

Canny Investors?: The Investment Behaviour of Scottish Bank Shareholders in the Nineteenth Century

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Abstract

This article examines investor behaviour in a nascent capital market in an attempt to understand investment decision-making in the nineteenth century. Using extensive archival records, we examine the behaviour of investors in nineteenth-century Scottish banks. We find that female investors were initially not major investors in the joint-stock banks, but once these banks developed a good track record of stability and high dividends, these risk-averse investors became a major constituency. We also find that businesspeople were an important constituency in the early days of the joint-stock banks, but played a minor role by the late 1870s. We argue that this simply reflects changes in banks' lending policies. Investors in Scottish banks typically exhibited a bias towards banks located in the areas where they resided. Finally, and somewhat surprisingly, we find that numerous investors held shares in more than one Scottish bank.

In the nineteenth century, there was a revolution in the methods of obtaining capital for industry – business enterprises were increasingly financed with other people’s money.¹ In particular, the establishment of railway and banking companies resulted in many middle-class investors increasingly participating in the equity market for the first time.² As a result of the rapid growth of capital markets in the nineteenth century, investors faced many new investment opportunities.³ How such investment decisions were made is an important part of understanding how capital markets developed in the nineteenth century. Traditionally, financial economists assume that investment choice is determined by the expected rate of return and risk of each security.⁴ However, the increasing importance of behavioural and asymmetric information models suggests that other factors may also play a role in investor decision-making.⁵

This article examines investor behaviour in a nascent capital market in an attempt to understand better the motivation behind investment choice in the nineteenth century. We focus on investment in Scottish bank shares, and using available shareholder records, we examine investor characteristics in an attempt to understand their behaviour. Scottish banking lends itself to such an analysis for several reasons. Firstly, Scottish banks were relatively large companies, with many having over 1,000 stockholders. Secondly, Scottish banks were one of the most important investment outlets for Scottish investors. Thirdly, two types of banks existed in Scotland – three public banks which had limited liability and several joint-stock banks which had

¹ Jefferys, *Business organisation*, pp.380-381.

² Anderson and Cottrell, ‘Capital market’; Broadbridge, ‘Railway share capital’; Reed, *Investment in railways*.

³ Anderson and Cottrell, ‘Capital market’, p.601.

⁴ Bachrach and Galai, ‘Risk and return’, p.421.

⁵ Coval and Moskowitz, ‘Home bias’; Gaspar and Massa, ‘Local ownership’; Dwyer *et al.*, ‘Gender differences’.

unlimited liability. These differences will be utilised to help us analyse investment behaviour.

The first question addressed in this paper is whether the sophistication and risk aversion of investors was reflected in the type bank stock they invested in. For example, one would expect risk-averse individuals such as widows and spinsters to be less likely to invest in stock which carried unlimited liability.⁶ Our findings suggest that risk-averse investors initially steered clear of the newly-formed joint-stock banks, which obviously had no track record. However, once these banks became established, such investors became more likely to invest in these concerns. Initially, businessmen were an important shareholder constituency. Although this could be explained by them being more risk-loving, our evidence suggests that their participation may have been because they gained greater access to short-term debt finance by becoming shareholders. Supporting this conclusion is that over time there is a decline in businessmen's domination of joint-stock constituencies as bank lending became more sophisticated and less reliant on collateral.

We also examine the geographical bias in an individual's investment choice. Analysis of modern financial markets suggests that investors tend to invest in companies which are in close geographical proximity due to asymmetric information problems or cognitive bias.⁷ Our evidence, based on *circa* 14,000 shareholders, suggests that investors in Scottish banks demonstrate a local bias in that they chiefly came from areas served by the banks' branch networks.

Finally, and somewhat surprisingly, we find that numerous investors held shares in more than one Scottish bank, when one would typically expect individuals to

⁶ Evans and Quigley, 'Shareholder liability', p.500; Easterbrook and Fischell, 'Limited liability', pp.89-90.

⁷ Coval and Moskowitz, 'Home bias', p.2046.

diversify across industries.⁸ However, what makes this even more surprising is that many of the banks had unlimited liability, which one would expect to discourage multiple holdings.⁹

This paper is structured in the following way. The next section investigates the supply of financial capital in nineteenth-century Scotland. Section three discusses some of the main determinants of the investment decision. The following section examines the change in investor risk preferences throughout the nineteenth century. Section five analyses the relationship between investor preference and local bias. The penultimate section examines the extent to which investors diversified risk. Finally, section seven summarises the findings and makes some brief conclusions.

II. The supply of financial capital

Investment opportunities

From early in the eighteenth century, investors in Scotland had a variety of investment choice as the nature of Scottish law meant that partnerships enjoyed the privilege of having a separate legal personality, which enabled a separation of ownership from control – a prerequisite for passive investment. Incorporation was still only attainable under a special act of Parliament. However, in 1844, the Joint-Stock Companies Registration and Regulation Act¹⁰ was enacted, and it bestowed corporate privileges upon the firm without the need for special private acts of Parliament.¹¹ Incorporation could now be obtained merely through registration; the entry barrier to the corporate form of business organisation had finally been eliminated.¹² Nevertheless, the

⁸ Markowitz, 'Portfolio selection', p.78.

⁹ Hickson and Turner, 'Genesis', p.181.

¹⁰ 9 & 10 Vict., c.110.

¹¹ Todd, *Joint stock companies*, p.47.

¹² Harris, *English law*, pp.283-287.

freedom of companies to limit their liability without prior Parliamentary approval had to wait until the Limited Liability Acts of 1855 and 1856.¹³

It was suggested by contemporaries that the general limitation of liability would allow men “to indulge their spirit of adventure without endangering their fortune”.¹⁴ Whether this is true is uncertain, but as the century progressed, it is clear that it was increasingly easier to set up large joint-stock companies with transferable shares, and investment choice grew dramatically. For example, in December 1844, 29 Scottish stocks were quoted in the Scottish section of the *Course of the Exchange*, but by December 1878, 95 Scottish stocks were listed in the *Investors’ Monthly Manual*. The value of paid-up capital of Scottish securities also grew in this period; growing from £18.6m in 1840 to £126.9m in 1883.¹⁵

The secondary market

Companies with transferable shares had existed in Scotland since the seventeenth-century.¹⁶ During the eighteenth century, the majority of share transfers were conducted privately between the two individuals involved or by public auction.¹⁷ As the number of joint-stock companies and the dealing of stock increased (especially during the railway mania), so did the need for intermediaries that specialised in stock dealing. Consequently, three stock exchanges were formed in Scotland during 1844/45 – Glasgow, Edinburgh and Aberdeen.¹⁸ Table 1 details the growth of stock exchanges in Scotland’s four major cities. One can see from Table 1 that after an initial lull, the stock exchanges grew rapidly from the 1860s onwards.

