies whereas businessmen provided finance for provincial companies.

5. Clientele effects – hypotheses, empirical strategy and data

We now move on to test various hypotheses about whether certain types of individual had preferences for investing in certain types of shares. In particular, we consider company characteristics (i.e., firm size, firm age, board size and composition, foreign vs domestic firm, and provincial vs London firms) and share characteristics (i.e., marketability, dividends, risk, uncalled capital, and share denomination). We use six broad categories of shareholders: businessmen, rentiers, women, finance, the middle classes, and institutional investors (i.e., companies and investment trusts).

According to Jefferys, during the era covered in this paper, a group of middle-class investors or rentiers emerged who cared only about a stock's marketability, risk, and dividend.⁴⁹ We test this hypothesis by looking at whether middle-class and women investors tended to invest in companies which had marketable shares, were relatively safe, and paid a dividend. In particular, preference shares may have been attractive to these types of investors.⁵⁰ Jefferys also suggests that these investors were put off by high share denominations and uncalled capital.⁵¹ Uncalled capital, whereby a portion of a share's

nominal value was unpaid and could be called up at the discretion of firm managers, would have been unattractive to risk-averse investors such as women and the moderately-wealthy middle classes.⁵² High share denominations were disliked by the same group of investors because they were perceived to be less marketable and made portfolio diversification more difficult. Governance may have played a role in attracting certain types of investors, with larger boards and boards containing members of the nobility assuring inexperienced investors from the middle classes as to the quality of the company.⁵³

In order to test the above hypotheses, we regress company and share characteristics on to the proportion of capital invested by each of these six broad investor groups as well as the proportion of investors from each group. In terms of company characteristics, we examine whether (a) company age; (b) size; (c) being a family firm; (d) being a foreign firm; (e) size and composition of the board determine the proportion of capital invested by a shareholder group or the proportion of the shareholder constituency from a particular shareholder group. In terms of share characteristics, we examine the following determinants: (a) whether a firm is a dividend payer or not; (b) a firm's dividend yield as a rough proxy for risk; (c) marketability of shares as proxied firstly by the number of times over the past year that there was a change in the end-of-month share price, which suggests that trading occurred⁵⁴, and secondly by the number of markets where shares were listed; (d) whether a share was a preference share; (e) the amount of uncalled capital attached to a share; and (f) a share's denomination as measured by its par value. The data sources for and definitions of these variables can be found in Appendix Table 1.

We have four industry dummy variables in our regressions, and control variables for the year in which the ownership census was taken and the total number of shareholders in a firm. As the ownership records we use for our sample all come from companies which by definition ceased to exist, we control for any potential biases by having two variables which

capture the ultimate fate of a firm - whether a firm merged (usually a non-performance reason for a firm's cessation) and whether a firm was wound up by a court (a performance reason for a firm's cessation). We also control for the location of a firm's head office by having three binary variables for London, Lancashire, and Yorkshire, which are the most common locations for headquarters. In addition, we have a control variable which is the distance between the company's headquarters and the chief market where its shares are dealt. This variable acts as a proxy for whether a company is a local firm with shareholders located in the area. The data sources for and definitions of all of these variables can be found in Appendix Table 1.

As some firms had both preference and ordinary shares, we consider each share class as a separate observation in our regression analysis. In other words, a preference share and an ordinary share from the same company enter our regressions individually. Table 10 contains the summary statistics of our dependent and independent variables. In terms of our key independent variables, we note the following. First, the mean company age (*Age*) is 17.58 years and total company par value (*Size*) is £232,600. Second, 29 per cent of the equities in the sample are those of foreign firms, whereas 18 per cent are those of family firms. Third, 84 per cent of equities pay a dividend (*DivPayer*) and the median dividend yield (*DivYield*) of 5.71 per cent is high. Fourth, the median of our *Liquidity* variable is 0.42, which means that the end-of-month share price for the median equity changed 42 per cent of the months over the previous year, suggesting that many of our equities were illiquid. This is further evidenced by the fact that the median of our *NumMarkets* variable is one, which means that the median equity in our sample only traded on one stock market. Fifth, in terms of share denomination (*ShareParValue*) the mean is £10.76 and in terms of uncalled capital (*ShareUncalled*) the average is £13.69. Sixth, as indicated by the statistics for the *Preference* variable, nine per cent of the equities in the sample are preference shares. Seventh, the

average number of directors in a firm was 6.13, and 36 per cent of firms had at least one director who was a member of the nobility.

<<Insert Table 10>>

6. Clientele effects – results

To analyse the determinants of how much capital was contributed by each occupational group, we use Tobit regressions. This is because the dependent variable cannot be less than zero. We have controlled for heteroskedasticity by using robust standard errors. We have also ensured that multicollinearity is not an issue by examining the variance inflation factors of the independent variables. The highest is just 3.19, which is well below the level of 10, where concerns would be raised.

We have also checked the robustness of our results by examining various specifications of the regressions. One approach uses a relatively small number of independent variables, and keeps the number of observations high. The regressions are then repeated using a larger number of variables, but the number of observations drops as we do not have this data for all firms. Despite the inclusion of additional variables, and the change in the size of the sample, the results remain very similar, suggesting that they are robust.

The regression results for the rentiers, women and the middle classes are in Table 11, with the results for businessmen, institutions and financiers in Table 12. In both these tables, the proportions of capital contributed by each of the socio-occupational groups are the dependent variables.

<<Insert Tables 11 and 12>>

We find that rentiers preferred to invest in large firms, and avoided family firms, suggesting that they were not major providers of capital for small, regional enterprises. There is some suggestion of a greater tendency to invest in foreign securities, but this does not remain significant when controlling for the financial characteristics of the assets. This adds

some context to the debate on why so much capital was exported abroad. It was not necessarily a preference for foreign securities, it was just the underlying characteristics of the assets. For example, they invested more in mines, many of which were based abroad.

Women took a different approach to investing, showing a strong pattern of risk-aversion. They focused on older, established companies, which were dividend payers. The investments tended to have a lower dividend yield, again reflecting lower risk, and there was a greater propensity to invest in preference shares. They also avoided companies with high amounts of uncalled capital, limiting their exposure to future calls on capital. They may have been more reluctant to invest in foreign firms, but again the significance disappears when controlling for the financial characteristics of the assets. The marketability of shares does not seem to have been a consideration for women, possibly because they were the stereotypical buy-and-hold investors and thus cared less about stock liquidity.⁵⁵ Therefore, the Jefferys hypothesis that such investors preferred fully-paid and marketable stocks is not fully supported in that although women investors preferred fully-paid shares, they had no preferences with regards to stock marketability.⁵⁶

The middle classes also had a tendency to invest in preference shares, and avoided foreign firms and mines. They also avoided family firms, and focused more on businesses which had more directors, possibly regarding them as having better governance. Perhaps surprisingly, they also tended to invest in smaller companies. In addition, there is no support for Jeffery's contention that women and middle class investors preferred low denomination stocks.

Businessmen acted as the venture capitalists of the era. They invested in young, domestic, family firms, in some cases probably being the founders themselves. They avoided companies with nobility on the board of directors, possibly reflecting their scepticism about how much value they would add to the company.

Financial professionals may be regarded as the speculators of the period. They invested in highly liquid stocks, which they could buy and sell quickly. They invested more in foreign firms, and avoided preference shares, reflecting a greater willingness to embrace risk in the hope of making higher returns.

Institutions also tended to focus on foreign companies, reflecting the initial concentration of investment trusts on foreign and colonial investments⁵⁷. This focus may have been a deliberate marketing technique. As noted already, women, the middle classes and businessmen were reluctant to invest directly in foreign companies. They may have found using an investment trust to be appealing, as they may have believed the trust managers could have used professional expertise to pick the best international investments.

Thus far, we have been looking at the determinants of the proportion of capital invested by various socio-occupational groups. We have also repeated the regressions using the proportion of shareholders in each company, rather than the proportion of capital that they have contributed. This ensures that the results are not being dominated by a small number of blockholders. As shown in Table 13, the results remain similar to the main results. This is not necessarily surprising given that, apart from institutional investors, there is a close correlation between the number of investors and the proportion invested (see Table 3). However, there are a few notable differences. There are significant and positive coefficients suggesting that rentiers were indeed more likely to invest in foreign and London-based firms. Also, if a firm was a dividend payer, fewer from the middle class invested in it.

<<Insert Table 13>>

The overall picture which emerges from our regression analysis is as follows. The rentier classes exhibited a preference for large firms. Women investors tended to focus more on assets which were relatively safe – they shunned young and non-dividend-paying firms as well as mining companies, shares with uncalled capital, and shares with a high dividend

yield. The middle classes had a proclivity for preference shares and domestic firms. Businessmen focused on young, domestic, family firms, suggesting that they invested in what they knew and in what they had information on through their business networks. In contrast, financiers and institutional investors favoured foreign securities.

