# UK investment trusts and the Baring Crisis

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**Abstract:** This study examines professional asset management in the UK in the 1880s and 1890s focusing on investment trusts during the financial episode of the Baring crisis. It draws upon a large and unique hand-collected dataset of portfolio holdings on a year-on-year basis, comprising 27,058 securities. Using an event analysis, our findings show that investment trusts were the only heavily affected sector in the UK due to their massive portfolio exposure to Argentina. Our analysis does not pick up any strong stock selection skills in the short run but reveals a longer-term investment perspective based on large fixed-income cash flows on both sides of the balance sheet and a 'carry-trade' on yields. Our results also provide evidence of well-informed shareholders of these trusts, who had a very clear idea of the underlying fundamentals of their investment.

**Keywords:** UK investment trusts, Baring crisis, Portfolio selection, Capital flows, Institutional Investors.
**JEL classification codes:** N20, G23, G11, F21, F65

## 1. Introduction

The Baring crisis has attracted a large volume of research and is perhaps one of the most famous financial episodes in economic and business history. It has all the ingredients of a 'proper' financial crisis. Baring Brothers, an established and important London bank, came close to default in November 1890 in the wake of Argentina's balance of payment crisis. The intervention of the Bank of England (BoE) was decisive and vital to containing the financial panic in UK markets. Immediately after the event, contemporary analyses highlighted the results of 'reckless speculation' and lending by Barings Bank as a lesson to all financial institutions (Bishop, 1891; Wirth, 1893). As early as 1892, the Financial Times invited historians to study the crisis and summarized Argentina's lessons from the "fraud and mismanagement" episode of public money.[1] People also saw the crisis as an argument in favour of the joint-stock governance model for banks as opposed to the private partnership model, followed by Barings Bank (Crump, 1891). The Baring crisis has never ceased to fascinate historians.

More recent research gradually shifted to archival materials, with emphasis on either the economic conditions in Argentina or the monetary intervention of the BoE (della Paolera & Taylor, 2001; Ferns, 1992; Clapham, 1944; Ford, 1956; Eichengreen, 1999, White 2018). There has been some research into the effects of contagion on other banks in the UK (Mahate, 1994) and other Latin American sovereign debt (Mitchener & Weidenmier, 2008). There has also been a careful re-examination of information asymmetries as a cause of the crisis between the investment public and the underwriters (Flores, 2011; Vedovelli, 2018). This study introduces a new angle to these discussions. It approaches the event of the Baring crisis from the perspective of professional asset management by UK investment trusts. Although the crisis was devastating for investment trust companies, due to their large portfolio exposure to Latin America (Sotiropoulos et al., 2020), this aspect of the Baring crisis has never received systematic investigation.[2]

[1] Financial Times, 24 August 1893, p. 2.

[2] Forty years after the crisis, George Glasgow, an insider to the sector, described the Baring crisis effects on events investment trusts as follows: "the oldest investment trust companies, those formed before the Baring crisis […] were unprepared for rough going when that crisis arose. Those that were formed just before the crisis met with misfortune. There were stormy meetings of shareholders in the City, a fact which wears the complexion nowadays of an historical curiosity" (Glasgow, 1930, p. 18).

The Baring crisis offers a unique opportunity to study the portfolio selection approaches of UK investment trusts as well as UK investor behaviour under the extreme circumstances of a crisis. What was the effect of the crisis on the performance of investment trusts? How did investment trusts weather the crisis? What can we learn about the asset management and stock selection skills of UK institutional investors? How did the shareholders of investment trusts react? Was there any contagion because of their decision-making? This study attempts to tackle these questions and offers insights into the early days of professional asset management.

Our analysis draws upon a large and unique dataset of investment trust portfolio data. We hand-collected all available annual portfolio data of UK investment trusts for every year between 1886 and 1896. This allows us to capture year-on-year asset allocation for the period around the Baring crisis. Our dataset includes 118 annual portfolio observations (firm-years) of 23 different investment trusts, comprising a total of 27,058 portfolio holdings. In addition, to capture the effects of the crisis on investment trust performance and to assess any changes in their stock selection skills, we collected monthly prices and dividends/interest payments for over 3,000 portfolio transactions.

Our findings reveal that UK trust companies invested heavily in Latin America and Argentina around the time of the Baring crisis – much more than any banking institution other than the Baring Bank (Flores 2011). Our evidence agrees with the widely held argument in the literature that the decisive intervention of the BoE minimized contagion in UK financial markets (see also the analysis of White 2018 for this point). UK trusts were the only vulnerable sector due to their portfolio exposure to Argentina. Their directors adopted a long-term portfolio approach. They matched a high proportion of fixed dividend/interest cost on the liability side with equally high fixed dividend/interest income on the asset side. Investment trust directors were thus more focused on credit risk and perceived financial events as 'transitory' – as long as their large and diversified portfolios absorbed losses from peripheral defaults. Their investment approach, based on low borrowing costs and higher portfolio yields, and their focus on credit risk, led to their involvement in bondholder information networks. We believe that this risk-matching financing strategy and the long-term asset allocation approach are the main reasons that our analysis of trusts' portfolio transactions fails to pick up any significant stock selection skills in the short run. Our results also provide evidence of the sophistication of investors in the ordinary shares of investment

trusts: these investors did not treat all trusts equally (no contagion) and priced each trust according to its underlying risk exposure to Argentina.

The paper contributes to the abovementioned large literature on the Baring crisis but also to the rising interest in the history of asset management. Economic and business historians have analysed major capital markets from the 19th century onwards as well as investigated international financial flows at the macro level (Adler, 1967; Edelstein, 1982; Platt, 1986; Davis & Huttenback, 1986, Hannah, 2007). More recent research has pursued a disaggregated investigation into the decision-making at the micro-level of different market participants and institutions. Financial asset management is a key theme in this line of research. There have been studies looking into Keynes' portfolio management of Cambridge College Endowment (Chambers et al., 2015; Chambers & Kabiri, 2016; Accominotti & Chambers 2016), while there is also research into the investment history of university endowments (Chambers et al., 2020). Chambers and Esteves (2014) analysed the portfolio selection strategy of the Foreign and Colonial Investment Trust between 1880 and 1913. Annaert and Verdickt (2020) investigated the asset management of a closed-end fund belonging to the Belgian Société Générale in the 19th century. This is the first study to offer detailed and comprehensive insights into the portfolio selection strategies and stock-selection skills of early professional asset managers in the UK.[3]

The paper is organized as follows. Section 2 explains the portfolio data collection, the methodology, and describes the sample. Section 3 provides a brief description of the events of the Baring crisis. Section 4 examines portfolio investment in Argentina around the crisis and assesses how the crisis affected investment trusts as opposed to other sectors. Section 5 examines the investment approach of UK trusts and investigates their stock selection strategies. Section 6 discusses the reaction of the shareholders of UK investment trusts to the Baring crisis and investigates their investment behaviour, including whether there was contagion. Section 7 summarizes the main findings of the study and concludes. Several online appendices offer more details concerning the calculations behind this study.

## 2. Data of investment trust portfolio

[3] Sotiropoulos et al. (2020) have looked at all available investment trust portfolios before WWI. However, they followed a 5-year sampling approach to capture the longer-term trends in portfolio management between 1885 and 1914. This study is based on annual portfolio data. These data, coupled by a large sample of financial returns, allow a comprehensive analysis of portfolio management and stock-selection skills.

This section describes the data that underpin this study. To get an idea of the investment strategies of UK trusts,[4] one needs information about their portfolio holdings. About half of English investment trusts – but no Scottish investment trust during the Baring crisis period – disclosed the lists of their portfolio holdings along with the annual reports. These reports can be found at the Guildhall Library in London. Our study follows the approach of Chambers and Esteves (2014), Sotiropoulos et al. (2020), and Sotiropoulos et al. (2023) of using the published investment lists to investigate the underlying portfolio strategies of UK trusts. Chambers and Esteves examined the portfolio strategies of the Foreign and Colonial Investment trust using disclosed annual portfolio data from 1880 to 1913. Sotiropoulos et al. (2020 and 2023) looked at all available investment trust portfolios between 1885 and 1928 adopting a 5-year sampling approach to capture the longer-term trends in portfolio management. This study offers a synthesis of these two approaches. It uses annual portfolio data for all disclosed investment trust portfolios to capture year-on-year asset allocation for the period around the Baring crisis. We hand-collected data from all available lists of portfolio holdings for every year between 1886 and 1896. This leads to a new and unique dataset of 118 annual portfolios (firm-years) of 23 different investment trusts, comprising a total of 27,058 portfolio holdings. Table 1 offers an overview of our sample. The latter has the structure of an unbalanced panel because portfolio disclosure was not always consistent on an annual basis.