¹³ 18 & 19 Vict. c.133; 19 & 20 Vict. c.47.

¹⁴ Lord Curriehill, *Report of 1854* p.18 cited in Hunt, *Business corporation*, p.126.

¹⁵ Michie, ‘London stock exchange’, p.63.

¹⁶ Michie, ‘Transfer of shares’, p.153.

¹⁷ Michie, ‘Transfer of shares’, pp.153-155.

¹⁸ Michie, *Markets*, pp. 103-4.

INSERT TABLE 1

The regional development of the Scottish stock market during the nineteenth-century went hand-in-hand with technological developments that eased communications between the various markets in Britain. The advances in the telecommunications industry during the second half of the nineteenth century transformed the stock market.¹⁹ Not only did these new technologies speed communication and increase choice across markets, it improved the parity of stock prices between markets, reducing the risks associated with buying in one market and selling on another.²⁰

The supply of bank stock

From Table 2 we can see that by 1746, three Scottish banking companies had been established: Bank of Scotland, Royal Bank of Scotland, and the British Linen Company. These banks were referred to as the 'public banks' because they were corporate entities with transferable shares and limited liability.²¹ In the 1740s, provincial banks developed to meet the growing need for banking services outside of Edinburgh, and they became the backbone of banking in the provinces into the nineteenth century. In 1810 the Commercial Banking Company, the first large-scale joint-stock bank, was established. It was followed in 1825 by the formation of the Aberdeen Town and Country Bank and the National Bank of Scotland. After the joint-stock banking legislation of 1826 when the legal uncertainty surrounding the establishment of these companies was eventually cleared up,²² the joint-stock banks

¹⁹ Michie, 'London stock exchange', p.66.

²⁰ Michie, 'London stock exchange', p.71.

²¹ Munn, *Scottish provincial*, p. 2.

²² 7 Geo. IV, c.67

quickly became a major force in the market. As can be seen from Table 2, these new joint-stock banks had extensive shareholder lists in the 1840s.²³

INSERT TABLE 2

As stockholders of the joint-stock banks were subject to unlimited liability, these banks had to deal with a demand to transfer stock and liquidate investments whilst maintaining an aggregate shareholder quality which would enable the bank to cover its public liabilities in the vent of bankruptcy. Notably, the deeds and contracts of Scottish joint-stock banks permitted shareholders to transfer or trade their shares provided that the prior approbation of the board of directors had been received.²⁴ This would have prevented shareholders transferring their stock to unsuitable individuals.²⁵

III. Driving factors behind the investment decision

Risk aversion and information

Investing in equity securities carries an intrinsic degree of risk. Under limited shareholder liability, an individual bears the risk associated with a potential drop in the value of their investment. However, investing in a firm with unlimited shareholder liability adds to this risk as shareholders are fully liable for any debt the company amasses.²⁶

Traditionally, merchants and other businessmen have been viewed as being in a better position to access information in the market through business networks.²⁷ They had superior information in contrast to other investors, which would have given

²³ Although there had never been any limitation on the number of individuals who could form a banking company in Scotland, only four of the provincial banks had more than 100 partners. See Munn, *Scottish provincial*, p. 5.

²⁴ Acheson and Turner, 'Secondary market', p.8.

²⁵ Hickson and Turner, 'Bagehot hypothesis'.

²⁶ Hickson and Turner, 'Shareholder liability regimes', pp.113-114.

²⁷ Rutterford and Maltby, "Women investors in England," p.123.

them a comparative advantage over less-informed individuals when making an investment choice. Furthermore, by their very nature businessmen are more risk loving. These reasons suggest that such individuals may have been the natural investor in early unlimited joint-stock banks.

If businessmen are at one extreme in terms of risk preference and information, female investors in the nineteenth century can be assumed to be at the opposite end of the spectrum. Indeed, recent research has suggested that women take less risk than men when making financial investments.²⁸ In the nineteenth century, female investors often only increased in numbers once a company had proven itself over time.²⁹

Lending criteria and access to bank finance

The innovation of cash credit accounts (an early form of overdraft developed in Scotland) resulted in businessmen having access to flexible credit. In an attempt to reduce information asymmetries, nineteenth-century banks gathered information about their potential borrowing customers, projects to be financed, and available security.³⁰ Potential information problems could be substantially reduced if banks lent to existing shareholders because their stock could be used as collateral for any loan and the bank would have already assessed the suitability of such individuals before they became owners. Notably, Checkland highlighted that one of the benefits of owning shares in Scottish joint-stock banks was that investors could borrow on the security of their stock.³¹ Therefore, it is likely that businessmen may have specifically invested in bank stock to gain access to credit facilities, particularly in the first half of

²⁸ Dwyer *et al.*, 'Gender differences'; Bajtelsmit and Bernasek 'Women investors', Rutterford and Maltby, 'Women investors in England', p.113; Jianakoplos and Bernasek, 'Are women more risk averse?', pp.620-621; Rutterford and Maltby, 'Nesting instinct', pp.306-307.

²⁹ Newton and Cottrell, 'Female investors', p.326 & 332; Reed, *Investment in railways*, pp.203-204; Rutterford and Maltby, 'Nesting instinct', pp.306-307.

³⁰ Newton, 'Assessment of information', p.2.

³¹ Checkland, *Scottish banking*, p.377.

the nineteenth century, when the lending policy of the banks was more cautious. However, with the continued involvement of the banks' management in local business networks and the provision of accommodation on flexible terms, safe loans were eventually made without the need for security.³² This would suggest that businessmen would become a less important shareholder constituency over time.

Local bias

Analysis of modern financial markets suggests that individuals tend to invest in companies for a number of reasons that relate to geographic proximity. Firstly, investors may exhibit a cognitive bias for the familiar, resulting in them investing in companies which are located nearby.³³ Secondly, they may invest in companies which are in close geographical proximity due to asymmetric information problems. As information asymmetries increase with geographic distance, and this would have been even more acute in the nineteenth century, investors may have had a preference for investing in local firms.³⁴ Unlimited shareholder liability, which the majority of Scottish banks had, may have increased the cost of information asymmetries, resulting in a greater desire for proximity on the part of investors.

Investment diversification

Modern portfolio theory implies that there is a diversified portfolio that is preferable to all non-diversified portfolios.³⁵ The efficacy of diversification is not solely dependant on the number of different securities, but also on diversification across

³² Newton, 'Assessment of information', p.28.