7. Conclusions

This paper has considered who invested in equities during the substantial expansion of the British equity market in the five decades following the liberalisation of incorporation law in the mid-1850s, with a focus on those firms which had been formed during this period. We find that rentiers were the largest providers of capital, with businessmen, women and the middle classes also investing substantial amounts. Businessmen became less important over time, whilst women contributed greater proportions.

There were significant differences in investment styles between the groups. Rentiers focused on large firms, whereas businessmen invested primarily in young, regional, family firms. Women and the middle classes tended towards low-risk investments, whereas financiers sought highly liquid stocks which they could trade quickly, and investment trusts were more attracted to foreign investments.

These results raise issues about whether managers of firms understood their shareholder clienteles, and pursued particular policies as a result. For example, did they maintain their dividend policies to placate those shareholders who wanted a steady income? Did they issue preference shares or bonds in order to appeal to risk-averse investors, and can this explain the growth in these asset classes over time? Similarly, did the investment trust industry gain popularity because it opened up international investment to clienteles who had traditionally avoided investing directly in foreign stocks? Future research on the growth of

these asset classes may reveal interesting connections between ownership, governance, and financial innovation.

Table 1. Characteristics of sample companies

	Number of Companies in IMM	Sample			Total Par Value (£m)
		Number of Companies	Number of Securities	Number of Shareholdings	
Panel A: Decade of observation					
1850s and 1860s	661	103	107	27,606	13.6
1870	1,079	64	68	24,115	14.0
1880	1,390	130	148	50,521	27.7
1890	1,767	107	142	53,500	25.3
1900	1,441	49	66	33,549	14.7
Total	2,725	453	531	189,291	95.3
Panel B: Industry					
Banks	230	103	109	63,445	28.8
Insurance	142	35	35	12,072	4.2
Finance	262	37	39	18,173	7.2
Iron, Coal & Steel	161	30	38	8,469	11.0
Utility	179	22	25	6,196	3.3
Mines	355	34	39	17,490	10.4
Breweries	135	20	31	7,396	4.9
Other	1,261	172	215	56,050	25.6
Total	2,725	453	531	189,291	95.3
Panel C: Company headquarters					
London	1,393	217	266	105,321	54.3
Lancashire	240	58	70	17,780	13.4
Yorkshire	121	33	35	11,078	5.7
Other	521	95	110	43,973	15.5
Unknown	450	50	50	11,139	6.4
Total	2,725	453	531	189,291	95.3
Panel D: Stock market listings					
London	1,591	240	294	110,732	58.1
Lancashire	291	78	101	32,969	23.0
Yorkshire	125	37	44	18,503	12.2
Other	560	100	119	56,899	21.9
Unknown	432	66	66	18,117	7.6

Sources: Investor's Monthly Manual (IMM) and see text

Notes: Stock market listings sum to more than total number of companies because one company could list on multiple exchanges. IMM data covers the period from 1869 to 1901, so the average number of companies in IMM for 1850s and 1860s only refers to 1869, and for 1900s only refers to 1900 to 1901. IMM data refers to non-railway companies which had issued either ordinary shares and/or preference shares.

Table 2. Number of sample companies by Industry and Decade

	1850s and 1860s	1870s	1880s	1890s	1900s	Total
Banks	17	16	37	21	12	103
Insurance	8	7	9	9	2	35
Finance	11	8	11	4	3	37
Iron, Coal & Steel	4	5	9	9	3	30
Utility	7	2	5	4	4	22
Mines	8	4	9	9	4	34
Breweries	1	4	5	7	3	20
Other	47	18	45	44	18	172
Total	103	64	130	107	49	453

Sources: See text.

Table 3. Occupational composition of capital and shareholders

	Capital	Proportion of capital	Number of investors	Proportion of investors	Mean per investor
	(£)	(%)		(%)	(£)
Business-Manufacturing	5,674,462	6.0	8,616	5.0	622
Business-Merchant	11,700,000	12.3	14,408	8.4	756
Business-Retail	1,858,279	1.9	7,262	4.2	246
Businessmen	19,232,741	20.2	30,286	17.6	596
Company	360,897	0.4	107	0.1	3,289
Investment trust	706,589	0.7	89	0.1	7,858
Institutional	1,067,486	1.1	196	0.1	5,364
Finance-Banker	2,093,118	2.2	1,613	0.9	1,234
Finance-Other Finance	642,596	0.7	1,892	1.1	327
Finance-Stockbroker	1,395,550	1.5	1,833	1.1	699
Financiers	4,131,264	4.3	5,338	3.1	729
Middle-Legal Profession	3,066,400	3.2	6,655	3.9	437
Middle-Clergy	1,577,757	1.7	4,160	2.4	348
Middle-Professional	3,970,541	4.2	7,180	4.2	516
Middle-White Collar	1,907,744	2.0	6,957	4.0	256
Middle Classes	10,522,442	11.0	24,951	14.5	395
Rentier-Esquire	14,600,000	15.3	16,612	9.6	782
Rentier-Gentleman	26,600,000	27.9	46,122	26.7	546
Rentier-Nobility	1,496,633	1.6	598	0.3	2,390
Rentiers	42,696,633	44.8	63,332	36.7	626
Women-Married	1,545,565	1.6	5,647	3.3	244
Women-Spinster	5,015,968	5.3	18,564	10.8	258
Women-Widow	3,867,379	4.1	10,743	6.2	340
Women	10,428,912	10.9	34,954	20.3	281
Working-Skilled	384,080	0.4	1,629	0.9	228
Working-Unskilled	51,160	0.1	512	0.3	98
Working Classes	435,240	0.5	2,141	1.2	197
Politician	536,375	0.6	222	0.1	2,051
Agriculture	1,162,674	1.2	4,960	2.9	230
Military	2,185,713	2.3	3,418	2.0	598
Executor / Trust	1,626,188	1.7	1,143	0.7	1,373
Unknown (males)	1,293,380	1.4	1,531	0.9	785
Total	95,319,047	100.0	172,473	100.0	517
No. of company-years	443	443	419	419	419
No. of securities	512	512	471	471	471

Sources: See text.

Notes: See text for definitions of occupations. Total capital could not be calculated for a small number of companies where par value was not stated. The number of investors is from a slightly smaller sample of company-years because we were unable to match up shareholders in some companies who held both preference and ordinary shares.

Table 4. Percentage of capital contributed by each occupational group, by decade

	1850s and 1860s	1870s	1880s	1890s	1900s
Business-Manufacturing	9.4	4.0	5.9	5.9	4.8
Business-Merchant	26.5	12.7	10.7	9.5	6.3
Business-Retail	2.1	1.6	2.1	1.8	2.1
Businessmen	38.1	18.3	18.8	17.2	13.1
Company	0.7	0.1	0.2	0.3	1.0
Investment trust	0.1	0.0	0.4	1.0	2.2
Institutional	0.8	0.1	0.6	1.2	3.2
Finance-Banker	2.4	5.2	2.0	0.9	1.7
Finance-Other Finance	1.1	0.5	0.7	0.6	0.6
Finance-Stockbroker	3.3	2.0	1.5	0.6	0.7
Financiers	6.9	7.7	4.2	2.1	3.0
Middle-Legal Profession	3.9	2.4	2.9	4.2	2.2
Middle-Clergy	1.1	1.8	1.8	1.7	1.6
Middle-Professional	3.6	3.4	4.7	4.2	4.4
Middle-White Collar	2.9	2.0	2.1	1.6	1.7
Middle Classes	11.5	9.6	11.5	11.7	9.9
Rentier-Esquire	13.1	22.9	18.6	11.8	9.9
Rentier-Gentleman	21.7	27.3	28.4	29.9	30.1
Rentier-Nobility	0.5	1.0	0.9	1.7	4.1
Rentiers	35.3	51.1	47.9	43.5	44.1
Women-Married	0.0	0.2	1.1	2.3	4.1
Women-Spinster	1.8	4.1	4.4	5.8	10.2
Women-Widow	1.1	3.1	4.3	5.1	5.4
Women	2.9	7.4	9.9	13.3	19.7
Working-Skilled	0.5	0.3	0.4	0.5	0.4
Working-Unskilled	0.0	0.0	0.1	0.0	0.1
Working Classes	0.5	0.3	0.4	0.5	0.5
Politician	0.3	0.5	0.8	0.4	0.7
Agriculture	0.5	0.9	1.6	1.2	1.5
Military	2.0	2.6	2.3	2.1	2.8
Executor / Trust	0.2	0.8	0.8	4.7	0.4
Unknown (males)	1.1	0.7	1.3	2.0	1.1
Total	100.0	100.0	100.0	100.0	100.0
No. of company-years	99	63	126	106	49
No. of securities	102	66	140	138	66

Sources: See text

Notes: See text for definitions of occupations. The number of securities differs from the number of company-years because some companies issued both ordinary and preference shares. There are a few married women who appear to own shares in the 1870s, which was before the passage of the Married Women's Property Act of 1882 (45 & 46 Vict. c.75). It is likely that these women had recently become widows or had just been married.