[TABLE 1 NEAR HERE]

Our sample includes those investment trusts that disclosed the list of their portfolio investments. These lists provided a detailed description of every single portfolio holding along with the nominal value of the investment in it. For instance, one can find security descriptions like the following: “Bahia, Blanca, and North-Western Railway Company,

[4] The UK investment trust sector was at the forefront of financial innovation during the so-called first globalization era before WWI, see Rutterford (2009), Sotiropoulos et al. (2020). For the general principles of UK investment trusts see: Glasgow (1930, 1935), Gilbert (1939); Robinson (1930), Campbell (1924), Corner and Burton (1968), Williams (1928). UK investment trusts offered asset management services to individual investors and became a low-cost financial vehicle for so-called “averaging” of risk, that is, diversifying risk across a portfolio of marketable securities without having to sacrifice return. Formed as trusts on their initial appearance in the late 1860s, by the 1880s most UK investment trusts had acquired limited liability company status.

Limited, Preferred Shares, £100 each, fully paid", accompanied by a nominal investment of 65 shares. In the great majority of these holdings, the description was enough to identify the country of the investment (Argentina in this example), the sector (Railways in this example), the type of security (preferred shares in this example), and the size of the nominal investment (£6,500 in this example). We additionally consulted the Stock Exchange Yearbook (SEYB) in the cases where the name was not enough to classify the portfolio holding.

Figure 1 compares the number of firms in our sample with all existing incorporated UK investment trusts during the period. George Glasgow's studies in the 1930s offered a detailed record of English and Scottish investment trusts after the 1870s, against which we can compare our sample.[5] As defined by Glasgow, all the trusts in our sample are so-called 'average' trusts; they diversified their portfolios using the 'global distribution of risk' when selecting marketable securities. This definition does not include 'financial' trusts that either operated as holding companies, limiting themselves to a particular market sector, made no attempt to diversify risk, or that preferred non-stock-exchange assets (such as mortgages).[6] Our sample includes 23 English investment trusts as opposed to a total of 40 English investment trusts registered as companies in 1896. As we can see in Table 1 and Figure 1, these trusts did not report the lists of their portfolio holdings consistently. This explains why the annual number of the sampled portfolios in Figure 1 fluctuates and does not exceed 15, except in 1894.

[FIGURE 1 NEAR HERE]

Are the trusts in our sample representative of the whole sector? In other words, did the decision to disclose the list of their portfolio investments influence an investment trust's diversification strategy? Our background analysis, reported in Appendix 1, suggests that our sample is not biased towards any of the main investment trust characteristics, such as paid-up capital, leverage, number of directors, or performance.

[5] A detailed list of English and Scottish investment trusts is provided by the three studies made by George Glasgow: one in 1930 on English investment trusts; one in 1932 on Scottish investment trusts; and one updated and revised study in 1935 of both English and Scottish investment trusts. Glasgow's studies also offer important insights into the workings of the investment trust industry from its origins up to the 1930s, carefully distinguishing investment trusts from financial trusts that pursued a different investment strategy.

[6] In the following analysis we use the term 'investment trust' for the companies in the first category as opposed to 'financial trust' characterizing trust companies belonging to the remaining two categories (for the original discussion see Scratchley, 1875). The same distinction has been used by Chambers and Esteves (2014) and Sotiropoulos et al. (2020).

[TABLE 2 NEAR HERE]

Table 2 provides some summary statistics of our sample. It treats the sample as a cross-section but also shows calculations for 1894 (the year with the highest number of portfolio observations). The portfolio structure does not change over time for the trusts in our sample, so the differences between all years and 1894 are small. The results in Table 2 are quite similar to the main findings of the longer-term portfolio analysis of English investment trusts before WWI by Sotiropoulos et al. (2020) as well as Chambers and Esteves (2014). English investment trusts held large portfolios with numerous securities – averaging as many as 230 holdings per portfolio. The emphasis was on investment in bonds which reflected the available market options in the 1880s and 1890s (Michie, 1987; Morgan & Thomas, 1962; Essex-Crosby, 1937).[7] There was still some considerable room for preferred and ordinary shares, which absorbed on average one-third of portfolio investment in nominal terms. We also notice significant cross-sectional variation in the underlying portfolio strategies, with some trusts being keener to invest in ordinary and preferred shares than others. Portfolio turnover, defined as the lower of purchases and sales divided by the portfolio value, averaged 14% for the period 1886 to 1896. Investment trusts did not radically reorganize their portfolios on an annual basis, but neither did they hold on to the same securities over the long term.

## 3. The Baring crisis: some stylized facts

The main events related to the Baring crisis have been addressed in the literature (Ziegler, 1988; Baker & Collins, 1999; Körnert, 2003; White 2018). This section revisits some key moments in this episode that are relevant to our analysis. The crisis had its origins in Argentina, which was a favoured destination for British overseas investment in the last quarter of the 19th century (Ferns, 1953; Feis, 1964; Ford, 1971; Platt, 1986; della Paolera & Taylor, 2001). Argentina experienced a typical balance of payments crisis that soon became a public finance crisis due to extreme domestic inflation and local currency devaluation: tax

[7] A recent study by Chambers et al. (2023) provide evidence that, in the 19th century, the annualized returns of bonds were higher than the annualized returns of equities both in the UK and US.

receipts were in paper pesos but many interest payments were in sterling. The chain of events that eventually brought Baring bank to the edge of collapse started before 1890. As we can see in the first panel of Table 3, Argentina's fiscal position deteriorated rapidly after 1888, and primary fiscal deficits peaked in 1889. It was evident that Argentina's government was associated with high credit risk. Even though spreads with Consols did not change much in 1889, the very fact that inflation skyrocketed, and specie reserves plummeted in the same year were clear signs that the country was heading towards a typical balance of payments crisis – at least, according to today's understanding of economic crises. The depreciation of the domestic currency, in this case the paper peso, creates a currency mismatch between tax receipts and interest rate payments in a foreign currency. This mismatch increases the public deficit, making it harder to borrow capital from abroad. It is then that the balance of payments crisis becomes a public finance crisis (della Paolera & Taylor, 2001, p. 87).

[TABLE 3 NEAR HERE]

UK investors were aware of Argentina's fiscal problems at least from 1885.[8] These fiscal conditions eventually forced the government into a partial default in 1889. In February 1889, the Argentine government decided to redeem in paper pesos part of the debt denominated in gold, namely, the Hard Dollar Loan of 1872 and 1874 (Corporation of Foreign Bondholders, 1889, p. 16; Ferns 1992, p. 258; della Paolera & Taylor 2001, p. 90).[9] This decision took effect from April 1889 (interest payments in gold were provided quarterly in January, April, July, and October, see the *Investor's Monthly Manual*). This decision to pay off some of its gold-denominated liabilities with local paper currency was a partial default that did not pass unnoticed by the investment community in London – as well as in other major international markets for Argentine (government) securities, such as Belgium and Berlin (see Wirth, 1893). The Corporation of Foreign Bondholders (CFB)[10] sent an official

[8] The Committee of Argentine 9% Treasure bondholders – a subcommittee of the Corporation of Foreign bondholders – mentioned in its report on the year 1885 (published in February 1886): "The financial crisis in this Republic […] still continuing. […] In consequence of the crisis, public works which had commenced n Buenos Aires were temporarily suspended" (Corporation of Foreign bondholders 1886, p. 24).

[9] "But on 6th November, 1888, the Congress decreed the redemption of all outstanding Bonds ($113,436,700) at par and the Executive, in its turn, issued a Decree on the 6th February, 1889, ordering the payment of these Bonds in three instalments in the depreciated paper currency of the Republic" (Corporation of Foreign Bondholders, 1889, p. 15).

[10] The Corporation of Foreign Bondholders (also known as the Council of Foreign Bondholders), was a British association established in London in 1868 by private holders of debt securities issued by foreign governments,

letter to Argentina's prime minister on 24 May 1889 requesting to reconsider the decision, which amounts to "a serious detriment" of the "financial position and good faith of the Argentine Republic" (Corporation of Foreign Bondholders 1889, p. 18). *The Economist* made a bold comment on "Argentina Untrustworthiness" on 25 May 1889. According to this article, Argentina's decision:

> […] comes as an opportune reminder that in its dealings with its creditors it is not to be trusted, and it is well that this fact should be brought home to investors, because it would appear that before long it will be attempting to raise money here...but the experience that has lately been gained of its financial untrustworthiness, exemplified both in its dealings with bondholders and its refusal to respect its own laws, ought to make investors little disposed to respond to fresh appeals (cited in della Paolera & Taylor 2001, p. 90).

The strong protest by UK bondholders against the Argentine Government resulted in the decision to pay hard dollar bonds in local pesos being overturned. This took place on the 14 June 1889, and a law shortly afterwards passed, authorising the conversion of the Hard Dollar Bonds into new Gold Bonds in accordance with terms agreed upon in London. This conversion took place in August by Messrs. Stern Bros. New gold bonds of 3.5% were issued in exchange for the outstanding Hard Dollar Bonds of 6% (Corporation of Foreign Bondholders, 1889, p. 16-17).