³³ Huberman, 'Familiarity', p.659.

³⁴ Coval and Moskowitz, 'Home bias', p.2046; Gaspar and Massa 'Local ownership'.

³⁵ Markowitz, 'Portfolio selection', p.77.

different uncorrelated sectors.³⁶ This suggests that individuals will not commit to holding multiple stocks within the one industry at the expense of diversifying across industries as this will increase the risk associated with their holdings, without necessarily increasing the expected return.

One would expect unlimited liability to discourage multiple holdings as each additional unlimited stock in a portfolio would greatly increase the risk of a call on an investor's personal wealth. One would also expect under unlimited liability that the company itself would not be keen for their investors to own stock in any other unlimited firm as systematic, economy-wide shocks would only increase the probability that an individual would have other calls made upon their wealth. For these reasons, it is believed that one of the largest benefits to come from limited liability is the ability to hold a diversified portfolio.³⁷ Hence, it is only under limited liability that diversification is a suitable tool for reducing risk. In summary, one would therefore expect individuals investing in unlimited Scottish banks not to diversify their holdings into other unlimited stocks.

Empirical strategy and data sources

In order to analyse investor behaviour, this study examines occupational and residential characteristics of Scottish bank shareholders in the nineteenth century. After an extensive archival trawl, shareholder data was collected from a variety of sources. Extensive use is made of an 1846 report, which gives the occupation and residence of all bank shareholders in Scotland.³⁸ This source allows us to analyse occupational and residential characteristics of shareholders in limited and unlimited

³⁶ Markowitz, 'Portfolio selection', p.78.

³⁷ Easterbrook and Fischel, 'Limited liability', p.94; Kraakman, 'Shareholder Liability', p.694.

³⁸ HBOS Archive: Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland (1846), NRAS 1110/13/192/1.

banks. Furthermore, it permits us to examine the extent to which investors held shares in more than one bank.

A supplement to the *London Gazette* in February 1878 reported the residence and occupation of the shareholders of four Scottish banks. We also located 1878 shareholder lists for the Caledonian Banking Company and City of Glasgow Bank, and an 1885 shareholder register for the Union Bank of Scotland.³⁹ These various sources will enable us to gauge whether investor characteristics and preferences changed from the mid-1840s.

IV. Risk aversion and shareholder constituencies

As highlighted above, merchants and other businessmen by their nature are more risk loving and often have access to superior information compared to other investors. Therefore one would expect them to dominate the early constituencies of the joint-stock banks. Table 3 displays the occupational characteristics of joint-stock bank and public bank shareholders in Scotland in 1846. The first thing which stands out is the relatively large numbers of merchants in the constituencies of joint-stock banks – they account for approximately 20 per cent of shareholders in most banks. Similar to the merchants, manufacturers and skilled tradesmen were another two groups of businessmen who also made up a large percentage of the investors in a number of the joint-stock banks. However, as can be seen in Table 3, all three of these occupational groups account for only a small proportion of investors in the public banks. One possible explanation for this is that the public banks were not willing to offer businessmen the same access-to-credit advantages as the joint-stock banks. For

³⁹HBOS Archive: The Union Bank of Scotland, List of Shareholders, UBS 7/20/20, 1885. British Library: The Caledonian Banking Company, List of Shareholders, 1878. HBOS Archive: The City of Glasgow Bank, List of Shareholders, Acc. No. 960260, 1878.

example, Kerr notes that the majority of public banks' business did not take the form of traditional loans.⁴⁰ Interestingly, although farmers make up a low percentage of investors in the majority of joint-stock banks in 1846, some of the northern-based joint-stock banks have large numbers of farmers investing. Perhaps these provincial businessmen were also availing of the flexible finance offered by banks in their region.

INSERT TABLE 3

Spinsters and widows are a significant group of investors across all banks. However, it is in the constituencies of the limited public banks, where we see the highest number of these traditionally risk-averse investors. On average, *circa* 29 per cent of investors in the limited public banks are female compared to *circa* 14 per cent of investors in unlimited joint-stock banks. One explanation is that these risk-averse individuals did not want to jeopardise their wealth by purchasing unlimited stock. This is compounded by the fact that these companies were recently formed, and therefore did not have a long track record on which to base any investment decision.

Table 4 displays occupational characteristics of four joint-stock banks in 1878, two of the public bank in 1878, and the Union Bank of Scotland in 1885. The five unlimited banks display similar changes in shareholder characteristics. The most noticeable change is the relative and absolute fall in the number of merchants investing in these banks. Indeed, this category becomes amongst one of the smallest groups of investors for most banks. In the 1840s skilled tradesmen were another group of businessmen who were prominent across all the joint-stock banks, but they also fell in significance as the century progressed. The substantial fall in the number of businessmen in shareholder constituencies may be because share ownership was of

⁴⁰Kerr, *Banking in Scotland*, pp.154-155.

reduced importance in ameliorating asymmetric information problems as banks had become more sophisticated at gathering and processing information, with the result that they were less likely to require much in the way of collateral, particularly in the form of their own stock.

INSERT TABLE 4

As can be seen from Table 4, by the late 1870s, spinsters and widows have become a large shareholder constituency in four of the joint-stock banks. The rise of these risk-averse investors adds further weight to the argument that females avoided investing in joint-stock banks in the 1840s because they were still a relatively new investment without an established track record. By the 1870s, joint-stock banks paid high and regular dividends and were mostly regarded as the epitome of stability.⁴¹ However, this does not explain the increased demand for such stock by female investors.

One explanation that helps explain the rise of female investors is the role of inheritance. Initial proponents of joint-stock banking such as Watt suggested that the high dividends they offered made bank shares a good investment choice to leave to daughters.⁴² Newton & Cottrell's more recent interpretation of the bequests left by the initial proprietors of the Barnsley Banking Company suggests that a number of individuals may have indeed made inter-generational or inter-spouse transfers.⁴³ Also helping explain the rise in the number of female investors during the second half of the nineteenth century is demographical changes in Britain. As the century progressed there were an increasingly large number of "surplus women" amongst the upper and middle classes who found themselves without a husband to support their

⁴¹ Fleming, "Theory and practice."

⁴² Watt, *Joint stock banking*, pp.205-252.

⁴³ Newton and Cottrell, 'Female investors', p.329.

financial needs.⁴⁴ As these individuals needed to generate an income in a society that frowned upon women in the workplace, they turned towards investing in the equity market.

Table 5 ranks the risk of bank stock and the proportion of female investors in the bank's constituency in 1878, as well as share denomination and dividends. Risk is measured using the coefficient of variation for monthly stock prices from 1868 – 1878. Monthly stock prices were obtained from the *Investors' Monthly Manual*.