Table 5. Number and percentage of shareholders by each occupational group, by decade

	N	%	N	%	N	%	N	%	N	%
	1850s and 1860s		1870s		1880s		1890s		1900s	
Business-Manufacturing	1,503	5.6	1,008	4.5	2,638	5.8	2,128	4.6	1,339	4.3
Business-Merchant	4,410	16.5	2,035	9.0	3,705	8.1	2,890	6.2	1,368	4.4
Business-Retail	1,111	4.2	842	3.7	2,195	4.8	1,848	4.0	1,266	4.1
Businessmen	7,024	26.2	3,885	17.2	8,538	18.8	6,866	14.8	3,973	12.7
Company	17	0.1	6	0.0	18	0.0	37	0.1	29	0.1
Investment trust	6	0.0	1	0.0	9	0.0	29	0.1	44	0.1
Institutional	23	0.1	7	0.0	27	0.1	66	0.1	73	0.2
Finance-Banker	362	1.4	277	1.2	448	1.0	303	0.7	223	0.7
Finance-Other	356	1.3	192	0.9	539	1.2	488	1.1	317	1.0
Finance-Stockbroker	592	2.2	272	1.2	526	1.2	268	0.6	175	0.6
Financiers	1,310	4.9	741	3.3	1,513	3.3	1,059	2.3	715	2.3
Middle-Legal Profession	1,546	5.8	571	2.5	1,630	3.6	2,272	4.9	636	2.0
Middle-Clergy	490	1.8	559	2.5	1,158	2.5	1,197	2.6	756	2.4
Middle-Professional	1,170	4.4	888	3.9	2,052	4.5	1,834	4.0	1,236	4.0
Middle-White Collar	1,316	4.9	810	3.6	1,997	4.4	1,758	3.8	1,076	3.4
Middle Classes	4,522	16.9	2,828	12.5	6,837	15.0	7,061	15.2	3,704	11.9
Rentier-Esquire	2,357	8.8	4,172	18.5	4,920	10.8	3,112	6.7	2,051	6.6
Rentier-Gentleman	8,460	31.6	6,098	27.0	10,934	24.0	11,742	25.3	8,888	28.5
Rentier-Nobility	58	0.2	85	0.4	141	0.3	197	0.4	117	0.4
Rentiers	10,875	40.6	10,355	45.9	15,995	35.1	15,051	32.4	11,056	35.4
Women-Married	44	0.2	153	0.7	789	1.7	2,584	5.6	2,077	6.7
Women-Spinster	987	3.7	2,082	9.2	4,681	10.3	6,380	13.7	4,434	14.2
Women-Widow	458	1.7	1,026	4.5	2,895	6.4	3,671	7.9	2,693	8.6
Women	1,489	5.6	3,261	14.4	8,365	18.4	12,635	27.2	9,204	29.5
Working-Skilled	233	0.9	158	0.7	476	1.0	391	0.8	371	1.2
Working-Unskilled	57	0.2	18	0.1	263	0.6	108	0.2	66	0.2
Working Classes	290	1.1	176	0.8	739	1.6	499	1.1	437	1.4
Politician	47	0.2	39	0.2	67	0.1	42	0.1	27	0.1
Agriculture	271	1.0	487	2.2	1,601	3.5	1,443	3.1	1,158	3.7
Military	537	2.0	509	2.3	991	2.2	893	1.9	488	1.6
Executor / Trust	72	0.3	104	0.5	311	0.7	438	0.9	218	0.7
Unknown (males)	308	1.2	190	0.8	526	1.2	357	0.8	150	0.5
Total	26,768	100.0	22,582	100.0	45,510	100.0	46,410	100.0	31,203	100.0
No. of company-years	99		63		126		106		49	
No. of securities	102		66		140		138		66	

Sources: See text

Notes: See text for definitions of occupations. The number of securities differs from the number of company-years because some companies issued both ordinary and preference shares. There are a few married women who appear to own shares in the 1870s, which was before the passage of the Married Women's Property Act of 1882 (45 & 46 Vict. c.75). It is likely that these women had recently become widows or had just been married.

Table 6. Change in shareholder constituencies

	Mean	Standard deviation	Minimum	Median	Maximum
<i>Change in capital provided (%)</i>					
Businessmen	-6.9	15.2	-53.0	-5.1	67.9
Institutional investors	0.3	2.6	-9.8	0.0	21.9
Finance	-1.3	6.5	-29.5	-0.2	34.9
Middle class	-1.0	7.7	-26.0	-0.3	26.9
Rentiers	2.2	17.8	-75.1	3.0	48.5
Women	7.0	7.5	-6.8	5.0	38.6
Working class	-0.1	1.3	-7.0	0.0	4.6
<i>Change in number of shareholders (%)</i>					
Businessmen	-6.9	10.1	-35.7	-6.4	36.3
Institutional investors	0.0	0.3	-1.3	0.0	1.8
Finance	-1.2	2.7	-13.5	-0.8	5.0
Middle class	-2.7	7.2	-34.0	-2.1	14.6
Rentiers	1.9	13.5	-37.5	1.1	39.4
Women	9.0	8.0	-6.9	7.5	29.8
Working class	-0.4	1.8	-8.5	0.0	4.5
Years between ownership censuses	15.9	8.9	4.0	15.0	44.0

Sources: See text

Notes: There are 126 equities where we have more than one ownership census. The *Businessmen* category consists of manufacturers, merchants and retailers. *Institutional investors* are companies and investment trusts. *Finance* includes bankers, stockbrokers and other financial professionals. *Middle class* includes clergy, legal professionals, professionals and white-collar employees. *Rentier class* consists of army and naval officers, esquires, gentlemen and members of the nobility. The *Women* category consists of married women, spinsters and widows. The *Working class* category consists of the skilled and unskilled working class. All values refer to the data used in the analysis, meaning after it has been winsorized.

Table 7. Proportion of capital contributed by each occupational group, by industry and foreign vs. domestic

	Breweries	Financial	Mines	Utilities	Other	Foreign	Domestic
Business-Manufacturing	11.4	7.2	0.4	2.2	5.8	0.9	8.5
Business-Merchant	6.6	13.4	5.5	8.8	14.1	9.2	13.9
Business-Retail	1.2	2.9	0.2	1.2	1.5	0.5	2.7
Businessmen	19.2	23.5	6.1	12.3	21.4	10.6	25.0
Company	1.1	0.2	0.7	0.3	0.4	0.8	0.1
Investment trust	5.3	0.1	0.2	1.0	1.0	1.9	0.1
Institutional	6.3	0.2	0.9	1.3	1.5	2.8	0.3
Finance-Banker	1.3	2.9	0.9	1.5	1.9	3.5	1.5
Finance-Other Finance	0.4	0.7	0.3	0.4	0.8	0.4	0.8
Finance-Stockbroker	0.4	1.0	1.1	0.5	2.3	1.4	1.5
Financiers	2.1	4.6	2.3	2.3	5.1	5.3	3.8
Middle-Legal Profession	4.2	3.8	1.4	2.3	3.1	2.0	3.8
Middle-Clergy	0.9	2.1	0.5	1.6	1.6	1.7	1.6
Middle-Professional	4.4	3.6	1.4	4.6	5.5	2.8	4.8
Middle-White Collar	1.1	2.2	1.9	1.9	2.0	1.2	2.4
Middle Classes	10.5	11.6	5.1	10.3	12.2	7.7	12.7
Rentier-Esquire	16.7	18.8	18.9	26.1	9.3	21.6	12.1
Rentier-Gentleman	24.6	20.4	57.1	25.7	28.4	36.2	23.8
Rentier-Nobility	2.1	0.8	1.2	2.0	2.4	1.5	1.6
Rentiers	43.4	40.1	77.1	53.8	40.1	59.3	37.5
Women-Married	1.8	1.3	1.0	2.1	2.1	1.4	1.7
Women-Spinster	3.0	6.2	2.1	6.0	5.4	3.3	6.2
Women-Widow	3.9	5.4	1.6	4.5	3.3	3.0	4.6
Women	8.7	12.8	4.6	12.6	10.8	7.8	12.5
Working-Skilled	0.1	0.5	0.2	0.1	0.4	0.1	0.5
Working-Unskilled	0.1	0.1	0.0	0.0	0.1	0.0	0.1
Working Classes	0.2	0.6	0.2	0.2	0.5	0.2	0.6
Politician	0.0	0.5	0.4	0.2	0.8	1.1	0.3
Agriculture	0.1	2.4	0.1	0.3	0.5	0.2	1.7
Military	5.9	2.3	1.6	3.6	1.9	3.5	1.7
Executor / Trust	0.0	0.7	0.9	2.0	3.2	0.8	2.2
Unknown (males)	3.5	0.7	0.5	1.1	2.0	0.9	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of company-years	20	170	34	21	198	125	318
No. of securities	31	177	39	22	243	148	364

Sources: See text

Notes: See text for definitions of occupations. The number of equities differs from the number of company-years because some companies issued both ordinary and preference shares. A foreign company is defined as such if its headquarters or operations were located outside of the UK.