The financial state of the Argentine sovereign debt was thus known to the investment community in London – at least from April 1889. Primary issues on the London market were "met with a tepid response, and investors dumped paper pesos in anticipation of a further decline in its value" (Mitchener & Weidenmier 2008, p. 466). The financial and political turmoil continued in the following months and received good coverage from the British press. Flores (2011, p. 195) is right to point out that it is implausible to assume that UK investors did not see the crisis coming and were well aware of the chain of the event at least after May 1889. For instance, on 26 August 1889, in a section titled "The coming Argentine Crisis", the

states, and municipalities. In an era before extensive financial regulation, it provided a forum for British creditors to coordinate their actions during the financial event. The CFB published annual comprehensive reports describing the underlying conditions of many sovereign debt securities issued in the UK markets. It served as a key informational channel in the financial ecology of the City (see Mauro and Yishay 2003; Esteves 2013).

*Financial Times* argued that the then-recent events were proving how "the high premium in the Argentine Republic […] is a symptom that the Government and the people have piled mistake upon mistake, and that there is a rampant speculation which cannot come to an end without involving the country in distress." Mitchener and Weidenmier (2008, p. 469) provide a list of how Central and South American events were reported in the *Investor's Monthly Manual* consistently in 1890, while Flores (2011, p. 198) concentrates on sources of information about Latin America and Argentina alternative to press, such as *Fenn on the Funds, Statesman Yearbook*, but most importantly the reports of the CFB. Our background analysis in Appendix 2 shows that there were significant communication channels between the CFB and the UK trusts: five out of the twenty directors of the CFB in the period around the Baring crisis were investment trust directors, while both the CFB and the CFB-Argentina committee were central to the investment trust network.[11]

It is not important for the scope of this paper to describe how exactly Baring Brothers – an established London bank since 1763 which became a specialist in providing finance in South America – found itself on the edge of default. Argentina's financial and economic conditions would affect Barings Bank, but the trigger was the underwriting of a new issue of the Buenos Aires Water Supply and Drainage Loan that could not be sold on the London market. The bank disclosed its situation to the directors of the BoE on Saturday 8 November 1890, more than a year after the partial default of 1889. It took the drastic intervention of the BoE in November 1890 to save the bank from collapse – and the City of London from a financial panic (White 2018).

To avoid a severe financial panic and a drain of foreign capital from London, the BoE led the initiative of a consortium of joint-stock banks and discount houses to secure an emergency line of credit for Barings Bank (Ferns 1992; della Paolera & Taylor 2001).[12] Avoiding the collapse of Barings Bank was enough to prevent a financial disaster in the short term. However, a substantial part of the sterling debt of Argentina's government was effectively in default. The arrangement between the Argentine government (through its

[11] It may well be the case that investment trusts were taking advantage of their insider information in their possession in the negotiations with Argentina via several channels other than the CFB. For instance, this could be unofficial communications with underwriters, who seem to have been relevant actors during negotiations with defaulting governments (see also our analysis below). This point has been suggested by the study of Flandreau (2013) as well as Flandreau and Flores (2012). This question would require a thorough investigation of the official and unofficial links of investment trust directors and is beyond the scope of this paper.

[12] The intervention of the BoE came rather as a big surprise, leading Ferns (1953, p. 71) to argue that "On the British side the Baring Crisis marks the beginning of the end of *laisser faire* capitalism"

representative, Victorino de la Plaza) and Lord Rothschild, the chairman of the committee set up by the BoE to negotiate a settlement of Argentina's debt (Ferns 1992, p. 263), secured two funding loans of almost £1.3 million in exchange for some strict terms and conditions on future debt repayments. These loans enabled the Argentine government to pay its debt service in sterling and buy back the problematic asset that led Barings Bank to collapse. This arrangement was received with conflicting feelings. German and French members of the Rothschild committee were upset by the creation of a pyramid of debt: borrowing money to pay the cost of the previous borrowing. The London banking community was equally furious, even suggesting a military intervention – a recommendation that was never taken seriously by the Foreign Office (Ferns 1953, p. 72-3). However, the agreement dealt with the long-term effects of the crisis on the international financial markets. It eased the financial strain in London but could not prevent a deep recession in Argentina, with its real GDP falling by 11% between 1890 and 1891 (Mitchener & Weidenmier 2008, p. 467).

## 4. Portfolio investment during the turmoil

### *4.1 Portfolio investment in Argentina*

The special interest in Latin American securities by British investors has already been highlighted in the literature.[13] As we can see in Table 4, this also applies to the investment trust portfolios in our sample. Between 1886 and 1896, Latin America was on average the most preferred investment destination for English trusts, ranking above North America (which includes the USA and Canada) and the UK. Indeed, Argentina alone attracted in nominal terms more portfolio investment by trusts than the UK did and was by far the biggest recipient of investment trust funds amongst Latin American economies. The results of Table 4 are cross-sectional, taking the average of pre- and post-Baring crisis investment (and the related recession in Argentina and other Latin American economies). Figure 2 reports portfolio investment by those English investment trusts for which there are portfolio observations both before and after the Baring crisis in 1890. The figure shows that, in nominal terms, there is hardly any change in the amount of portfolio investment in Argentina

[13] See Ford (1971), Ferns (1953), Sotiropoulos *et al*. (2020).

before and after the crisis. The same applies to the holdings of the securities of other Latin American countries in investment trust portfolios: they do not change over the period 1886-1896 (these results are not reported).

However, our findings in Table 4 show a significant cross-sectional variation in investment in Latin America. It is worth noticing that all English investment trusts in our sample had some exposure to Argentina and/or the rest of Latin America except for the American Investment and General Trust company. On the other side of the spectrum, we find trusts such as the Government Stock and Other Securities Investment with 68.39% investment in Latin America in 1888 or the Consolidated Trust with 40.09% investment in Argentina in 1892 (both figures in nominal values).

[TABLE 4 NEAR HERE]

[FIGURE 2 NEAR HERE]

Argentina's partial default in 1889 was not good news for English investment trusts, which held on average about 7% of their portfolios in Argentine central and local government securities (see Table 3). None of the six trusts in our sample[14] that held Argentine 6% hard dollar bonds in 1888 sold them before the announcement of the partial default. These hard dollar bonds were replaced in the portfolios of these trusts with the new 3.5% gold bonds that were offered in exchange by the Argentine government in the summer of 1889. The events surrounding the Baring crisis did not change the overall investment objectives of English trusts and by no means affected their holdings of the Argentine government and railway bonds, as we see in the second panel of Table 3.

Selling a large portfolio portion during a financial turmoil may not be easy or appropriate, especially when one cannot be sure what the actual effects and implications of the evolving crisis will be. Market liquidity may have dried up and there is always the temptation to avoid realizing losses in anticipation of an economic recovery in Argentina in the medium or long run. Whatever the investment trust managers' thinking was, their decisions were not officially recorded, and the direct evidence is thus limited. Our background calculations reveal that the portfolio selection on Argentine securities did not

[14] These trusts were the following: the Army and Navy Investment Trust; the Foreign, American and General Investments Trust; the Foreign and Colonial Investment Trust; the Mercantile Investment and General Trust; the Omnium Investment trust; the United States and South American Investment Trust.

alter dramatically the pre-crisis built-up portfolio positions. Between 1890 and 1896, the average annual purchase of ordinary shares was at the level of 3.4% of portfolio value in nominal terms, slightly higher than the average annual level of ordinary share sales, which was 2.5% of portfolio par value. Over the same period, the average annual purchases and sales of preferred shares were 3.3% and 2.3% of portfolio par value. For bonds, annual average purchases and sales were at the level of 1.1% and 0.8% of portfolio par value respectively. Bond transactions were slightly affected by the crisis, but still purchases exceeded sales. We will get back to this issue in section 5.2 below.

It is thus interesting that investment trusts did not aim to unravel their portfolio exposure to Argentina. On the contrary, this exposure gradually increased on average by 1896. Many loans in default were either part of the funding agreement or part of negotiations between bondholders and local authorities, being anticipated to resume payments at some point in 1893 or 1894. For example, nine out of the twelve investment trusts in our dataset in 1892 held the provincial loan under default: Buenos Aires 6% of 1882-6. The interest of this bond was in arrears since April 1891 to be resumed only in April 1895 (CFB, 1896). Other securities not in default were selling in the market under very attractive terms. For example, the ordinary shares of Entre Rios Railways were acquired by almost all investment trusts in our dataset in 1892 at a discount of 85% from the par value. New debt issuance during the post-crisis fiscal consolidation (most of it as part of the funding agreement) was less risky and offered good yields. For example, the Argentine 6% Funding Loan of 1891 was quite popular among trusts in 1892, being bought by the Army and Navy Investment Trust, the Bankers Investment Trust, the Consolidated Trust, and the Omnium Investment Trust. Investment trusts demonstrated consistent confidence in Argentina's economic recovery, as evidenced by their growing portfolio exposure to the country. The post-crisis fiscal consolidation provided new, lower-risk debt opportunities, contributing to the trusts' continued engagement in the Argentine market. This resilience and strategic positioning underscore the UK trusts' long-term approach to international investments.