INSERT TABLE 5

From Table 5 we can see that the risk associated with the two public banks is amongst the lowest exhibited by any bank, they are separated only by the National Bank of Scotland – one of the largest joint-stock banks. This joint-stock bank also appears to have been the most popular with female investors, perhaps because it paid the highest dividend. The low ranking of female investors in the Royal Bank of Scotland can perhaps be partially explained by the relatively lower levels of dividends this company paid, as well as having riskier stock. Interestingly, the infamous City of Glasgow Bank, which failed in 1878, was amongst the riskiest banks, second only to the smaller provincial Caledonian Banking Company. The City of Glasgow also had by far the lowest percentage of female investors – perhaps emphasising their reluctance to invest in this company, which turned out to be very risky with the benefit of hindsight.

V. Investor preference and local bias

In this section we examine investor preference for local stock. Before assessing how the residential characteristics of Scottish bank shareholders differ, it is important to

⁴⁴ Rutterford and Maltby, 'Women investors in England', pp.116-118.

gauge the distribution of the population in Scotland. As can be seen from Table 6, most of the population of Scotland is located in the central bands. The lower central band contains nearly 40 per cent of the population in 1841, which is not surprising as it includes Edinburgh and Glasgow. The upper central band is the next most heavily populated area, with nearly 22 per cent of the population. The lowlands and the highlands of Scotland are the most sparsely populated regions.

INSERT TABLE 6

Table 7 details the branch networks and residence of both joint-stock and public bank investors in 1845 and 1846 respectively. Unfortunately no separate branch statistics for Edinburgh or Glasgow could be obtained. By comparing the branch networks with shareholder residence, we see a number of emerging patterns. Firstly, the majority of shareholders who invested in the north-eastern banks, such as the Aberdeen Town and County, North of Scotland Bank, Eastern Bank and the Caledonian Banking Company resided in the region in which the bank was based. The majority of the shareholders of the Central Bank of Scotland, despite its name, also resided in the northeast of Scotland, where most of its branches were also located. Secondly, of the remaining joint-stock banks whose main business was in Glasgow or Edinburgh, similar patterns can be seen, with the majority of shareholders residing in either or both of these cities. In addition, a lot of shareholders also resided in the lower central area, where these banks also had a significant number of branches. Many of these banks, such as the National Bank of Scotland, had large numbers of branches in the northeast and also had substantial numbers of shareholders from that area.

INSERT TABLE 7

The majority of the shareholders in the three public banks were resident in one of the two main Scottish cities. Outside these cities, the largest percentage of the shareholders resided in the lower central band. The northeast, which was only branched by two of the three public banks, is the only other significant area where investors in the public banks can be found. Interestingly, the public banks did have a greater proportion of investors residing outside of Scotland compared to the joint-stock banks. Although, this may be attributable to the fact that the three public banks had limited liability, it may also be due to the fact that these banks were older and their stock had become diffused over a wider area by the 1840s.

We would have expected unlimited liability to exacerbate the local bias as management attempted to vet candidate owners and investors monitored bank management. However, the data in Table 7 suggest that shareholders in the public banks did not come from a wider geographic area than investors in the larger unlimited joint-stock banks based in Glasgow or Edinburgh. Indeed, investors in all of these banks seem to have manifested a bias towards banks which operated in their immediate locality.

INSERT TABLE 8

Table 8 shows the Union Bank of Scotland branch network in 1845 and 1890 and the residential characteristics of the Union Bank of Scotland Shareholders in 1846 and 1885.⁴⁵ Although exact figures were not available for Edinburgh and Glasgow in 1845, branches were located in both cities and the bank's head office was in Edinburgh. The 1890 figures show that by the end of the century its branch network had grown considerably, with widespread coverage over Scotland. The number of shareholders also increased dramatically throughout the period 1846 - 1885. We can

⁴⁵ *The Banking Almanac* did not report branch locations in 1885.

see that the percentage of shareholders from Glasgow decreases from 34.3 per cent in 1846 to 14.4 per cent in 1885 and shareholdings in Edinburgh only rise slightly by 1885. By 1885, there is a substantial increase in the proportion of shareholders from the northeast of Scotland. Perhaps the large increase in branch numbers in that area goes a long way to explain this change.

As can be seen from Table 8, by the 1880's the Union Bank of Scotland shows a significant increase in shareholders who reside outside Scotland. This could be attributable to the fact limited liability had reduced the need for directors to vet candidate owners and shareholders to monitor directors. However, as the Union Bank of Scotland only converted to limited liability in 1882, it is unlikely that this would have made a major impact. Again, it is more likely that holdings had simply become more diffused over time.

Our evidence suggests that investors in the nineteenth century did have a bias towards investment in local companies. Notably, *Michie* noted “although firms (such as banks) did not attract the attention of the London markets there existed a reasonably active market in the areas that the firm operated and the majority of the shareholders lived”.⁴⁶

VI. Investment diversification

This section examines whether Scottish bank investors diversified their investment risk. As our sample consists solely of banks, the majority of which were unlimited, we would not expect individuals to invest in more than one bank. Table 9 displays the occupational characteristics of investors who owned stock in multiple Scottish banks in 1846. From Panel A of Table 9 we see that a large number of investors held stock

⁴⁶ Michie, ‘London stock exchange’, p.64.

in more than one bank. Close to 11 per cent of the c.14,000 individuals investing in Scottish banks in 1846 had shares in a combination of more than one unlimited or limited concern. 13 individuals held stock in more than five companies or more, 36 in four companies, 215 in three companies, and 1,271 in two companies. Of these, merchants make up the largest percentage. Other traditionally wealthy investors such as gentlemen and professionals do not appear to have purchased the same quantities of multiple stock, suggesting the merchants were more risk loving. Female investors who again make up a large percentage of shareholders in many of the individual banks hold even lower levels of multiple stocks, suggesting they are more risk-averse than other groups.

Panel B of Table 9 shows investors holding stock specifically in multiple unlimited banks. Of these, merchants are once again the dominant group. Both gentlemen and professionals also make up a significant proportion of this group of these investors. However, females make little impact on the statistics, constituting a small proportion of investors.

INSERT TABLE 9

One possible reason as to why multiple holdings are commonplace in 1846 is that investors faced a limited array of alternatives. An examination of shareholdings in 1878 should help to shed further light on whether investors were constrained by choice of alternatives in 1846. As mentioned above, by 1878 investors had considerably more choices across a variety of industries and exchanges. Table 10 shows multiple shareholdings across six banks for which we have data in 1878. It also offers a comparison across the same banks in 1846. Although the sample is not fully representative of all banks, it should still help gauge multiple holdings of bank stock in the late 1870s.