Table 8. Proportion of capital invested in ordinary vs preference shares, for those companies which had issued both

	Ordinary shares	Preference shares
Business-Manufacturing	10.0	7.9
Business-Merchant	9.1	5.8
Business-Retail	1.7	1.6
Businessmen	20.8	15.3
Company	0.3	0.5
Investment trust	1.5	2.3
Institutional	1.8	2.8
Finance-Banker	2.1	1.5
Finance-Other Finance	0.8	0.4
Finance-Stockbroker	1.9	0.5
Financiers	4.9	2.4
Middle-Legal Profession	3.2	3.1
Middle-Clergy	1.2	1.6
Middle-Professional	4.8	5.4
Middle-White Collar	1.6	2.9
Middle Classes	10.8	13.0
Rentier-Esquire	8.2	11.1
Rentier-Gentleman	35.3	33.2
Rentier-Nobility	1.5	1.0
Rentiers	45.0	45.4
Women-Married	2.7	3.0
Women-Spinster	3.3	4.7
Women-Widow	3.5	5.3
Women	9.5	13.0
Working-Skilled	0.2	0.3
Working-Unskilled	0.0	0.0
Working Classes	0.2	0.3
Politician	0.3	0.4
Agriculture	0.2	0.4
Military	2.6	4.1
Executor / Trust	0.8	0.2
Unknown (male)	3.2	2.8
Total	100.0	100.0
Companies	48	48
Par Value (£)	7,894,606	5,029,581

Sources: See text

Notes: See text for definitions of occupations.

Table 9. Proportion of capital contributed by each occupational group, by location of head office and stock-market listing

Head Office:	London		Regional		
	London only	London and provincial	London only	London and provincial	Provincial only
Stock Exchanges:					
Business-Manufacturing	1.9	2.7	17.1	7.9	11.1
Business-Merchant	8.6	10.3	9.6	23.1	12.5
Business-Retail	1.2	0.6	0.7	2.5	3.9
Businessmen	11.7	13.7	27.3	33.5	27.5
Company	0.3	0.2	0.0	0.0	0.2
Investment trust	1.5	1.6	0.1	0.3	0.0
Institutional	1.9	1.7	0.1	0.3	0.2
Finance-Banker	1.3	2.7	2.2	3.8	1.7
Finance-Other Finance	0.4	0.6	0.1	1.8	0.9
Finance-Stockbroker	1.0	1.7	0.0	3.8	1.3
Financiers	2.7	5.0	2.3	9.3	3.9
Middle-Legal Profession	3.7	2.1	7.0	2.9	3.3
Middle-Clergy	2.1	1.5	1.1	1.3	1.6
Middle-Professional	2.8	6.3	2.4	3.6	5.2
Middle-White Collar	1.5	1.4	0.4	2.0	2.9
Middle Classes	10.2	11.4	10.9	9.8	13.0
Rentier-Esquire	21.3	19.9	18.6	19.0	5.6
Rentier-Gentleman	33.8	32.0	22.5	16.3	18.8
Rentier-Nobility	1.3	1.6	1.7	0.5	2.8
Rentiers	56.5	53.5	42.8	35.8	27.2
Women-Married	1.8	1.7	1.8	1.3	2.3
Women-Spinster	4.5	3.4	9.9	2.5	8.8
Women-Widow	4.0	3.1	1.4	4.4	5.5
Women	10.3	8.1	13.0	8.2	16.7
Working-Skilled	0.2	0.2	0.2	0.3	0.8
Working-Unskilled	0.0	0.0	0.0	0.0	0.1
Working Classes	0.2	0.3	0.2	0.3	0.9
Politician	0.7	1.2	0.1	0.3	0.2
Agriculture	0.4	0.3	0.1	0.4	3.0
Military	3.6	2.3	2.1	0.8	1.1
Executor / Trust	0.9	0.8	0.4	0.6	4.4
Unknown (male)	1.0	1.7	0.7	0.5	2.0
Total	100.0	100.0	100.0	100.0	100.0
No. of company-years	130	36	9	11	126
No. of securities	159	48	11	15	146

Sources: See text

Notes: See text for definitions of occupations. The number of securities differs from the number of company-years because some companies issued both ordinary and preference shares.

Table 10. Descriptive statistics for dependent and independent variables

	N	Mean	Standard deviation	Minimum	Median	Maximum
BusinessProp	523	24.9%	21.1%	0.0%	19.2%	84.4%
InstitutionProp	523	0.7%	3.3%	0.0%	0.0%	25.7%
FinanceProp	523	4.6%	7.1%	0.0%	2.4%	42.2%
RentierProp	523	38.1%	23.1%	0.0%	34.6%	93.8%
MiddleProp	523	13.3%	9.7%	0.1%	11.4%	58.2%
WomenProp	523	10.2%	9.4%	0.0%	7.6%	41.0%
BusinessNum	523	21.8%	17.8%	0.0%	17.8%	76.7%
InstitutionNum	523	0.1%	0.4%	0.0%	0.0%	2.4%
FinanceNum	523	3.8%	3.9%	0.0%	2.8%	25.7%
RentierNum	523	34.1%	21.4%	0.0%	30.6%	89.2%
MiddleNum	523	15.7%	9.2%	1.5%	14.0%	65.2%
WomenNum	523	16.9%	12.1%	0.0%	15.4%	47.2%
Age	471	17.58	17.90	0.00	11.00	72.00
CourtWoundup	523	0.04	0.19	0.00	0.00	1.00
DirectorsNobility	370	0.36	0.48	0.00	0.00	1.00
DivPayer	272	0.84	0.37	0.00	1.00	1.00
DivYield	272	6.03	4.18	0.00	5.71	21.82
FamilyFirm	375	0.18	0.38	0.00	0.00	1.00
ForeignFirm	523	0.29	0.45	0.00	0.00	1.00
HeadLanc	423	0.13	0.34	0.00	0.00	1.00
HeadLondon	423	0.55	0.50	0.00	1.00	1.00
HeadYork	423	0.08	0.27	0.00	0.00	1.00
IndustryBreweries	523	0.06	0.24	0.00	0.00	1.00
IndustryFinancial	523	0.35	0.48	0.00	0.00	1.00
IndustryMines	523	0.07	0.26	0.00	0.00	1.00
IndustryUtility	523	0.04	0.21	0.00	0.00	1.00
Liquidity	267	0.47	0.28	0.00	0.42	1.00
LocalMiles	387	10.97	44.04	0.00	0.00	498.00
Merged	523	0.46	0.50	0.00	0.00	1.00
NumDirectors	370	6.13	2.68	3.00	6.00	23.00
NumMarkets	388	1.33	0.77	1.00	1.00	6.00
NumShareholders	523	421.75	425.24	71.00	294.00	3,184.00
OwnershipDate	523	1883	12.83	1856	1884	1901
Preference	523	0.09	0.29	0.00	0.00	1.00
ShareParValue	512	10.76	10.26	0.55	10.00	50.00
ShareUncalled	510	13.69	23.42	0.00	2.00	97.50
Size (£000s)	511	232.60	268.46	20.00	150.00	1,587.44

Sources: See text

Notes: See text for definitions of occupations. These descriptive statistics are on a per security basis. In other words, if a firm has ordinary and preference shares, they are considered as separate investments. All values refer to the data used in the analysis, meaning after it has been winsorized.

Table 11. Tobit regressions showing determinants of proportion of capital held by rentiers, women and middle classes