### *4.2 Performance of investment trusts during the crisis episode*

Given their exposure to Argentine government and railway bonds, the crisis would sooner or later affect investment trust portfolios and performance. Figure 3 compares the performance (measured by monthly cumulative returns – for details of our calculations see Appendix 3) of

a portfolio of investment trusts in relation to other sectors between January 1887 and December 1895.[15] The shaded area in Figure 3 highlights the 'event' of the crisis and is drawn between May and November 1890. Identifying the 'event' of the Argentine crisis is not straightforward – of course, this applies to all financial crises. It can be argued that there was no single event, but a series of episodes spread over several months.[16] After all, the fiscal difficulties in Argentina had started a couple of years before Barings announced its financial situation in November 1890,[17] and these fiscal difficulties should have been clear to informed investors at least after the partial default of the Argentine government in May 1889 (indicated by the vertical dotted line in Figure 3), when the ministry of finance proposed to pay the service charge on the Hard Dollar Loan of 1872 in paper pesos (see our discussion above). The performance of Argentine government bonds was affected right after May 1889, with the railway bonds following closely.[18] This does not seem to apply to the UK stock market and the financial sectors shown in Figure 3. There is a long period from May 1889, when Argentina appeared "untrustworthy," to November 1890, when Barings officially reached out for financial help.[19] But it was probably the social and political turmoil in the summer of 1890 that came as a wake-up call for London. Investors started reassessing the risk of their foreign Argentine holdings, but there did not seem to exist any major contagion effect in the

[15] A working paper by Campbell and Rogers (2018) investigates the Baring crisis in the context of UK investment trust performance from 1869 to 2015. The difference from our sample is that their definition of investment trusts includes both 'average' trusts as well as financial trusts that did not follow the same diversification approach. They seem to follow the IMM categorization, which is less focused on the character of asset management. For the period of the Baring crisis, Campbell and Rogers rely on the IMM data, while we use both IMM and SEDOL to capture the largest available sample of 'average' investment trusts. They show that the crisis significantly affected investment and financial trust prices in relation to the market index. In our analysis, we estimate cumulative returns (or buy-and-hold performance), which additionally include the effects on dividends. Our results show a much steeper fall in performance because we disentangle investment trusts from financial trusts, which (according to the calculations of Figures 3 and 4) did not face the same downturn.

[16] Mitchener and Weidenmier (2008) place the event in May 1890, when the financial press became more aware of the credit risk in Latin American countries. Mahate (1994) puts the event in November 1890 on the announcement that Baring Banks faced financial problems. Both these dates tally nicely with the research questions of these studies: the first one focusing on the contagion of Latin American securities and the second one on the contagion in the banking sector after the announcement of the Baring Bank's financial condition.

[17] See della Paolera and Taylor (2001) and Ferns (1992). Suspicion of Argentine securities had started in 1888 (Wirth 1893, p. 227); see also Table 4 above.

[18] Of course, what looks plausible *ex-post* as a possible beginning of a crisis cannot be easily identified as such *ex-ante*.

[19] As we discussed above, investors in London were aware of the events in Argentina through several sources, including the IMM (see Mitchener and Weidenmier, 2008) as well as the *Fenn on the Funds*; the *Statesman Yearbook*; the *Mulhall Statistics*; several reports of the Council of the Corporation of Foreign Bondholders; and many local representatives in Argentina (see Flores, 2011). Even investors with no financial skills would be alerted when IMM reported on 23 July 1890 that there was a "Revolt in Buenos Aires, with three or four days fighting." Several studies have made the point that the sequence of the events that led to the intervention of the BoE did not come as a big surprise (Wirth, 1893; Joslin, 1963; Eichengreen, 1999; Flores, 2011).

market. The new government in Argentina, formed in July 1890, started negotiations for a one-year moratorium of debt payments in the form of a funding loan as early as August 1890.[20] The British investment public may not have been aware of these discussions, but it was hardly a secret in London's financial circles. By September 1890 there would have no doubt about the problematic fiscal and economic conditions in Argentina and it is about then that Argentine government bonds started their free fall on the LSE.

[FIGURE 3 NEAR HERE]

Mahate (1994) did not find short-term contagion on listed banks after the announcement that Barings Bank was in trouble using weekly price data.[21] Similarly, our results in Figure 3 do not pick up any serious longer-term contagion effect on the banking sector. The story is very different for investment trusts. The size of the investment trust sector was small (less than 1% of the LSE capitalization in nominal terms) and did not represent any systemic danger to the economy. As we can also see in Figure 3, the performance of investment trusts followed – with a small delay – the performance of Argentine Railway and (central and municipal) Government bonds, to which investment trust portfolios were heavily exposed (see Table 3). Figure 4 provides some further statistical evidence on the performance of investment trusts, banks, and other non-financial companies. It captures buy and hold abnormal returns (BHAR) in the 24 months after March 1890 for these three sectors. The BHAR is the difference between the actual cumulative performance and the expected (or "normal") cumulative performance of the relative portfolios. The estimation of BAHR in Figure 4 starts from March 1890 – that is before the events of the summer – and goes until two years after.[22] In our calculations, we have used the conventional Capital Asset Pricing Model (CAPM) to capture anticipated performance. Appendix 3 offers a detailed discussion of our estimation methodology.

[20] See Ferns (1992, p. 260-6), della Paolera and Taylor (2001, p. 106) and Wirth (1893, p. 231). These negotiations did not conclude immediately and were interrupted when, in November 1890, Barings bank failed – although bankers in London were willing to talk on the basis of certain conditions. Argentina's negotiator in London, Victorino de la Plaza, came to an arrangement, on 23 January 1891, with Lord Rothschild, the chairman of the committee set up by the BoE to negotiate a settlement of Argentina's debts.
[21] The event of the Baring crisis was felt differently by private country banks but "no major run occurred nor was there a drain of capital" (Mahate, 1994, p. 107).
[22] Our results do not change a lot if we choose a different starting month.

[FIGURE 4 NEAR HERE]

The results of Figure 4 support the preliminary evidence of Figure 3. The first statistically significant difference from the 'expected' performance pattern appears in December 1890 (that is, nine months after March, when our calculations in Figure 4 begin), exactly when the BoE's intervention calmed the market, but when perhaps investors started realizing the long-term effects for investment trusts. The latter could not restructure their portfolio overnight and, even if they did so, they would realize massive losses. The Rothschild committee may have been very successful in avoiding a severe financial episode in the UK in the short run.[23] Before that happened, investors encountered a long list of Argentine securities under default. The CFB report for 1890 (published in March 1891) mentioned the request by many investors interested in Argentine securities to constitute a committee for the protection of their interests (Corporation of Foreign Bondholders, 1890, pp. 9-10). The same issue reports other bondholder committees already formed in London. The CFB annual report for 1891 (Corporation of Foreign Bondholders, 1892), includes an extensive analysis of the economic and financial conditions of Argentina. There was a list of as many as 31 Argentine securities in default in 1891-2 – a size that sent shockwaves to UK investors, including investment trust shareholders.

## 5. A long-term investment perspective

### *5.1 Portfolio selection norms*

Our analysis so far has revealed several characteristics of investment trust asset management. Trusts held large portfolios of several hundred securities with relatively low turnover and followed long-term asset allocation strategies. The next step will be to look more carefully into the stock selection norms that investment trust managers might have followed.

Our dataset allows the identification of portfolio transactions on a year-on-year basis through the changes in the nominal value of portfolio holdings. Table 5 offers a summary of

[23] The Rothschild committee came also up with a long-term recovery plan for Argentina. According to the initial negotiations, the resume of the full payments of Argentina's debt was expected to take place from January 1894, although Argentina's government did not make any explicit commitment (CFB, 1893 p. 6, 15). This payment schedule was further revised in 1893 after further negotiations (see CFB, 1894).

portfolio transactions for the investment trusts in our sample. Throughout the whole period between 1886 and 1896, there are 4,848 purchases and 3,633 sales of securities, adding up to a total of 8,881 portfolio transactions. This amounts to about £40 million in nominal value terms, which is equal to 0.7% of LSE paid-up nominal capitalization other than Consols. In the period under investigation, new investment trusts were being incorporated and existing ones expanded their portfolios (issuing new capital), so the number of transactions increased over time, and purchases exceed sales. We were able to match about 40% of the total transactions to securities reported in the *Investor's Monthly Manual* (IMM) dataset. This includes 1,865 purchases and 1,453 sales. For each of these securities, we collected prices and dividend or interest payments for all available months in the period under investigation from the IMM database. This sample of matched securities is not random and is obviously biased towards IMM reported securities,[24] but it is a reasonable sample that allows us to investigate stock selection skills.

[TABLE 5 NEAR HERE]

Figure 5 shows that the yield distribution profile between sales and purchases is almost the same and we do not need any further statistical analysis to say so.[25] It seems that investment trust managers were not picking up yield in the short run: purchases did not offer higher market yields than did sales, at least according to our sample of transactions.[26]

[FIGURE 5 NEAR HERE]

The same figure also reports BHARs for the period of a year after the reporting month. Although there is a large contemporary literature on stock selection skills, BHAR is a standard measure of stock-picking ability (Wermers, 2000; Chambers et al., 2015). BHARs capture the actual cumulative return of individual security over a specific time interval in relation to the beta-adjusted (expected) cumulative return over the same period. BHARs are thus a measure of the ability of directors to predict good or bad performance of individual securities in relation to the anticipated performance. Directors with 'superior' portfolio

[24] For a detailed discussion about the IMM securities in relation to the overall market see Hannah (2018).
[25] We have estimated statistical differences in our background analysis.
[26] There has been a consensus in the literature that over long horizons, yield is a good indicator of financial returns/performance (Ilmanen 2016).

selection skills would be able to 'beat' the market on average, buying securities with positive BAHRs after the transaction and selling securities with negative BHARs after the transaction. In our calculations, the reported BHARs are equal-weighted. The results do not change when we weight the BHARs by the size of the transaction. This is because individual transactions were small in relation to the overall portfolio size (see Appendix 3 for details on these issues).