INSERT TABLE 10

The most prominent thing that we can see from Panel A of Table 10 is that investors were still holding multiple types of limited and unlimited bank stock in 1878. Over 500 individuals held multiple stocks across a combination of these four unlimited and two limited banks. Table 10 shows that approximately 5.5 per cent of the investors in these six banks had an investment portfolio that contained multiple bank stock in 1878. This is only a slight fall from 1846 when a comparison of the same banks shows approximately 6.2 per cent of investors holding stock in multiple banks. We see from Table 10 that gentlemen, professionals and spinsters dominate holdings of multiple bank stock in 1878, with merchants no longer accounting for the same proportion they did in 1846. As we have suggested above, merchants may have purchased stock to gain access to bank finance. It is perhaps unsurprising that these individuals purchased significantly less stock across multiple banks once these facilities became more readily available.

Panel B of Table 10 indicates a similar story as professionals and gentlemen make up the majority of individuals with multiple holdings of unlimited stock, and spinsters and widows account for a larger proportion than in 1846. This increase in traditional risk-averse investors suggests that they must not have considered these stocks to be overly risky. This may be a little surprising as one would have expected investors to have shown some degree of caution following the failure of the Western Bank of Scotland in 1857.

Even with the increase in the number of stocks available on the market by the second half of the century, a considerable proportion of investors still held multiple types of bank stock, specifically and perhaps surprisingly, multiple types of unlimited bank stock. One plausible explanation is that the rate of return on investment was

significantly higher than that which could be obtained from other types of stock in the late nineteenth century.

VII. Conclusion

This paper, by examining the ownership characteristics of both unlimited and limited banks in Scotland, has found differences in investor preference during the nineteenth century. Although merchants and other businessmen dominate the unlimited joint-stock bank constituencies in the 1840s, their numbers had diminished by the 1870s and we see an increased number of female investors who started to invest in the now well-established joint-stock banks. It is possible that these changes in shareholder constituencies are due to a combination of factors. Firstly, a relaxation of the lending criteria of banks and the substantially decreased importance of bank stock as a method of security may have made bank stock less attractive to merchants and other businessmen alike. Secondly, female shareholders had gradually come to see that the unlimited joint-stock banks offered a safe, yet remunerative investment. Notably, female investors largely avoided the riskiest bank in Scotland – the infamous City of Glasgow Bank.

Our evidence also suggests that investors may have had a local bias in that they invested in banks which branched in their locality. Finally, and somewhat surprisingly, a large proportion of individuals in the 1840s owned multiple shares in unlimited banks, a trend that had not diminished by the 1870s, suggesting that investors were willing to bear the risks associated with owning multiple stock within the one industry.

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TABLE 1
MEMBERS OF THE SCOTTISH STOCK EXCHANGE

| | Glasgow | Edinburgh | Aberdeen | Dundee |
|------|---------|-----------|----------|--------|
| 1845 | 49 | 26 | 15 | - |
| 1848 | 70 | 32 | 15 | - |
| 1850 | 40 | 17 | N/A | - |
| 1864 | 51 | 21 | N/A | - |
| 1880 | 114 | 40 | 14 | 12 |

Source: Thomas, *Provincial Stock Exchanges*, p.287.

TABLE 2
SCOTTISH PUBLIC & JOINT-STOCK BANKS IN THE NINETEENTH CENTURY

| | Established | Owners (1846) | Paid-up Capital (1845) £'s (000's) |
|-----------------------------|-------------|------------------|--|
| <u>Joint-Stock Banks</u> | | | |
| Commercial Bank of Scotland | 1810 | 544 | 600 |
| Aberdeen Town & County | 1825 | 482 | 250 |
| National Bank of Scotland | 1825 | 1,498 | 1,000 |
| Union Bank (Glasgow Union) | 1830 | 627 | 1,000 |
| Western Bank | 1832 | 1,145 | 1,700 |
| Central Bank of Scotland | 1834 | 404 | 57 |
| North of Scotland Bank | 1836 | 1519 | 381 |
| Clydesdale Bank | 1837 | 1,402 | 807 |
| Eastern Bank | 1838 | 484 | 127 |
| Caledonian Bank | 1839 | 883 | 125 |
| City of Glasgow Bank | 1839 | 1,027 | 1,000 |
| Glasgow Banking Company | 1843 | N/A | N/A |
| The Bank of Glasgow | 1843 | N/A | N/A |
| Edinburgh & Glasgow Bank | 1844 | 1,585 | 1,000 |
| Glasgow Banking Company II | 1844 | N/A | N/A |
| North British Bank | 1845 | 414 | N/A |
| <u>Public Banks</u> | | | |
| Bank of Scotland | 1695 | 664 | 1,000 |
| Royal Bank of Scotland | 1727 | 951 | 2,000 |
| British Linen Company | 1746 | 231 | 1,000 |

Sources: Date established from *The Banking Almanac*, 1885. Paid-up capital from *The Banking Almanac*, 1845. Number of investors in 1846 from HBOS: Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1

TABLE 3
OCCUPATIONAL CHARACTERISTICS OF SCOTTISH BANK SHAREHOLDERS (1846)