	(1) RentierProp	(2) RentierProp	(3) WomenProp	(4) WomenProp	(5) MiddleProp	(6) MiddleProp
Age	0.000 (0.001)	-0.002* (0.001)	0.002*** (0.000)	0.003*** (0.000)	0.000 (0.000)	0.001 (0.000)
Size	0.051*** (0.013)	0.082*** (0.021)	-0.006 (0.006)	-0.015 (0.011)	-0.029*** (0.006)	-0.038*** (0.010)
ForeignFirm	0.136*** (0.026)	0.052 (0.035)	-0.019** (0.008)	-0.019 (0.015)	-0.037*** (0.009)	-0.026* (0.014)
Preference	-0.000 (0.034)	-0.058 (0.043)	0.040** (0.018)	0.071** (0.036)	0.012 (0.015)	0.066** (0.027)
ShareUncalled	0.000 (0.001)	-0.001 (0.001)	-0.001*** (0.000)	-0.001** (0.000)	0.000 (0.000)	0.000 (0.000)
ShareParValue	-0.002 (0.001)	0.002 (0.002)	0.001* (0.001)	0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)
IndustryMines	0.186*** (0.043)	0.147** (0.061)	-0.059*** (0.013)	-0.080*** (0.026)	-0.055*** (0.013)	-0.050* (0.026)
IndustryUtility	0.042 (0.056)	0.050 (0.076)	0.028 (0.017)	-0.005 (0.014)	-0.004 (0.025)	-0.019 (0.026)
IndustryFinancial	-0.058** (0.027)	-0.041 (0.039)	0.020** (0.010)	0.023* (0.014)	-0.028** (0.013)	-0.031* (0.018)
IndustryBreweries	0.007 (0.046)	-0.044 (0.057)	-0.023 (0.017)	-0.018 (0.032)	-0.014 (0.022)	-0.026 (0.023)
NumShareholders	0.000 (0.000)	-0.000 (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	-0.000 (0.000)
OwnershipDate	-0.000 (0.001)	-0.000 (0.002)	0.002*** (0.000)	0.001 (0.001)	0.000 (0.000)	0.001 (0.001)
DivPayer		-0.068 (0.060)		0.070*** (0.022)		-0.023 (0.028)
DivYield		0.007 (0.005)		-0.005** (0.002)		-0.001 (0.002)
Liquidity		-0.095* (0.054)		0.009 (0.022)		0.040 (0.025)
NumMarkets		-0.012 (0.018)		-0.010 (0.007)		0.001 (0.006)
FamilyFirm		-0.089** (0.035)		0.018 (0.018)		-0.031** (0.013)
NumDirectors		-0.011** (0.005)		-0.012*** (0.002)		0.015*** (0.004)
DirectorsNobility		0.009 (0.029)		0.008 (0.012)		0.019 (0.012)
CourtWoundup		0.042 (0.071)		-0.026 (0.036)		0.000 (0.024)
Merged		0.087*** (0.028)		-0.021 (0.014)		-0.026** (0.011)
HeadLondon		0.070* (0.041)		-0.006 (0.021)		0.020 (0.017)
HeadLanc		-0.037 (0.053)		0.051* (0.026)		-0.002 (0.029)
HeadYork		-0.054* (0.029)		-0.033 (0.020)		0.010 (0.016)
LocalMiles		-0.001*** (0.000)		-0.000* (0.000)		0.000** (0.000)
Constant	0.096 (1.971)	0.394 (3.712)	-3.626*** (0.664)	-1.897 (1.628)	0.475 (0.817)	-1.319 (1.497)
Observations	460	179	460	179	460	179

Notes: Robust standard errors are in parentheses and *** p<0.01, ** p<0.05, * p<0.1.

Table 12. Tobit regressions showing determinants of proportion of capital held by businessmen, finance professionals, and institutions

	(1) BusinessProp	(2) BusinessProp	(3) FinanceProp	(4) FinanceProp	(5) InstitutionProp	(6) InstitutionProp
Age	-0.002*** (0.001)	-0.002** (0.001)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.001** (0.001)
Size	-0.022* (0.012)	-0.010 (0.017)	0.009 (0.006)	-0.009 (0.007)	0.022*** (0.008)	-0.002 (0.010)
ForeignFirm	-0.135*** (0.021)	-0.079*** (0.028)	0.002 (0.009)	0.030*** (0.010)	0.058*** (0.015)	0.066*** (0.021)
Preference	-0.037 (0.024)	-0.008 (0.027)	-0.010 (0.011)	-0.015* (0.008)	-0.021 (0.017)	-0.063** (0.027)
ShareUncalled	0.000 (0.001)	0.000 (0.001)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
ShareParValue	0.002** (0.001)	-0.000 (0.001)	-0.001** (0.000)	0.000 (0.001)	-0.002** (0.001)	0.000 (0.001)
IndustryMines	-0.056 (0.036)	0.049 (0.045)	0.004 (0.019)	0.001 (0.024)	-0.040 (0.029)	-0.046 (0.033)
IndustryUtility	-0.033 (0.051)	0.040 (0.048)	-0.032*** (0.012)	-0.032* (0.018)	0.004 (0.023)	-0.016 (0.025)
IndustryFinancial	0.035 (0.026)	0.072** (0.032)	0.015 (0.012)	0.014 (0.011)	-0.007 (0.019)	-0.024 (0.020)
IndustryBreweries	0.015 (0.040)	0.057 (0.058)	-0.039*** (0.015)	0.007 (0.014)	0.048** (0.022)	0.075** (0.031)
NumShareholders	-0.000*** (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
OwnershipDate	-0.002** (0.001)	-0.003* (0.002)	-0.001** (0.000)	-0.000 (0.000)	0.002*** (0.001)	0.004*** (0.001)
DivPayer		-0.055 (0.040)		0.007 (0.017)		0.008 (0.027)
DivYield		0.002 (0.004)		-0.000 (0.001)		-0.000 (0.002)
Liquidity		0.059 (0.048)		0.045*** (0.017)		0.027 (0.028)
NumMarkets		0.004 (0.016)		0.008 (0.005)		0.013 (0.011)
FamilyFirm		0.105*** (0.036)		-0.002 (0.008)		-0.012 (0.027)
NumDirectors		-0.002 (0.004)		-0.001 (0.001)		0.006** (0.003)
DirectorsNobility		-0.043** (0.020)		0.009 (0.009)		-0.016 (0.015)
CourtWoundup		0.089 (0.076)		-0.070*** (0.023)		-0.373 (0.000)
Merged		-0.010 (0.024)		-0.011 (0.008)		-0.016 (0.016)
HeadLondon		-0.079** (0.039)		-0.011 (0.009)		-0.009 (0.026)
HeadLanc		0.060 (0.053)		-0.004 (0.012)		-0.030 (0.027)
HeadYork		0.128*** (0.032)		0.003 (0.010)		-0.008 (0.035)
LocalMiles		0.001** (0.000)		-0.000* (0.000)		0.000* (0.000)
Constant	4.504** (1.742)	5.659* (2.935)	1.512*** (0.575)	0.296 (0.860)	-4.691*** (1.445)	-7.668*** (2.556)
Observations	460	179	460	179	460	179

Notes: Robust standard errors are in parentheses and *** p<0.01, ** p<0.05, * p<0.1.

Table 13. Determinants of proportion of investors in each socio-occupational group

	(1)	(2)	(3)	(4)	(5)	(6)
	RentierNum	WomenNum	MiddleNum	BusinessNum	FinanceNum	InstitutionNum
Age	-0.001 (0.001)	0.002*** (0.000)	0.000 (0.000)	-0.001* (0.001)	-0.000 (0.000)	-0.000** (0.000)
Size	0.085*** (0.019)	-0.011 (0.010)	-0.036*** (0.010)	-0.016 (0.015)	-0.010* (0.006)	0.000 (0.001)
ForeignFirm	0.067** (0.031)	-0.012 (0.017)	-0.022 (0.014)	-0.053** (0.022)	0.009* (0.005)	0.006*** (0.002)
Preference	-0.054* (0.031)	0.060* (0.035)	0.035** (0.017)	-0.005 (0.025)	-0.001 (0.005)	-0.004 (0.004)
ShareUncalled	-0.001** (0.001)	-0.000 (0.000)	0.001 (0.000)	0.000 (0.001)	0.000* (0.000)	-0.000 (0.000)
ShareParValue	0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)	-0.000 (0.001)	0.000 (0.000)	-0.000 (0.000)
IndustryMines	0.115** (0.051)	-0.089*** (0.030)	-0.071*** (0.022)	0.048 (0.043)	0.008 (0.019)	-0.004 (0.004)
IndustryUtility	-0.013 (0.048)	0.007 (0.021)	0.005 (0.033)	0.023 (0.031)	-0.013 (0.009)	0.001 (0.003)
IndustryFinancial	-0.059* (0.036)	0.002 (0.017)	-0.021 (0.019)	0.076*** (0.025)	0.013** (0.006)	-0.001 (0.003)
IndustryBreweries	0.014 (0.042)	-0.063* (0.036)	-0.010 (0.022)	0.066 (0.050)	-0.002 (0.010)	0.007** (0.003)
NumShareholders	-0.000 (0.000)	0.000*** (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000* (0.000)	0.000 (0.000)
OwnershipDate	-0.003 (0.002)	0.004*** (0.001)	0.001 (0.001)	-0.003** (0.001)	0.000 (0.000)	0.001*** (0.000)
DivPayer	-0.061 (0.054)	0.112*** (0.028)	-0.056** (0.025)	-0.043 (0.034)	-0.001 (0.012)	-0.000 (0.003)
DivYield	0.008** (0.004)	-0.008*** (0.002)	0.001 (0.002)	0.001 (0.003)	-0.000 (0.001)	0.000 (0.000)
Liquidity	-0.055 (0.048)	-0.009 (0.028)	0.022 (0.022)	0.051 (0.041)	0.032** (0.014)	0.005 (0.004)
NumMarkets	-0.010 (0.014)	-0.015** (0.007)	0.008 (0.006)	0.000 (0.012)	0.005 (0.003)	0.001 (0.001)
FamilyFirm	-0.074** (0.029)	0.037** (0.018)	-0.003 (0.013)	0.053* (0.028)	0.005 (0.006)	-0.003 (0.003)
NumDirectors	-0.008* (0.004)	-0.016*** (0.003)	0.017*** (0.005)	-0.003 (0.004)	-0.001* (0.001)	0.001* (0.000)
DirectorsNobility	0.011 (0.024)	-0.004 (0.014)	0.019* (0.011)	-0.011 (0.018)	0.006 (0.006)	-0.002 (0.002)
CourtWoundup	0.074 (0.048)	0.020 (0.030)	0.010 (0.038)	-0.010 (0.054)	-0.050*** (0.015)	-0.048 (0.000)
Merged	0.090*** (0.024)	-0.024* (0.013)	-0.036*** (0.011)	-0.014 (0.019)	-0.011** (0.004)	0.001 (0.002)
HeadLondon	0.089*** (0.031)	0.011 (0.022)	0.021 (0.017)	-0.090*** (0.032)	-0.003 (0.006)	0.000 (0.003)
HeadLanc	-0.043 (0.044)	0.026 (0.023)	-0.001 (0.025)	0.072 (0.045)	0.005 (0.008)	-0.002 (0.003)
HeadYork	-0.064** (0.028)	-0.070*** (0.025)	0.037** (0.015)	0.126*** (0.031)	-0.003 (0.006)	-0.001 (0.004)
LocalMiles	-0.001*** (0.000)	-0.000 (0.000)	0.000*** (0.000)	0.000** (0.000)	0.000 (0.000)	0.000*** (0.000)
Constant	4.211 (2.922)	-6.257*** (1.876)	-1.682 (1.399)	5.461** (2.325)	0.075 (0.536)	-1.048*** (0.260)
Observations	179	179	179	179	179	179