Our results do not indicate any strong stock selection skills of the trust directors. The profile of purchases and sales are quite similar and both negative on average, with statistical significance at the level of 5%, according to our background estimations. To further check the consistency of our results, without relying on the beta-adjusted expected returns, Figure 5 compares the profile of Sharpe ratios of transactions for 18 months after the reporting month. The results do not change. There are no significant differences between pre- and post-transaction risk-adjusted performance for purchases and sales, with the latter performing slightly better.[27]

### *5.2 Market crises as transient events within a long-term investment approach*

UK bondholders were aware of the ongoing financial difficulties of Argentina at least from 1885. Investment trust directors did not dramatically change their portfolio positions, even after the events of 1890. Table 6 shows that the portfolio transactions were stable over time. Transactions for 1889 were exceptionally high, but this was because two trusts, the Army and Navy Investment Trust and the Mercantile Investment and General Trust, were building their portfolio positions from 156 to 250 securities and from 250 to 313 securities respectively. Other than that, the events in 1890 did not influence purchases and sales of Argentine securities. Even in the year of the crisis, purchases of Argentine securities were higher than sales, both at the level of 5% of portfolio nominal value – purchases in Argentina's central and municipal debt represented almost 2% of portfolio value in nominal terms. A more

[27] Chambers et al. (2015) reached to a similar conclusion when they studied Keynes' portfolio transactions, with both purchases and disposals being usually made after favourable relative-to-market performance leading up to the trade. This general pattern is consistent with that uncovered by more recent studies of U.S. individual investor trading behaviour (Odean 1999; Barber and Odean 1999). For the statistical comparison of BHARs, we have adopted Skewness-adjusted t-tests based on Lyon, Barber, and Tsai (1999). The test for the Sharpe ratios follows the process described by Lo (2002). We used Johnson-Welch approximation to the standard error, performing a simple correction for the bias of the Sharpe ratio based on Miller and Gehr formula (and using the R package: *SharpeR*).

detailed description of portfolio purchases and sales in post-crisis Argentina is reported in Appendix 7 – as we have already mentioned, portfolio selection in Argentina did not change much after the crisis.

[TABLE 6 NEAR HERE]

The findings of Table 6 are consistent with a broad investment philosophy pursued by the directors of these trusts. This investment approach comprised three principles.

First, there is plenty of textual evidence that UK trust managers adopted a long-term investment perspective. A good example is the speech of the chairman of the Governments Stock Investment company at the annual general meeting on 21 January 1891, which is not far from the Baring crisis in November/December 1890. After explaining the reasons for the financial crisis in the UK in the wake of the events in Argentina, the chairman reassured investors about the long-term economic strengths of Argentina:

> Remember the Argentine Government has its railways, and we have been very particular in having the bulk of securities placed on sound railways in the Republic. Do you suppose that a country larger than England, Germany, and France, with all the money which has been spent there – not throwing it into the sea, but for reproductive work – do you suppose that it is going to disappear altogether? (Governments Stock Investment company at the annual general meeting, p. 9-10, 11).

This argument captures perhaps the shared belief among UK asset managers that Argentina had strong long-term growth and profitability perspectives. In August 1890, at the same time as the negotiations of Argentina's new government for a bridge loan to avoid default and three months before the disclosure of Barings' financial condition, Don Francisco Seeber, former mayor of Buenos Aires, wrote two letters to UK investment public to reassure investors about the strong growth potential of Argentina (Bishop, 1891, p. 536). The point in these letters was that, despite fiscal mismanagement by the government, the fundamentals of the Argentine economy were sound. With the benefit of hindsight, this was also an accurate prediction, at least until the 1920s (della Paolera & Taylor, 2001; di Tella and Platt, 1986).

Second, in the above context, investment trusts were more interested in stable cash flows. Figure 6 shows that investment trusts matched a high portion of fixed dividend and

interest liabilities (the ratio between preferred shares plus debentures divided by total paid-up capital was at the level of 65%) with an even higher ratio of fixed dividend and interest securities among their assets (at the level of 80%). In the same figure, we also see that investment trusts were able to lock in low leverage costs in relation to fixed income flows from their portfolio positions, a gap almost at the average level of 2% in nominal terms. With very few maturities coming up (preferred shares and debentures had perpetual or very long investment horizons), UK trusts would only worry about severe credit events that might disrupt cash inflows. Most Argentine securities continued paying income during the crisis, offering attractive investment opportunities (high yields) – see also our discussion above in Section 4.1.

[FIGURE 6 NEAR HERE]

For UK trusts, the nominal yield gap was almost similar to a market yield gap. Over the period covered by our sample, UK trusts could issue debentures at an average market rate of 4% (assuming very long maturity) and fixed dividend preferred shares at an average market rate of 5%. Although, we do not have information on the market yields of all portfolio holdings in our sample when they were acquired, the results of Figure 5 provide an average market yield of purchases for debentures and preferred shares at the level of 6%.

Third, in the above perspective, financial crises or 'events' were seen as "transient" as not generally impacting on the cash flows of large and diversified portfolios (Glasgow 1935, p. xxv). The chairman of the Governments Stock Investment company emphasized this point in the same speech:

> Let me for a moment take you back in the history of the company. […] [T]here was a time when Spain, Turkey, Egypt, Mexico, Peru, Bolivia, Honduras, Colombia, Costa Rica, Alabama, Louisiana, and Virginia – these twelve large, and many smaller states – in all of these we had investments, and all of them defaulted in the payment of their interest. Yet, we paid your Dividend regularly. You see what the Company is now; and do you suppose that, as men of business, because there happens to be a financial panic, we should lose our heads? (Governments Stock Investment company at the annual general meeting, p. 10).

This argument implies that investment trust managers would not liquidate Argentine holdings realizing losses.[28] According to the chairman of the Governments Stock Investment company, properly selected Argentine securities would not default but would be undervalued in relation to their long-term fundamentals.[29] This explains why investment trust managers increased (even slightly) their portfolio investment in nominal terms in the wake of the financial turmoil.

By the time of the Baring crisis, there had already been a long history of defaults by foreign issuers on bonds listed on the LSE and this had led to the setting up of several foreign bondholder associations – such as Spanish, Mexican, Greek, Peruvian, Colombian, and Venezuelan – from as early as the 1820s and 1830s (Flandreau, 2013). The powerful CFB was founded the same year as the Foreign and Colonial investment trust was launched in 1868 and one director, William Trotter, was also a member of the CFB. Lord St David's, London Correspondent of the Aberdeen Trust Company Limited, founded in 1875, was also on the Spanish Bondholders' Committee. Given to the early emphasis on asset allocation at the country level, it was logical for investment trust directors to seek to assess credit and country risk in a global perspective. Thus, these connections with bondholder committees (see also Appendix 2) were put to good use: "Since the boards of investment trusts are often behind the scenes in regard to what is happening to defaulted bonds and debentures, there are occasions when it is wise for them to purchase these silent securities for the sake of capital profit which is sometimes a practical certainty within a comparatively short time" (Robinson 1923, p. 9). This may explain investment trust insistence on Argentina as a country in which to invest for the long term.

## 6. Assessing investors' rationality

Investment trust valuations after November 1890 allow us to investigate contagion in relation to underlying portfolio exposure for the investment trust sector. Contagion is typically defined as the result according to which a shock or an event leads to undifferentiated price

[28] The proceedings from investment trust annual meetings were rarely published in the 1890s.
[29] In the same speech: "Now, with reference to the Argentine Republic, if you go through our list you will find that we have been very careful in having as much as we could in railroads, and certainly as railroad with the guarantee of the Government behind it offers as good a security as we could have" (ibid.).

movements of financial securities in excess of underlying fundamentals.[30] The main price effect of the Baring crisis for UK trusts would be via the portfolio exposure to Argentina. Rational investors would price investment trust shares in relation to the size of their portfolios' investment in Argentina, while irrational/panicking investors would treat all investment trusts the same.