| | Gentlemen | Professionals | Merchants | Farmers | Manufacturers | White collar | Tradesmen | Other | Widows | Spinsters | Total Shareholders |
|-----------------------------|-------------|---------------|-------------|------------|---------------|--------------|-------------|-------------|------------|-------------|--------------------|
| <u>Public Banks</u> | | | | | | | | | | | |
| Bank of Scotland | 15.4 | 16.9 | 6.3 | 0.8 | 0.5 | 3.8 | 2.0 | 26.4 | 8.6 | 19.6 | 664 |
| Royal Bank of Scotland | 17.7 | 16.4 | 3.5 | 0.7 | 0.3 | 4.0 | 1.3 | 23.8 | 8.9 | 23.4 | 951 |
| British Linen Company | 17.3 | 17.3 | 4.3 | 0.4 | 0.0 | 8.2 | 3.5 | 22.5 | 7.8 | 18.6 | 231 |
| <i>Mean</i> | <i>16.8</i> | <i>16.9</i> | <i>4.7</i> | <i>0.6</i> | <i>0.3</i> | <i>5.3</i> | <i>2.2</i> | <i>24.2</i> | <i>8.4</i> | <i>20.5</i> | <i>615.3</i> |
| <u>Joint-Stock Banks</u> | | | | | | | | | | | |
| North British Bank | 48.3 | 5.5 | 19.1 | 0.5 | 4.6 | 6.0 | 8.7 | 1.6 | 2.9 | 2.7 | 414 |
| North of Scotland Bank | 27.0 | 11.7 | 19.2 | 7.6 | 1.3 | 5.4 | 13.7 | 5.8 | 4.1 | 4.2 | 1,519 |
| National Bank of Scotland | 26.2 | 10.7 | 14.8 | 1.4 | 1.7 | 3.6 | 8.4 | 15.0 | 9.0 | 9.1 | 1,498 |
| City of Glasgow Bank | 19.2 | 9.6 | 22.7 | 0.8 | 4.0 | 5.9 | 15.2 | 8.9 | 7.2 | 6.7 | 1,027 |
| Western Bank | 17.7 | 13.0 | 22.0 | 1.6 | 3.1 | 6.4 | 8.2 | 11.6 | 6.6 | 9.5 | 1,145 |
| Commercial Bank of Scotland | 17.3 | 16.2 | 11.0 | 3.9 | 1.7 | 3.2 | 3.5 | 21.7 | 7.4 | 14.3 | 544 |
| Aberdeen Town & Co. | 16.6 | 18.2 | 18.7 | 12.0 | 1.5 | 4.4 | 11.2 | 5.2 | 4.8 | 7.5 | 482 |
| Union Bank | 15.0 | 15.0 | 21.2 | 0.6 | 2.2 | 5.0 | 8.9 | 15.1 | 8.9 | 8.0 | 627 |
| Edinburgh & Glasgow Bank | 13.3 | 13.0 | 21.3 | 2.4 | 3.1 | 5.5 | 15.1 | 9.2 | 6.9 | 10.3 | 1,585 |
| Clydesdale Bank | 13.3 | 10.5 | 29.0 | 1.9 | 3.1 | 5.9 | 14.3 | 7.8 | 8.8 | 5.3 | 1,402 |
| Central Bank of Scotland | 12.1 | 9.2 | 21.3 | 19.6 | 1.2 | 6.0 | 19.1 | 4.0 | 4.5 | 3.2 | 404 |
| Eastern Bank | 9.9 | 9.3 | 21.9 | 7.2 | 4.3 | 7.8 | 19.6 | 5.1 | 4.8 | 9.9 | 484 |
| Caledonian Bank | 5.3 | 13.2 | 20.3 | 16.2 | 0.6 | 8.4 | 17.8 | 6.7 | 3.8 | 7.7 | 883 |
| <i>Mean</i> | <i>18.6</i> | <i>11.9</i> | <i>20.2</i> | <i>5.8</i> | <i>2.5</i> | <i>5.6</i> | <i>12.6</i> | <i>5.3</i> | <i>6.2</i> | <i>7.6</i> | <i>924.2</i> |

Source: HBOS: Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1

Notes: The other category includes executors, trusts, companies as well as some small occupational categories

TABLE 4
OCCUPATIONAL CHARACTERISTICS OF SCOTTISH BANK SHAREHOLDING CONSTITUENCIES

| | Caledonian Banking Co. | | City of Glasgow Bank | | Bank of Scotland | | Clydesdale Bank | | National Bank of Scotland | | Royal Bank of Scotland | | Union Bank of Scotland | |
|-------------------------------|------------------------|------------|----------------------|--------------|------------------|--------------|-----------------|--------------|---------------------------|--------------|------------------------|--------------|------------------------|--------------|
| | 1846 | 1878 | 1846 | 1878 | 1846 | 1878 | 1846 | 1878 | 1846 | 1878 | 1846 | 1878 | 1846 | 1885 |
| Gentlemen | 5.3 | 15.0 | 19.2 | 23.9 | 15.4 | 18.7 | 13.3 | 27.4 | 26.2 | 15.1 | 17.7 | 18.8 | 15.0 | 31.5 |
| Professionals | 13.2 | 12.7 | 9.6 | 7.4 | 16.9 | 16.4 | 10.5 | 9.1 | 9.3 | 14.7 | 16.2 | 15.6 | 15.0 | 14.5 |
| Merchants | 20.3 | 7.0 | 22.7 | 5.0 | 6.3 | 2.3 | 29.0 | 5.5 | 14.8 | 5.4 | 3.5 | 2.7 | 21.2 | 2.8 |
| Skilled tradesmen | 17.8 | 6.4 | 15.2 | 2.7 | 2.0 | 0.3 | 14.3 | 2.8 | 8.4 | 2.7 | 1.3 | 0.8 | 8.9 | 1.8 |
| White collar | 8.4 | 2.9 | 5.9 | 2.5 | 3.8 | 2.2 | 5.9 | 2.7 | 3.6 | 1.5 | 4.0 | 3.3 | 5.0 | 1.9 |
| Farmers | 16.2 | 7.2 | 0.8 | 1.4 | 0.8 | 4.2 | 1.9 | 2.4 | 1.4 | 2.1 | 0.7 | 2.2 | 0.6 | 0.9 |
| Manufacturers | 0.6 | 0.1 | 4.0 | 1.3 | 0.5 | 0.4 | 3.1 | 1.6 | 1.7 | 1.2 | 0.3 | 0.3 | 2.2 | 0.4 |
| Other | 6.2 | 18.3 | 7.6 | 40.0 | 24.0 | 24.3 | 6.6 | 19.2 | 13.9 | 22.9 | 20.2 | 27.4 | 15.1 | 15.9 |
| Spinsters | 7.7 | 16.3 | 6.7 | 7.6 | 20.1 | 20.1 | 5.3 | 15.6 | 9.0 | 21.9 | 24.1 | 17.6 | 8.0 | 16.2 |
| Widows | 3.8 | 12.5 | 7.2 | 8.1 | 8.1 | 10.7 | 8.8 | 13.7 | 9.1 | 12.3 | 8.2 | 10.3 | 8.9 | 14.1 |
| Number of shareholders | 883 | 946 | 1,027 | 1,819 | 664 | 1,610 | 1,402 | 1,458 | 1,498 | 1,786 | 951 | 1,719 | 627 | 1,627 |

Source: The shareholder lists for 1846 were obtained from *Lists of proprietors of the Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland* (HBOS Archives: NRAS 1110/13/192/1). Shareholder lists for 1878 were obtained from the supplement to *The London Gazette* for the following banks: Bank of Scotland, Clydesdale Bank, National Bank of Scotland, and Royal Bank of Scotland. HBOS Archive: The City of Glasgow Bank, List of Shareholders, Acc. No. 960260, 1878. HBOS Archive: The Union Banking Company, List of Shareholders The list of Caledonian shareholders was obtained from the British Library (8219 p.29).