Notes: Robust standard errors are in parentheses and *** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 1. Variable definitions and data sources

Variable	Description	Data sources
<u>Shareholder variables (dependent variables)</u>		
BusinessProp	% of capital provided by businessmen	OR
BusinessNum	% of shareholder constituency made up of businessmen	OR
FinanceProp	% of capital provided by financiers and financial professionals	OR
FinanceNum	% of shareholder constituency made up of financiers and financial professionals	OR
InstitutionProp	% of capital provided by institutional shareholders	OR
InstitutionNum	% of shareholder constituency made up of institutional shareholders	OR
MiddleProp	% of capital provided by middle classes	OR
MiddleNum	% of shareholder constituency made up of middle classes	OR
RentierProp	% of capital provided by rentierrentier classes	OR
RentierNum	% of shareholder constituency made up of rentierrentier classes	OR
WomenProp	% of capital provided by women	OR
WomenNum	% of shareholder constituency made up of women	OR
<u>Company characteristics</u>		
Age	Numbers of years since incorporation	AoA, SEY, SEOI, BOI
FamilyFirm	A binary variable = 1 if firm is family firm (i.e., a director's or large shareholder's name is contained in firm name or two directors shares the same surname), 0 otherwise	OR, SEY, SEOI, BOI
ForeignFirm	A binary variable = 1 if firm's headquarters or operations were outside of UK, 0 otherwise	SEY, SEOI, BOI
Size	Natural log of the total par (paid-up) value of the company	OR, SEY, SEOI, BOI
<u>Share characteristics</u>		
DivPayer	A binary variable = 1 if firm is a dividend payer, 0 otherwise	IMM
DivYield	Dividend in year t / price at end of year t-1	IMM
Liquidity	% of months in past year where end-of-month share price has not moved	IMM
NumMarkets	Number of stock markets where shares were listed	IMM, SEOI, BOI
Preference	A binary variable = 1 if firm has preference shares, 0 otherwise	OR
ShareUncalled	Difference between the nominal and par value of a share	OR, AoA, SEOI, BOI
ShareParValue	Par value (£) of each share	OR, AoA, SEOI, BOI
<u>Industry binary variables</u>		
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
<u>Control variables</u>		
CourtWoundUp	A binary variable = 1 if firm was wound up by court order, 0 otherwise	RDC, EG, LG
DirectorsNobility	A binary variable = 1 if firm has a director with a title, 0 otherwise	
HeadLanc	A binary variable which equals 1 if company has a head office in Lancashire, 0 otherwise	AoA, SEY, SEOI, BOI
HeadLondon	A binary variable which equals 1 if company has a head office in London, 0 otherwise	AoA, SEY, SEOI, BOI
HeadYork	A binary variable which equals 1 if company has a head office in York, 0 otherwise	AoA, SEY, SEOI, BOI
LocalMiles	The distance (in miles) between a company's head office and the main market where its shares are traded	AoA, SEY, SEOI, BOI, Google maps
NumShareholders	Total number of shareholders in company	OR
NumDirectors	Number of directors in company	
Merged	A binary variable = 1 if firm merged into another firm, 0 otherwise	RDC, EG, LG
OwnershipDate	Year in which ownership census was taken	OR

Notes: AoA = Articles of Association; BCCA = Burdett's Collection of Company Accounts at the Guildhall Library; BOI = Burdett's Official Intelligence; EG = Edinburgh Gazette; LG = London Gazette; IMM = Investor's Monthly Manual; OR = ownership returns from national archives; RDC = Register of Defunct Companies; SEOI = Stock Exchange Official Intelligence; SEY = Stock Exchange Yearbook.

References

- Acheson, G. G., C. R. Hickson, J. D. Turner, and Q. Ye. "Rule Britannia!: British Stock Market Returns, 1825-1870." *Journal of Economic History* 69, no. 4 (2009): 1107-1137.
- Acheson, G. G., and J. D. Turner. "The Death Blow to Unlimited Liability in Victorian Britain: The City of Glasgow Failure." *Explorations in Economic History* 45, no. 3 (2008): 235-253.
- Acheson, G. G., and J. D. Turner. "Investor Behavior in a Nascent Capital Market: Scottish Bank Shareholders in the Nineteenth Century." *Economic History Review* 64, no. 1 (2011): 188-213.
- Acheson, G. G., G. Campbell, J. D. Turner, and N. Vanteeva. "Corporate Ownership and Control in Victorian Britain." *Economic History Review* 68, no. 3 (2015): 911-936.
- Acheson, G. G., G. Campbell, and J. D. Turner. "Active Controllers or Wealthy Rentiers? Large Shareholders in Victorian Public Companies." *Business History Review* 89, no. 4 (2015): 661- 691.
- Acheson, G. G., G. Campbell, J. D. Turner, and Nadia Vanteeva. "Corporate Ownership, Control and Firm Performance in Victorian Britain." *Journal of Economic History* 76, no.1 (2016): 1-40.
- Allen, D. W. "A Theory of the Pre-Modern British Aristocracy." *Explorations in Economic History* 46, no.3 (2009): 299-313.
- Anderson, B. L. and P. L. Cottrell. "Another Victorian Capital Market: A Study of Banking and Bank Investors on Merseyside." *Economic History Review* 28, no. 4 (1975): 600-615.
- Armstrong, J. "The Rise and Fall of the Company Promoter and the Financing of British industry." in *Capitalism in a Mature Economy: Financial Institutions, Capital Exports and British Industry, 1870-1939*. Edited by J.J. van Helten and Y. Cassis, 115-138. Aldershot: Edward Elgar, 1990.
- Bajtelsmit, V. L., A. Bernasek, and N. Jianakoplos. "Gender Differences in Defined Contribution Pension Decisions." *Financial Services Review* 8, no. 1 (1999): 1–10.
- Barber, B. M. and T. Odean. "Boys will be Boys: Gender, Overconfidence, and Common Stock Investment." *Quarterly Journal of Economics* 116, no.1 (2001): 261-292.
- Best, G. *Mid-Victorian Britain 1851-75*. London: Weidenfield and Nicholson, 1971.
- Borghans, L., J. J. Heckman, B. H. H. Golsteyn, and H. Meijers. "Gender Differences in Risk Aversion and Ambiguity Aversion." *Journal of the European Economic Association* 7, no 2-3 (2009): 649-58.
- Broadbridge, S. A. "The Sources of Railway Share Capital." in *Railways in the Victorian Economy: Studies in Finance and Economic Growth*, edited by M. C. Reed, 184-211. New York: Augustus M. Kelley, 1968.