There is a caveat in the above assumption. Portfolio investment in Argentina included holdings in default, some of the latter being subsequently part of the funding agreement between the BoE-led consortium and the government of Argentina. For instance, only 22 per cent of the external loans of Argentina were not in default in 1892, the rest being either part of the funding agreement or part of negotiated post-agreement funding loans (see CFB, 1893). On the other hand, most of the provincial mortgage loans (cedulas) – typically issued by the Mortgage Bank of Buenos Aires – were in default with no details provided by the Mortgage Bank after September 1890 (ibid.). Coupon payments for these mortgage bonds were resumed in October 1893 (CFB, 1894). Many other provincial and municipal loans were also in default – in these cases, bondholders were left to coordinate with the various issuing houses, which had their own agents and correspondents in Argentina, to open negotiations for a settlement with the corresponding local authorities (CFB, 1892). It is thus very difficult to identify the exact timing and results of all these negotiations to create a detailed profile of all loans in default held by the investment trusts in our dataset. Nevertheless, this might not be so important for the analysis of this section. For the ten years around the Baring crisis covered by our dataset, the average number of Argentine portfolio holdings was 35, which is large enough to include many different investment types. Some of these holdings appeared in the portfolios of more than one trust. For instance, the 6% Loan of Buenos Aires of 1882-6, which stopped paying interest in April 1891 to resume only in April 1895, was held by all trusts in our samples (of course, other securities were less popular). Given the large number

[30] There has been a large volume of research on financial contagion that was mostly developed in the aftermath of the financial crises in developing countries during the 1990s (the study of these crises rekindled interest in the Baring crisis of the 19th century). Although the exact definition of contagion varies between studies, our formulation in the text captures the main idea. An early useful summary of relevant theories and approaches is offered by Rigobon (2002). The latter identifies two different strands in the analysis of a financial contagion: an increase in the strength of how shocks are transmitted across countries or an increase in the propagation mechanism driving the transmission (ibid., p. 5). In the context of our study, the timely intervention of the BoE minimized contagion both in terms of the size of the shock and the mode of transmission. The aim of the analysis in this section is not about macro-economic contagion from the Argentina crisis but about UK shareholder pricing behaviour with a particular focus on the investment trust sector. For a further discussion on contagion see Baur (2012) and Devereux and Yu (2020).

of Argentine securities in each trust portfolio, the assumption of our analysis in this section is that when investors encountered the uncertainty caused by the wave of defaults and economic depression in Argentina (which also affected the ordinary and preferred shares not in default), they associated the underlying portfolio risk of investment trusts with the size of portfolio exposure to Argentina.

Not all trusts were exposed to Argentina or Latin America. For instance, the American Investment Trust and the Municipal Trust were two notable exceptions. Although our investment trust sample (for which we have portfolio data) is not large enough to allow a proper statistical analysis of contagion, Figure 7 offers some examples of how individual trusts were affected by the events of the Baring crisis. It shows monthly cumulative returns between January 1887 and December 1895 (the same period as Figure 3) for four selected investment trusts with varying levels of exposure to Argentina. The figure captures possible contagion effects, assessing performance in relation to underlying portfolio 'fundamentals' (the investment in Argentina).

[FIGURE 7 NEAR HERE]

It is interesting to note that, while investors of investment trust shares did not react to the information they had before November 1890, our findings in Figure 7 show that post-crisis performance was heavily driven by the level of portfolio exposure to Argentina. The higher the share of portfolio investment in Argentina, the greater the effect on the cumulative performance. And since the dividends distributed by investment trusts did not change a lot in 1891 or 1892 (according to our background analysis), the performance in Figure 7 is mainly the result of price adjustment, which is a forward-looking measure. Investors may have not been vigilant enough before November 1890 but seemed to closely assess the long-term effects of Argentina's economic and financial condition for investment trusts thereafter. This is also clear in the results of Figure 8, which shows the difference in the share premium[31] between January 1890 and June 1892 also in relation to portfolio investment to Argentina.

[FIGURE 8 NEAR HERE]

[31] This is the ratio of the market price of the ordinary share to the par value of the share.

The evidence in Figures 7 and 8 is against contagion in the investment trust sector. UK investors may have been slow or unwilling to fully consider the effect of the events in Argentina on investment trust performance, but when they did, they did not treat all investment trusts equally. They priced investment trusts almost linearly to the underlying risk exposure. In Figure 8, there is also a notable outlier: the Industrial and General Trust, which has not been included in the estimation of the regression line. The poor management by the directors of this trust after 1890 and their refusion to share portfolio information with shareholders triggered the reaction of the latter, who drastically opposed the management plan for capital reconstruction by setting up a committee of investigation.[32] In other words, investors carefully adjusted prices to reflect underlying risk in relation to Argentina and resorted to activism when the information they had was not enough to allow an efficient valuation.[33]

## 7. Conclusions

This study examined UK professional asset management and portfolio selection discussing investment trusts during the Baring crisis.

The crisis did not develop into a major financial meltdown for UK markets, with the banking and other economic sectors protected by the Bank of England intervention. It left investment trusts as the only vulnerable sector due to their significant portfolio exposure to Argentina. In the face of the crisis, investment trusts adopted a conservative and long-term approach to asset-liability management – a "constructive pessimism" as framed by Glasgow in 1930. They retained their exposure to Argentina in the meanwhile accumulating large visible and inner reserves as well as being cautious in distributing their dividends (Glasgow 1935, Sotiropoulos et al., 2020).

[32] One can find a series of press articles in the *Financial Times* and *The Economist* about the Industrial and General Trust before and after the committee of investigation in 1894. For a discussion about UK shareholder activism see Rutterford and Hannah (2022).

[33] The focus of our analysis in this study is on the months surrounding the Baring crisis. Over the longer run, investment trusts sustained their overall exposure to Argentina and Latin America: not only did their equity prices recover, but they also delivered exceptionally high performance until the 1930s (for this issue see Sotiropoulos et al. 2023). As a matter of fact, despite the crisis at the beginning of the 1890s, Argentina and Latin America offered UK trusts a valuable diversification option, allowing them to weather WWI without major losses.

Our results did not reveal any strong stock selection skills in the short run. Although this type of analysis is sensitive to how the anticipated returns are modelled and our results should thus be read with caution, our calculations do not provide any evidence that directors were able to predict the short run (in terms of months) performance of securities they bought or sold. This may well be the result of a long-term portfolio approach, in which the immediate post-transaction behaviour was not so important. UK trusts matched a high share of fixed dividend/interest costs on the liability side with equally high fixed dividend/interest income on the asset side. Then, taking advantage of their relatively low borrowing costs, they invested in bonds and preferred shares with higher yields. A significant part of their income flows was thus a result of this *sui generis* 'carry trade' on fixed-income securities, making portfolio income from variable dividends (ordinary shares) and valuation changes somehow less important for the management of their cash flows. In this context, investment trusts perceived financial events/crises as 'transitory', to the extent that their large and diversified portfolios could absorb potential losses from security defaults – even at a country level. The fixed-income-carry-trade approach allowed them to 'bet' on the long-term fundamentals of regions or sectors. Investment in Argentina is a good example of this approach and a decision that, despite the balance of payment crisis in 1890 and the following recession, proved quite profitable in the longer run.

Another interesting finding of our results is related to the behaviour of individual investors. Our analysis shows that the shareholders of these trusts were not naïve to the global financial conditions. They avoided contagion during the turmoil and priced trusts according to the underlying fundamentals, namely the risk exposure to Argentina. The event of the Baring crisis has been very useful in deciphering the mindset of both institutional and individual investors of the Victorian era.

With the benefit of hindsight, investment in Latin America, and Argentina more specifically, proved a valuable diversification option in the long run. It offered UK trusts a valuable diversification option allowing them to weather WWI without major losses until the crash of 1929. The results of the 1890 crisis were mostly felt in Argentina, where fiscal consolidation and income adjustment led to deteriorated living standards (Ford 1956). London investors were indeed quite fortunate to avoid a potential major contagion but endured losses on their securities from a highly indebted economy (Duncan 1893) – yet, many of the assets in default eventually resumed their interest payments a few years later as part of the funding agreement between the BoE-led consortium and the government of

Argentina. The crisis offered a big lesson in favour of international diversification with the UK investment trusts not only surviving a major financial event but also setting a successful investing paradigm that became a popular example for investors in the UK and beyond (Rutterford & Sotiropoulos, 2016). In the asset management industry today, it is widely accepted that over long periods of time financial markets tend to move in cycles (Oppenheimer, 2020). Adopting a long-term investment approach, UK trusts targeted yields, not returns, in the context of large and diversified portfolios across the globe accompanied by effective asset liability management. This is well in line with contemporary evidence that over the long run, returns follow yields (Ilmanen, 2016). Peripheral crises could be absorbed as long as portfolios remained globally diversified. UK trusts were less 'active' than contemporary active funds but also less 'passive' than contemporary index tracking funds. They occupied a middle ground in an era in which professional advice was scarce and passive investment impossible, being genuine forerunners of modern professional asset management.