Notes: The widows' category also includes some wives whose husbands may have been alive.

The *other* category includes executors, trusts, companies as well as some small occupational categories

TABLE 5
RANKING OF SEVEN SCOTTISH BANKS IN THE 1870'S BY VARIOUS CHARACTERISTICS

| | Coefficient of Variation | | % Females Investors | | Share Price | | Dividends % ¹ | |
|----------------------------|-----------------------------|-------------|---------------------|------|-------------|----------|--------------------------|------|
| | Rank | 1868 - 1878 | Rank | 1878 | Rank | Sep 1878 | Rank | 1878 |
| Bank of Scotland | 1 | 0.078 | 2 | 30.8 | 5 | 327 | 2= | 14 |
| National Bank of Scotland | 2 | 0.080 | 1 | 34.2 | 6 | 327 | 1 | 16 |
| Royal Bank of Scotland | 3 | 0.116 | 5 | 27.9 | 2 | 236.5 | 6 | 9.5 |
| Clydesdale | 4 | 0.118 | 3 | 29.3 | 4 | 278 | 2= | 14 |
| City of Glasgow | 5 | 0.169 | 6 | 15.7 | 3 | 237 | 5 | 11 |
| Caledonian Banking Company | 6 | 0.202 | 4 | 28.8 | 1 | 7.5 | 2= | 14 |

Sources: Share prices & dividend information were obtained from the *Investors' Monthly Manual*. The percentage of female investors has been extracted from the relevant sources above

Notes: ¹ Dividends are expressed as a percentage of par

TABLE 6
POPULATION OF SCOTLAND (1841)

| | Population | % Population |
|-----------------------|------------|-----------------|
| Lowlands | 268,065 | 10.2 |
| Lower Central | 1,018,643 | 38.9 |
| Upper Central | 569,212 | 21.7 |
| Northeast | 465,590 | 17.8 |
| Highlands and Islands | 295,672 | 11.3 |
| Total | 2,617,182 | |

Source: Gray, *Scottish Population Statistics*, p.83.

TABLE 7
BRANCH NETWORK (1845) AND RESIDENTIAL CHARACTERISTICS OF SCOTTISH BANK SHAREHOLDERS (1846)

| | Edinburgh | Glasgow | Lowlands | | Lower central | | Upper central | | Northeast | | Highlands and Islands | | Outside Scotland | Total SH's |
|---|-----------|---------|----------|----------|---------------|----------|---------------|----------|-----------|----------|-----------------------|----------|------------------|------------|
| | % | % | % | No. | % | No. | % | No. | % | No. | % | No. | % | |
| <u>Public Banks</u> | SH's | SH's | SH's | Branches | SH's | Branches | SH's | Branches | SH's | Branches | SH's | Branches | SH's | |
| Bank of Scotland | 34.5 | 10.7 | 6.2 | 9 | 18.5 | 8 | 8.1 | 5 | 13.0 | 9 | 1.7 | 1 | 7.4 | 664 |
| British Linen Company | 32.9 | 14.3 | 8.2 | 15 | 22.9 | 7 | 2.2 | 2 | 12.6 | 13 | 3.0 | 3 | 3.9 | 231 |
| Royal Bank of Scotland | 41.1 | 12.9 | 5.5 | 0 | 16.2 | 4 | 6.9 | 1 | 8.8 | 0 | 1.9 | 0 | 6.6 | 951 |
| <u>Joint-Stock Banks</u> | | | | | | | | | | | | | | |
| <i>Head Office in Edinburgh or Glasgow</i> | | | | | | | | | | | | | | |
| City of Glasgow Bank | 13.4 | 50.4 | 4.4 | 2 | 13.8 | 4 | 4.6 | 0 | 10.1 | 1 | 0.9 | 0 | 2.3 | 1,027 |
| Clydesdale Bank | 18.2 | 40.5 | 8.6 | 2 | 18.3 | 3 | 7.2 | 5 | 4.4 | 0 | 0.4 | 0 | 2.5 | 1,402 |
| Commercial Bank of Scotland | 36.2 | 1.1 | 3.9 | 8 | 19.7 | 10 | 7.7 | 14 | 23.2 | 12 | 2.4 | 7 | 5.9 | 544 |
| Edinburgh & Glasgow Bank | 39.5 | 21.3 | 12.2 | 8 | 14.6 | 3 | 4.0 | 5 | 4.7 | 3 | 0.6 | 0 | 3.0 | 1,585 |
| National Bank of Scotland | 22.3 | 29.0 | 4.9 | 7 | 15.4 | 5 | 6.5 | 4 | 14.2 | 8 | 4.8 | 9 | 3.0 | 1,498 |
| North British Bank | 2.9 | 72.7 | 2.9 | N/A | 11.8 | N/A | 1.9 | N/A | 3.6 | N/A | 0.7 | N/A | 3.4 | 414 |
| Union Bank | 21.2 | 34.3 | 8.0 | 8 | 18.8 | 7 | 8.3 | 7 | 5.7 | 3 | 1.0 | 1 | 2.7 | 627 |
| Western Bank | 15.7 | 34.6 | 11.1 | 8 | 17.5 | 15 | 7.3 | 8 | 10.3 | 5 | 0.7 | 0 | 2.8 | 1,145 |
| <i>Head Office in the Northeast of Scotland</i> | | | | | | | | | | | | | | |
| Aberdeen Town & Co. | 1.2 | 2.1 | 1.5 | 0 | 5.8 | 0 | 2.9 | 1 | 80.5 | 8 | 2.5 | 1 | 3.5 | 482 |
| Caledonian Bank | 3.4 | 2.3 | 1.6 | N/A | 4.8 | N/A | 1.7 | N/A | 45.6 | N/A | 38.8 | N/A | 1.8 | 883 |
| Central Bank of Scotland | 3.7 | 1.7 | 3.2 | 0 | 12.9 | 0 | 5.7 | 1 | 68.1 | 3 | 1.5 | 0 | 3.2 | 404 |
| Eastern Bank | 14.3 | 2.9 | 2.9 | 0 | 5.2 | 0 | 3.9 | 3 | 64.7 | 2 | 0.4 | 0 | 5.8 | 484 |
| North of Scotland Bank | 2.0 | 1.4 | 1.8 | 0 | 4.5 | 0 | 2.3 | 0 | 80.6 | 22 | 4.5 | 6 | 2.9 | 1,519 |

Source: HBOS: Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1 Branch Network, *The Banking Almanac*, 1845.