- Cain, P. J. and A. G. Hopkins. "Gentlemanly Capitalism and British Expansion Overseas II: New Imperialism, 1850-1945." *Economic History Review* 40, no. 1 (1987): 1-26.
- Campbell, G. and J. D. Turner. "Substitutes for Legal Protection: Corporate Governance and Dividends in Victorian Britain." *Economic History Review* 64, no. 2 (2011): 571-597.
- Campbell, G. and J. D. Turner. "Dispelling the Myth of the Naive Investor During the Railway "Mania" Boom in Britain, 1845-46." *Business History Review* 86, no. 1 (2012): 3-41.
- Chabot, B. R. and C. J. Kurz. "That's Where the Money Was: Foreign Bias and English Investment Abroad, 1866-1907." *Economic Journal* 120, no. 547 (2010): 1056-1079.
- Chambers, D. and R. Esteves. "The First Global Emerging Markets Investor: Foreign & Colonial Investment Trust 1880-1913." *Explorations in Economic History* 52, no. 1 (2014): 1-21.
- Clemens, M. A. and J. G. Williamson. "Wealth Bias in the First Global Capital Market Boom, 1870-1913." *The Economic Journal* 114, no. 495 (2004): 304-337.
- Cottrell, P. L. *British Overseas Investment in the Nineteenth Century*. London: The Macmillan Press Ltd, 1975.
- Cottrell, P. L. *Industrial Finance 1830-1914: The Finance and Organization of English Manufacturing Industry*. London: Methuen, 1980.
- Coyle, C. and J. D. Turner. "Law, Politics, and Financial Development: The Great Reversal of the UK Corporate Debt Market." *Journal of Economic History* 73, no. 3 (2013): 810-846.
- Davis, L. E. and R. A. Huttenback. *Mammon and the Pursuit of Empire: The Economics of British Imperialism*. Cambridge: Cambridge University Press, 1988.
- Doe, H. "Waiting for Her Ship to Come In? The Female Investor in Nineteenth-Century Sailing Vessels." *Economic History Review* 63, no. 1 (2010): 85-106.
- Dwyer, P. D., J. H. Gilkeson, and J. A. List. "Gender Differences in Revealed Risk Taking: Evidence From Mutual Fund Investors." *Economics Letters* 76, no. 2 (2002): 151-158.
- Edelstein, M. *Overseas Investment in the Age of High Imperialism: The United Kingdom, 1850-1914*. New York: Columbia University Press, 1982.
- Edlinger, C., M. Merli, and A. Parent. "An Optimal World Portfolio on the Eve of World War I: Was There a Bias to Investing in the New World Rather Than in Europe?" *The Journal of Economic History* 73, no. 2 (2013): 498-530.
- Goetzmann, W. N. and A. D. Ukhov. "British Investment Overseas 1870-1913: A Modern Portfolio Theory Approach." *Review of Finance* 10, no. 2 (2006): 261-300.

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

Green, D. R. and A. Owens. "Gentlewomanly Capitalism? Spinsters, Widows and Wealth Holding in England Wales." *Economic History Review* 56, no. 3 (2003): 510-536.

Grossman, R. S. "New Indices of British Equity Prices, 1870-1913." *Journal of Economic History* 62, no. 1 (2002): 121-146.

Grossman, R. S. "Bloody Foreigners! Overseas Equity on the London Stock Exchange, 1869-1928." *Economic History Review* 68, no. 2 (2015): 471-521.

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

Jefferys, J. B. "The Denomination and Character of Shares, 1855-1885." *Economic History Review* 16, no. 1 (1946): 45-55.

Jianakopoulos, N. A. and A. Bernasek. "Are Women More Risk Averse?" *Economic Inquiry* 36, no. 4 (1998): 620-630.

Kennedy, W. P. *Industrial Structure, Capital Markets and the Origins of British Economic Decline*. Cambridge: Cambridge University Press, 1987.

Killick, J. R. and W. A. Thomas. "The Provincial Stock Exchanges." *Economic History Review* 23, no. 1 (1970): 96-111.

Maltby, J. and J. Rutterford, "Women and Wealth in Fiction in the Long Nineteenth Century 1800-1914." in *Women and their money 1700-1950*, edited by A. Laurence, J. Maltby and J. Rutterford, 151-164. London: Routledge, 2009.

McDonald, D. G. *The Rule in Trevor v. Whitworth: a United States Perspective*. Harvard Law School LLM Thesis, 1980.

Michie, R. C. *Money, Mania and Markets: Investment, Company Formation and the Stock Exchange in Nineteenth-Century Scotland*. Edinburgh: John Donald Publishers Ltd., 1981.

Michie, R. C. "The Finance of Innovation in Late Victorian and Edwardian Britain." *Journal of European Economic History* 17, no. 3 (1988): 491-530.

Michie, R. C. *The London Stock Exchange*. Oxford: Oxford University Press, 1999.

Michie, R. C. *Guilty money: The City of London in Victorian and Edwardian Culture, 1815-1914*. London: Pickering and Chatto, 2009.

Michie, R. C. "Gamblers, Fools, Victims, or Wizards? The British Investor in the Public Mind, 1850-1930." in *Men, Women, and Money: Perspectives on Gender, Wealth, and Investment 1850-1930*, edited by D. R. Green, A. Owens, J. Maltby and J. Rutterford, 156-183. Oxford: Oxford University Press, 2011.

- Newton, L. *The Finance of Manufacturing Industry in the Sheffield Area c.1850-1885*. PhD Thesis University of Leicester, 1993.
- Newton, L. and P. L. Cottrell. "Female Investors in the First English and Welsh Commercial Joint-Stock Banks." In *Men, Women, and Money: Perspectives on Gender, Wealth, and Investment 1850-1930*, edited by D. R. Green, A. Owens, J. Maltby and J. Rutterford, 115-133. Oxford: Oxford University Press, 2011.
- Newton, L. "The Birth of Joint-Stock Banking: England and New England Compared." *Business History Review* 84, no. 1 (2010): 27-52.
- O'Rourke, K. H. and J. G. Williamson. *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy* (Cambridge: MIT Press, 1999).
- Pollard, S. "Capital Exports, 1870-1914: Harmful or Beneficial?" *Economic History Review* 38, no. 4 (1985): 489-514.
- Pollins, H. "The Finances of the Liverpool and Manchester Railway." *Economic History Review* 5, no. 1 (1952): 90-97.
- Preda, A. "The Rise of the Popular Investor: Financial Knowledge and Investing in England and France, 1840-1880." *The Sociological Quarterly* 42, no. 2 (2001): 205-232.
- Reed, M. C. "Railways and the Growth of the Capital Market." in *Railways in the Victorian Economy: Studies in Finance and Economic Growth*, edited by M. C. Reed, 162-183. New York: Augustus M. Kelley, 1968.
- Reed, M. C. *Investment in Railways in Britain 1820-1844: A Study in the Development of the Capital Market*. Oxford: Clarendon Press, 1975.
- Rutterford, J. "Learning From One Another's Mistakes: Investment Trust in the UK and the US, 1868-1940." *Financial History Review* 16, no. 2 (2009): 157-181.
- Rutterford, J. and J. Maltby. "The Widow, the Clergyman and the Reckless: Women Investors in England 1830-1914." *Feminist Economics* 12, no. 1-2 (2006): 111-138.
- Rutterford, J. and J. Maltby. "The Nesting Instinct: Women and Investment Risk in a Historical Context." *Accounting History* 12, no. 3 (2007): 305-27.
- Rutterford, J., D. R. Green, J. Maltby, and A. Owens. "Who Comprised the Nation of Shareholders? Gender and Investment in Great Britain, c.1870-1935." *Economic History Review* 64, no. 1 (2011): 157-187.
- Schubert, R., M. Brown, M. Gysler, and H. Wolfgang. "Financial Decision-Making: Are Women Really More Risk-Averse?" *American Economic Review* 89, no. 2 (1999): 381-385.
- Shannon, H. "The Limited Companies of 1863-1883." *Economic History Review* 4, no. 3 (1933): 290-316.

Taylor, J. *Creating Capitalism: Joint-Stock Enterprise in British Politics and Culture, 1800-1870*. London: Royal Historical Society, 2006.

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

Thompson, F. M. L. *English Landed Society in the Nineteenth Century*. London: Routledge and Kegan Paul, 1963.

Turner, J. D. "Wider Share Ownership?: Investors in English Bank Shares in the Nineteenth Century." *Economic History Review* 62, no. S1 (2009): 167-192.

Turner, J. D., Y. Qing, and W. Zhan. "Why Do Firms Pay Dividends?: Evidence From an Early and Unregulated Capital Market." *Review of Finance* 17, no. 5 (2013): 1787-1826.

Endnotes

¹ On the growth of the equity market, see Michie, *London Stock Exchange*, 88-89. See Michie, *Money, Mania and Markets* and Thomas, *The Provincial Stock Exchanges* on the formation and growth of Scottish and provincial stock exchanges in the nineteenth century. Acheson et al., "Rule Britannia," show that there was a substantial rise in the number of common equities traded on the London market after the liberalisation of company law in 1855/6 and 1862. Between 1862 and 1866, the number of listed common equity securities increased by over 30 per cent. Grossman, "New Indices," reveals that the number of common equities quoted in the *Investor's Monthly Manual* doubles between 1870 and 1900.

² See Edelstein, *Overseas Investment*; Pollard, "Capital Exports"; Kennedy, *Industrial Structure*; O'Rourke and Williamson, *Globalization and History*, chap. 12; Goetzmann and Ukhov, "British Overseas Investment"; Chabot and Kurz, "That's Where the Money Was"; Grossman, "Bloody Foreigners". Davis and Huttenback, *Mammon and the Pursuit of Empire*, Edlinger et al., "Optimal World Portfolio", Clemens and Williamson "Wealth Bias".

³ Rutterford et al. "Who Comprised," have considered whether such factors may have influenced female investors.