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**Table 1.** Number of investment trust portfolio holdings in our sample by firm and year.

| Investment trust and year of incorporation | 1886 | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alliance Investment (1889) | – | – | – | – | 218 | 238 | 239 | 248 | 255 | 251 | – |
| American Investment and General Trust (1879) | 114 | – | 123 | 162 | 182 | 196 | 171 | 193 | 193 | 199 | 198 |
| Army and Navy Investment Trust (1887) | – | – | 156 | 250 | 291 | 291 | 302 | – | 319 | 321 | 327 |
| Bankers Investment Trust (1888) | – | – | – | 246 | 322 | 343 | 351 | 365 | 355 | 368 | 358 |
| Brewery and Commercial Investment Trust (1890) | – | – | – | – | – | – | – | – | – | – | 153 |
| Colonial Securities Trust (1889) | – | – | – | – | – | – | – | – | 160 | – | – |
| Consolidated Trust (1889) | – | – | – | – | – | 183 | 100 | 190 | 192 | – | – |
| Debenture Securities Investment (1895) | – | – | – | – | – | – | – | – | – | 136 | 159 |
| Foreign, American and General Investments Trust (1883) | 285 | – | 302 | 312 | 326 | 335 | 342 | 350 | 352 | 350 | 351 |
| Foreign and Colonial Investment Trust (1879) | 112 | – | 122 | – | 150 | 163 | – | – | – | – | 258 |
| General and Commercial Investment Trust (1888) | – | – | – | 169 | – | 183 | 181 | 185 | 190 | 191 | 193 |
| Government Stock and Other Securities Investment (1871) | 68 | 74 | 101 | – | – | – | 186 | 204 | 235 | 243 | 258 |
| Guardian Investment Trust (1888) | – | – | – | – | – | 175 | 172 | 174 | 176 | 195 | 212 |
| Imperial Colonial Finance and Agency Corporation (1890) | – | – | – | – | – | – | 32 | 129 | 144 | 168 | 177 |
| Industrial and General Trust (1889) | – | – | – | – | – | – | – | 152 | 279 | – | 312 |
| International Investment Trust (1888) | – | – | – | – | – | – | – | – | – | – | 409 |
| Mercantile Investment and General Trust (1884) | – | – | 260 | 313 | – | – | 467 | 478 | 525 | 526 | – |
| Merchants Trust (1889) | – | – | – | – | – | – | 192 | 203 | 212 | 228 | – |
| Municipal Trust (1879) | – | – | 69 | 92 | – | – | – | – | 146 | 191 | – |
| New Investment (1893) | – | – | – | – | – | – | – | – | 103 | – | – |
| Omnium Investment (1887) | 86 | 145 | 203 | – | – | 318 | 317 | 326 | 317 | 326 | 335 |
| Railway Share Trust and Agency (1890) | – | – | – | – | – | – | – | – | 141 | – | – |
| United States and South American Investment Trust (1886) | – | – | 106 | 116 | – | 184 | 192 | 203 | 198 | 218 | 227 |
| **Number of trusts (total trusts=23; total portfolios=118)** | 5 | 2 | 9 | 8 | 6 | 11 | 14 | 14 | 19 | 15 | 15 |
| **Number of securities (total=27,058)** | 665 | 219 | 1,442 | 1,660 | 1,489 | 2,609 | 3,244 | 3,400 | 4,492 | 3,911 | 3,927 |

**Source:** Our dataset. **Note:** The date of incorporation is given in parentheses.

**Table 2.** Summary statistics of portfolios in our sample.

| | All years | | | | | | | | 1894 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **obs.** | **mean** | **Median** | **st. dev.** | **min** | **quartile 1** | **quartile 3** | **max** | **obs** | **mean** | **median** |
| Number of holdings per portfolio | 118 | 229.31 | 201.00 | 96.43 | 32.00 | 168.25 | 312.00 | 526.00 | 19 | 236.42 | 198.00 |
| ordinary shares | 118 | 78.81 | 79.00 | 56.82 | 1.00 | 22.25 | 116.50 | 255.00 | 19 | 83.05 | 77.00 |
| preferred shares | 118 | 27.78 | 26.50 | 16.58 | 0.00 | 14.00 | 42.75 | 69.00 | 19 | 29.95 | 27.00 |
| Bonds | 118 | 122.69 | 123.00 | 48.11 | 8.00 | 87.00 | 155.75 | 241.00 | 19 | 123.42 | 121.00 |
| Portfolio value (£m) | 118 | 1.45 | 1.19 | 0.91 | 0.11 | 0.88 | 1.89 | 3.69 | 19 | 1.41 | 1.19 |
| % ordinary shares | 118 | 21.93 | 22.10 | 12.11 | 0.57 | 10.93 | 29.26 | 57.46 | 19 | 25.30 | 25.68 |
| % preferred shares | 116 | 11.03 | 11.94 | 5.39 | 1.20 | 6.75 | 13.88 | 37.16 | 19 | 12.79 | 12.46 |
| % bonds | 118 | 67.16 | 65.07 | 15.41 | 32.95 | 57.76 | 76.31 | 95.80 | 19 | 61.91 | 59.67 |
| Value of individual security in (£k) | 118 | 6.62 | 5.58 | 4.71 | 1.24 | 4.06 | 7.94 | 31.81 | 19 | 5.79 | 5.30 |
| Weight of the individual security (% port. value) | 27,058 | 0.44 | 0.28 | 0.57 | 0.00 | 0.13 | 0.55 | 16.56 | 4,492 | 0.42 | 0.27 |
| Portfolio turnover (% port. value) | 81 | 14.83 | 12.44 | 8.60 | 4.74 | 8.71 | 17.29 | 46.41 | 13 | 9.34 | 8.71 |

**Source:** Our dataset.

**Note:** Our calculations are based on the reported nominal portfolio values.

**Table 3.** Selected macroeconomic variables for Argentina and portfolio investment in Argentina of the investment trusts in our sample.

| | 1886 | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Selected macroeconomic variables for Argentina and details of UK issues of Argentine securities*** | | | | | | | | | | | |
| Paper-gold peso exchange rate | 1.39 | 1.35 | 1.48 | 1.80 | 2.58 | 3.74 | 3.29 | 3.24 | – | – | – |
| Budget deficit (millions of paper pesos) | 15.90 | 16.30 | 34.20 | 48.10 | 42.20 | 52.20 | 17.10 | -2.20 | – | – | – |
| Primary deficit (millions of paper pesos) | -1.00 | 0.40 | 15.10 | 18.90 | 12.80 | 8.80 | -15.70 | -38.80 | – | – | – |
| Inflation rate (%) | 3.10 | -4.00 | 0.00 | 19.80 | 40.90 | 56.20 | -20.60 | -6.00 | – | – | – |
| Change in specie reserves (millions of gold pesos) | 9.10 | -5.30 | 23.80 | -31.20 | -6.30 | -0.80 | 0.40 | 1.20 | – | – | – |
| Spread over British Consols | 2.93 | 2.48 | 2.18 | 2.37 | 2.93 | 4.67 | 4.71 | 4.90 | – | – | – |
| UK issues of Argentine securities (£ million) | 11.20 | 11.30 | 34.40 | 12.30 | 4.90 | 0.00 | 1.20 | 0.60 | 0.00 | 0.60 | 0.20 |
| Total UK overseas issues (£ million) | 70.00 | 84.00 | 119.00 | 123.00 | 117.00 | 58.00 | 40.00 | 32.00 | 48.00 | 78.00 | 69.00 |
| ***Average portfolio investment in Argentina as % of portfolio nominal value by sector and year*** | | | | | | | | | | | |
| Number of investment trusts in our sample | 5 | 2 | 9 | 8 | 6 | 11 | 14 | 14 | 19 | 15 | 15 |
| Government (central and local) | 10.02 | 21.77 | 7.99 | 6.63 | 6.39 | 7.34 | 6.79 | 6.59 | 6.68 | 7.17 | 6.38 |
| Railways | 4.75 | 9.94 | 6.32 | 5.23 | 6.67 | 8.19 | 9.35 | 8.45 | 7.92 | 8.38 | 8.31 |
| Ordinary shares | 0.19 | 0.00 | 0.19 | 0.44 | 0.64 | 0.70 | 1.41 | 1.30 | 1.33 | 1.38 | 1.46 |
| Preferred shares | 0.26 | 1.11 | 1.34 | 1.19 | 0.92 | 1.58 | 2.47 | 2.10 | 1.85 | 1.65 | 1.60 |
| Bonds | 4.30 | 8.83 | 4.79 | 3.61 | 5.11 | 5.91 | 5.47 | 5.05 | 4.75 | 5.35 | 5.25 |
| Other | 0.89 | 1.54 | 2.09 | 3.13 | 2.55 | 3.41 | 3.90 | 3.64 | 2.93 | 2.55 | 2.82 |
| Ordinary shares | 0.47 | 0.52 | 0.78 | 1.07 | 0.66 | 1.10 | 1.09 | 0.91 | 0.92 | 0.70 | 0.60 |
| Preferred shares | 0.21 | 0.21 | 0.14 | 0.40 | 0.63 | 0.67 | 1.21 | 0.52 | 0.10 | 0.08 | 0.08 |
| Bonds | 0.21 | 0.81 | 1.17 | 1.66 | 1.27 | 1.64 | 1.59 | 2.21 | 1.90 | 1.77 | 2.13 |

**Sources:** della Paolera and Taylor (2001) and Ford (1971) for the first panel and our dataset for the second panel.

**Note:** The transactions are summarized by financial year, investment trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings.