TABLE 8
RESIDENTIAL CHARACTERISTICS OF UNION BANK OF SCOTLAND SHAREHOLDERS

| | 1846 | 1885 | | Branches | |
|---|-------------------|-------------------|------------|----------|------|
| | % Shareholders | % Shareholders | % Stock | 1845 | 1890 |
| Edinburgh | 21.2 | 24.9 | 29.2 | N/A | 9 |
| Glasgow | 34.3 | 14.4 | 23.0 | N/A | 8 |
| Lowlands | 8.0 | 6.3 | 7.9 | 8 | 24 |
| Lower Central | 18.8 | 12.4 | 11.6 | 7 | 22 |
| Upper Central | 8.3 | 7.5 | 8.6 | 7 | 18 |
| Northeast | 5.7 | 22.9 | 10.1 | 3 | 40 |
| Highlands and Islands | 1.0 | 4.1 | 1.9 | 1 | 9 |
| Outside Scotland | 2.7 | 7.4 | 7.7 | | |
| Number of Shareholders / Branches | 627 | 1,627 | | 28 | 130 |

Source: HBOS Archive: The Union Banking Company, List of Shareholders, UBS 7/20/20, 1885. HBOS Archive: The Union Banking Company, List of Shareholders, UBS 7/20/21, 1904. HBOS, Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1, 1846. *The Banking Almanac* 1845 & 1890

Notes: Branch statistics are not available for 1885.

TABLE 9
OCCUPATIONS OF SHAREHOLDERS OWNING SHARES IN MORE THAN BANK IN 1846

| | Gentlemen | Manufacturers | Merchants | Other | Professionals | White-collar | Tradesmen | Spinsters | Widows | % of Total Investors | Number of Shareholders |
|--|-----------|---------------|-----------|-------|---------------|--------------|-----------|-----------|--------|----------------------|------------------------|
| Panel A: Limited and Unlimited Banks (% holdings) | | | | | | | | | | | |
| 5+ | 7.7 | 7.7 | 23.1 | 30.8 | 0.0 | 15.4 | 7.7 | 0.0 | 7.7 | 0.094 | 13 |
| 4 | 16.7 | 11.1 | 27.8 | 2.8 | 11.1 | 13.9 | 13.9 | 2.8 | 0.0 | 0.260 | 36 |
| 3 | 10.7 | 4.2 | 37.7 | 5.6 | 17.2 | 7.0 | 9.8 | 6.0 | 1.9 | 1.551 | 215 |
| 2 | 16.6 | 3.1 | 26.4 | 8.1 | 15.7 | 6.1 | 11.6 | 8.7 | 3.6 | 9.170 | 1,271 |
| Panel B: Solely Unlimited Banks (% holdings) | | | | | | | | | | | |
| 5+ | 11.1 | 0.0 | 33.3 | 22.2 | 0.0 | 22.2 | 11.1 | 0.0 | 0.0 | 0.065 | 9 |
| 4 | 5.9 | 11.8 | 29.4 | 8.8 | 11.8 | 11.8 | 14.7 | 2.9 | 2.9 | 0.245 | 34 |
| 3 | 11.5 | 5.2 | 39.6 | 4.7 | 14.1 | 7.8 | 10.4 | 5.2 | 1.6 | 1.385 | 192 |
| 2 | 16.6 | 3.3 | 30.4 | 7.7 | 14.5 | 5.8 | 12.8 | 5.0 | 3.9 | 8.153 | 1,130 |
| Total Investors | | | | | | | | | | 13,860 | |

Source: HBOS: Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1.

TABLE 10
COMPARISON OF MULTIPLE SHAREHOLDINGS 1846 & 1878

| 1846 | Gentlemen | Manufacturers | Merchants | Professionals | White-collar | Tradesmen | Other | Spinsters | Widows | % of Total Investors | Number of Shareholders | 1878 | Gentlemen | Manufacturer | Merchant | Professional | White-collar | Tradesmen | Other | Spinsters | Widows | % of Total Investors | Number of Shareholders |
|--|-----------|---------------|-----------|---------------|--------------|-----------|-------|-----------|--------|----------------------|------------------------|------|-----------|--------------|----------|--------------|--------------|-----------|-------|-----------|--------|----------------------|------------------------|
| <u>Panel A: Limited and Unlimited Banks (% holdings)</u> | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | - | - | - | - | - | - | - | - | - | - | - | 4 | 0.0 | 0.0 | 16.7 | 16.7 | 33.3 | 16.7 | 16.7 | 0.0 | 0.0 | 0.1 | 6 |
| 3 | 10.0 | 5.0 | 20.0 | 15.0 | 5.0 | 15.0 | 20.0 | 5.0 | 5.0 | 0.3 | 20 | 3 | 24.6 | 1.4 | 13.0 | 29.0 | 1.4 | 1.4 | 4.3 | 20.3 | 4.3 | 0.7 | 69 |
| 2 | 17.4 | 4.2 | 23.7 | 14.7 | 6.3 | 10.8 | 6.6 | 13.2 | 3.2 | 5.9 | 380 | 2 | 24.8 | 2.1 | 7.1 | 26.6 | 5.0 | 1.6 | 4.4 | 19.0 | 9.4 | 4.7 | 436 |
| <u>Panel B: Solely Unlimited Banks (% holdings)</u> | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | - | - | - | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - |
| 3 | 7.1 | 0.0 | 28.6 | 7.1 | 7.1 | 21.4 | 21.4 | 7.1 | 0.0 | 0.2 | 14 | 3 | 27.8 | 0.0 | 16.7 | 33.3 | 5.6 | 11.1 | 5.6 | 0.0 | 0.0 | 0.2 | 18 |
| 2 | 14.2 | 6.0 | 34.1 | 12.1 | 7.3 | 15.5 | 3.4 | 4.3 | 3.0 | 3.6 | 232 | 2 | 31.2 | 3.5 | 11.9 | 20.8 | 5.9 | 1.5 | 4.5 | 12.4 | 8.4 | 2.2 | 202 |
| Total Investors | | | | | | | | | | | 6,425 | | | | | | | | | | | 9,338 | |

Source: HBOS: NRAS 1110/13/192/1. Lists of proprietors of The Bank of Scotland, Royal Bank of Scotland, British Linen Company and the other banks in Scotland, NRAS 1110/13/192/1, 1846. *The London Gazette* (supplement) February 1878. The City of Glasgow Bank, List of Shareholders, Acc. No. 960260, 1878

Notes: 1878 figures examine multiple ownership across the Bank of Scotland, Royal Bank of Scotland, City of Glasgow Bank, Caledonian Banking Company, Clydesdale Bank, and the National Bank of Scotland. For the point of comparison – the same unlimited and limited banks have been extracted from the 1846 data set.