⁴ The 1855 Limited Liability Act (18 & 19 Vict., c.113) was repealed, but re-enacted in 1856 (19 & 20 Vict., c.47). Limited liability was introduced in banking in 1858 (21 & 22 Vict. c.91). Finally, the 1862 Companies Act (25 & 26 Vict. c.89) was a consolidation of existing pieces of incorporation legislation. See Cottrell, *Industrial Finance*; Taylor, *Creating Capitalism* and Shannon, "The Limited Companies" on the liberalisation of incorporation law and the subsequent growth in company formation.

⁵ Davis and Huttenback, *Mammon and the Pursuit of Empire* provide an analysis of 79,994 investors in both domestic and foreign stock between 1883 and 1907. However, their analysis is only of very young firms and is mainly focused on foreign and colonial companies. Rutterford et al., “Who Comprised,” analysed a sample of 33,078 shareholdings between 1870 and 1935. However, their study focuses on female investors and on the period after 1900, with only 6,127 shareholders in their 1870-1899 sub-sample.

⁶ Davis and Huttenback, *Mammon and the Pursuit of Empire*, 197-198, note that their study was constrained by data availability and they would have ideally measured the importance of each class of security to each group of holders by taking into account aspects such as dividend pay-out.

⁷ Jefferys, *Business Organisation*, 209; Jefferys, “The Denomination”.

⁸ See Davis and Huttenback, *Mammon and the Pursuit of Empire*; Armstrong, “The Rise and Fall of the Company Promoter,” 119-121; and Cottrell, *British Overseas Investment*, 28. On the yield of foreign and colonial equities, see Grossman, “Bloody Foreigners”.

⁹ Rutterford et al., “Who Comprised,” 174.

¹⁰ Coyle and Turner, “Great Reversal”.

¹¹ Broadbridge, “Sources of Railway Share Capital”; Campbell and Turner, “Dispelling the Myth”; Pollins, “Finances”; Reed, “Railways”, *Investment in Railways*.

¹² Anderson and Cottrell, “Capital Market”; Newton and Cottrell, “Female Investors”; Turner, “Wider Share Ownership”; Acheson and Turner, “Investor Behaviour”.

¹³ Acheson and Turner, “Investor Behaviour”; Newton, “The Birth of Joint-Stock Banking”.

¹⁴ Doe, “Waiting for Her Ship to Come In”; Green and Owens, “Gentlewomanly Capitalism”; Newton and Cottrell, “Female Investors”; Maltby and Rutterford, “Women and Wealth”; Rutterford and Maltby, “The Nesting Instinct,” and “The Widow, the Clergyman and the Reckless”; Rutterford et al., “Who Comprised”.

¹⁵ Davis and Huttenback, *Mammon and the Pursuit of Empire*, 195-220.

¹⁶ Michie, *Guilty Money*; Michie, “Gamblers, Fools, Victims or Wizards?”; Maltby and Rutterford, “Women and Wealth”; Preda, “Rise of the Popular Investor”.

¹⁷ Acheson et al., “Corporate Ownership and Control”, “Corporate Ownership”, “Active Controllers”.

¹⁸ Michie, *London Stock Exchange*, 88-9.

¹⁹ *Ibid.*, 88-9.

²⁰ Coyle and Turner, “Great Reversal”.

²¹ Green and Owens, “Gentlewomanly Capitalism?”

²² Campbell and Turner, “Dispelling the Myth,” 38.

²³ Rutterford et al., “Who Comprised,” 178-9.

²⁴ The archivists at the National Archives and National Archives of Scotland destroyed most annual ownership records and only preserved a sample. Our analysis suggests that for firms which have annual ownership records preserved, one year out of every ten have been preserved in the archives.

²⁵ Our sample is larger and much broader than that of Davis and Huttenback, *Mammon and the Pursuit of Empire*, 196, because (a) our sample runs from the late 1850s up to 1902, whereas their sample runs from 1883 to 1907; (b) the focus of their sample is foreign and colonial companies, whereas our focus is much more balanced, with the result that we have many more domestic firms in our sample than they do; (c) their sample with 79,944 shareholders is less than half the size of ours; (d) unlike Davis and Huttenback, we have multiple observations for some companies.

²⁶ We found information on 5,134 individuals who had been left uncategorised during the first stage of data entry. In 58 per cent of cases, we identified a male occupation which had been deemed illegible at phase one of data input. In another 15 per cent of cases, a title such as Major, M.P., Dr or Reverend was appended to the shareholder’s name. A further 15 per cent were shareholdings held by an executor, trust, administrator or a company. The remaining 12 per cent of ‘missing’ shareholders were female and had not been classified as a spinster, widow or married woman in the original ownership files.

²⁷ Allen, “A Theory of the Pre-Modern British Aristocracy,” 301.

²⁸ Best, *Mid-Victorian Britain*, 268-76.

²⁹ Parliamentary Papers, “Census of England and Wales. 1891. Ages, conditions as to marriage, occupations, birth-places, and infirmities. Vol. III.,” (1893), 5.

³⁰ Parliamentary Papers, “Occupations of the people (England and Wales) enumerated in 1871, 1881, and 1891,” (1895).

³¹ Parliamentary Papers, “Census of England and Wales. 1891. Ages, conditions as to marriage, occupations, birth-places, and infirmities. Vol III.,” (1893), 24.

³² Rutterford, “Learning From One Another’s Mistakes”.

³³ On this court ruling, see McDonald, *The Rule in Trevor v. Whitworth*.

³⁴ Acheson and Turner, “Investor Behaviour”, “Death Blow to Unlimited Liability”; Turner, “Wider Share Ownership”.

³⁵ Armstrong, “The Rise and Fall of the Company Promoter,” 121; Thompson, *English Landed Society*, 307.

³⁶Acheson and Turner, “Investor Behaviour”, “Death Blow to Unlimited Liability”; Turner, “Wider Share Ownership”.

³⁷ Turner, “Wider Share Ownership”.

³⁸ Rutterford et al., “Who Comprised,” 169.

³⁹ Rutterford et al., “Who Comprised,” 171.

⁴⁰ Rutterford and Maltby, “The Widow, the Clergyman and the Reckless,” 120.

⁴¹ Grossman, “Bloody Foreigners,” 485-6, finds that foreign mining companies produced high returns, but were very risky securities.

⁴² See Michie, *Money, Mania and Markets*, 248-9, for a discussion on the speculative nature of mining stocks at this time and the security of stocks of utilities, banks and insurance companies. Grossman, “Bloody Foreigners,” 485-6 concurs with this view.

⁴³ Similar to Davis and Huttenback, *Mammon and the Pursuit of Empire*, 200, we find that merchants were more likely to invest in foreign and colonial companies than other businessmen.

⁴⁴ Davis and Huttenback, *Mammon and the Pursuit of Empire*, 200-202; Cain and Hopkins, “Gentlemanly Capitalists,” 3.

⁴⁵ Grossman, “Bloody Foreigners,” 485, notes that foreign equities were more risky than domestic equities in this era.

⁴⁶ Rutterford et al., “Who Comprised,” 174.

⁴⁷ For the rise of the regional stock exchanges, see Killick and Thomas, “Provincial Stock Exchanges”.

⁴⁸ On this trend see Newton, *The Finance of Manufacturing*, 181.

⁴⁹ Jefferys, *Business Organisation*, 209.

⁵⁰ Jefferys, *Business Organisation*, 220.

⁵¹ Jefferys, “The Denomination”.

⁵² See Acheson and Turner, “Investor Behaviour,” 198-199.

⁵³ Women’s preference for safer investments may stem from their greater risk aversion. Economists have found that women exhibit greater risk aversion than men across a variety of activities and the reasons for this may be psychological, biological, social or some combination of all three (see Borghans et al., “Gender Differences”). In particular, several studies have found that women exhibit greater financial risk aversion than men (Bajtelsmit et al., “Gender Differences”; Dwyer et al., “Gender Differences”; Jianakoplos, “Are Women More Risk Averse?"). However, Schubert et al., “Financial Decision-Making,” provide experimental evidence which

suggests that women are not more risk averse when it comes to financial decision-making. For an historical perspective on risk and women, see Acheson and Turner, “Investor Behaviour”; Rutterford and Maltby, “The Nesting Instinct”.

⁵⁴ Bid-ask spreads are usually the preferred measure for assessing the liquidity of a stock, but these are not available for most of our companies. To ensure that our measure performs well during our period we have taken all of the securities for which bid-ask spreads are reported in *The Times* in 1870, and calculated the size of the bid-ask spread as a proportion of the mid-price. We have then calculated our liquidity measure for each of these companies. This gives us 296 observations. We find a highly significant relationship between the bid-ask spread measure and our measure, with a t-statistic of -6.88, and a correlation of -0.39. The negative sign indicates that a higher bid-ask spread is associated with a lower likelihood to trade using our measure. Although this analysis is based on a different sample of companies than is used in this paper, it is suggestive that our liquidity measure is robust.

⁵⁵ Barber and Odean, “Boys will be Boys,” find that in the 1990s men trade shares 45 per cent more than women.

⁵⁶ Jefferys, *Business Organisation*, 209; Jefferys, “The Denomination”.

⁵⁷ Chambers and Esteves, “First Global”.