**Table 4.** Portfolio exposure in Latin America and the rest of the world between 1886 and 1896 as a percentage of portfolio nominal value.

| | obs. | mean | median | st. dev. | min | quartile 1 | quartile 3 | max |
|---|---|---|---|---|---|---|---|---|
| Latin America | 118 | 36.66 | 41.45 | 16.93 | 0.00 | 27.64 | 46.74 | 68.39 |
| Argentina | 118 | 18.01 | 19.51 | 9.18 | 0.00 | 12.62 | 24.32 | 40.09 |
| Mexico | 118 | 6.41 | 5.65 | 3.87 | 0.00 | 3.70 | 10.10 | 14.45 |
| Brazil | 118 | 4.57 | 4.74 | 3.45 | 0.00 | 1.64 | 6.05 | 17.90 |
| Uruguay | 118 | 2.04 | 2.25 | 1.53 | 0.00 | 0.49 | 3.23 | 5.21 |
| Chile | 118 | 1.22 | 0.68 | 1.31 | 0.00 | 0.26 | 1.98 | 5.22 |
| Costa Rica | 118 | 1.12 | 0.72 | 1.60 | 0.00 | 0.00 | 1.28 | 10.58 |
| Venezuela | 118 | 1.01 | 0.45 | 1.38 | 0.00 | 0.11 | 1.25 | 6.19 |
| Cuba | 118 | 0.68 | 0.53 | 0.77 | 0.00 | 0.02 | 0.95 | 5.05 |
| Nicaragua | 118 | 0.26 | 0.07 | 0.38 | 0.00 | 0.00 | 0.39 | 1.37 |
| Colombia | 118 | 0.22 | 0.00 | 0.50 | 0.00 | 0.00 | 0.38 | 4.84 |
| Peru | 118 | 0.22 | 0.00 | 0.75 | 0.00 | 0.00 | 0.00 | 5.31 |
| Paraguay | 118 | 0.21 | 0.00 | 0.36 | 0.00 | 0.00 | 0.35 | 2.63 |
| Panama | 118 | 0.20 | 0.00 | 0.29 | 0.00 | 0.00 | 0.40 | 1.11 |
| North America | 118 | 35.40 | 29.78 | 25.24 | 2.76 | 18.95 | 39.60 | 100.00 |
| UK | 118 | 13.37 | 13.18 | 9.36 | 0.00 | 6.21 | 19.62 | 40.98 |
| Asia/Pacific | 118 | 6.39 | 6.47 | 4.53 | 0.00 | 3.50 | 9.39 | 21.65 |
| Europe | 118 | 6.13 | 5.61 | 7.27 | 0.00 | 1.14 | 7.80 | 44.18 |
| Africa | 118 | 1.97 | 1.66 | 2.02 | 0.00 | 0.59 | 2.65 | 12.79 |
| Unspecified | 118 | 0.09 | 0.00 | 0.73 | 0.00 | 0.00 | 0.00 | 7.78 |

**Source:** Our dataset.

**Note:** Our calculations are based on the reported nominal portfolio values. The transactions are summarized by financial year, investment trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings. North America includes the USA and Canada.

**Table 5.** Summary of portfolio transactions.

| year | English investment trusts in total | Portfolios in our sample | Purchases in £000 | | | | | Sales in £000 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | N | total value | mean value | N identified | identified % to total | N | total value | mean value | N identified | identified % to total |
| 1886 | 8 | 5 | – | – | – | – | – | – | – | – | – | – |
| 1887 | 10 | 2 | 140 | 492.7 | 3.5 | 48 | 34.3 | 65 | 329.8 | 5.1 | 29 | 44.6 |
| 1888 | 16 | 9 | 208 | 865.0 | 4.2 | 87 | 41.8 | 78 | 323.5 | 4.1 | 29 | 37.2 |
| 1889 | 29 | 8 | 546 | 2,948.7 | 5.4 | 204 | 37.4 | 233 | 1,089.40 | 4.7 | 117 | 50.2 |
| 1890 | 37 | 6 | 345 | 1,742.2 | 5.0 | 139 | 40.3 | 200 | 1,246.00 | 6.2 | 82 | 41.0 |
| 1891 | 37 | 11 | 350 | 2,681.1 | 7.7 | 118 | 33.7 | 329 | 2,569.80 | 7.8 | 141 | 42.9 |
| 1892 | 37 | 14 | 338 | 1,624.4 | 4.8 | 124 | 36.7 | 508 | 2,412.40 | 4.7 | 211 | 41.5 |
| 1893 | 39 | 14 | 715 | 3,025.4 | 4.2 | 285 | 39.9 | 475 | 2,137.30 | 4.5 | 192 | 40.4 |
| 1894 | 39 | 19 | 703 | 4,082.3 | 5.8 | 303 | 43.1 | 524 | 1,907.10 | 3.6 | 173 | 33.0 |
| 1895 | 40 | 15 | 866 | 3,362.9 | 3.9 | 323 | 37.3 | 648 | 2,502.30 | 3.9 | 243 | 37.5 |
| 1896 | 40 | 15 | 637 | 2,423.3 | 3.8 | 234 | 36.7 | 573 | 1,900.60 | 3.3 | 236 | 41.2 |
| Total | 40 | 23 | 4,848 | 23,248.0 | 4.8 | 1,865 | 38.5 | 3,633 | 16,418.20 | 4.5 | 1,453 | 40.0 |

**Source:** Our dataset.

**Note:** The transactions are summarized by year, but trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings.

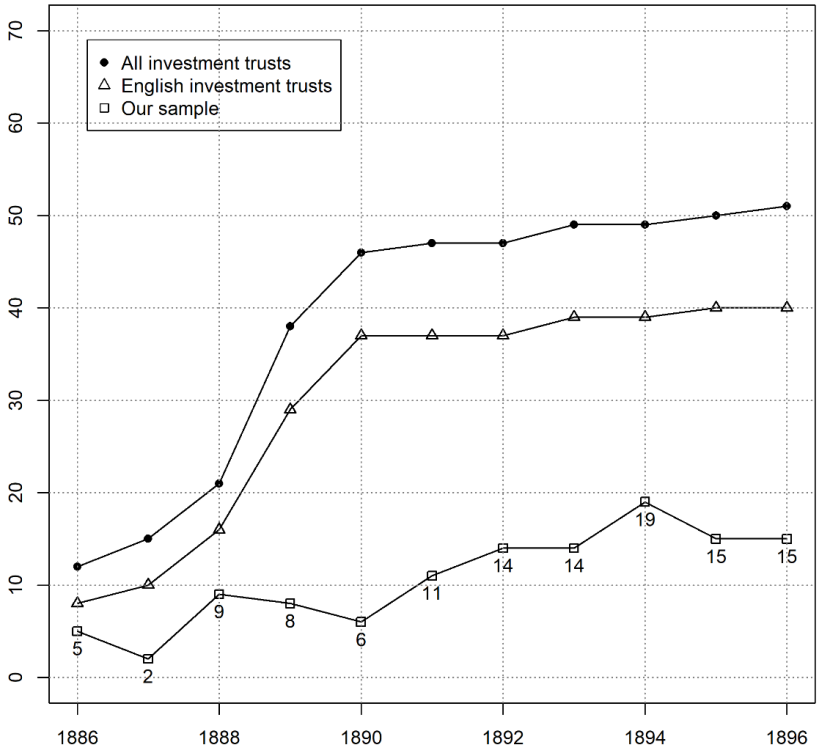
**Table 6.** Average portfolio transactions (purchases and sales) as a percentage of portfolio nominal value for selected asset categories.

| | **1889** | **1890** | **1891** | **1892** | **1893** | **1894** | **1895** | **1896** |
|---|---|---|---|---|---|---|---|---|
| obs. | 6 | 4 | 6 | 10 | 13 | 13 | 14 | 11 |
| Purchases | | | | | | | | |
| All | 67.28 | 23.16 | 19.72 | 11.96 | 24.42 | 11.1 | 22.54 | 22.51 |
| Latin America | 26.06 | 6.93 | 5.01 | 5.70 | 5.99 | 4.52 | 6.87 | 7.60 |
| Argentina | 17.68 | 5.07 | 3.11 | 4.54 | 2.81 | 2.79 | 5.08 | 3.93 |
| Argentina - Government | 9.55 | 1.80 | 1.59 | 0.55 | 1.05 | 1.48 | 1.19 | 0.78 |
| Argentina - non-Government bonds | 7.25 | 2.90 | 1.44 | 2.98 | 1.22 | 1.20 | 3.69 | 2.51 |
| Sales | | | | | | | | |
| All | 18.64 | 16.33 | 18.42 | 18.3 | 14.36 | 9.87 | 13.89 | 15.03 |
| Latin America | 8.08 | 5.20 | 2.82 | 5.98 | 3.63 | 3.36 | 4.82 | 4.37 |
| Argentina | 5.07 | 4.10 | 1.70 | 4.11 | 2.45 | 1.90 | 3.16 | 2.83 |
| Argentina - Government | 2.13 | 2.58 | 0.53 | 1.00 | 0.53 | 0.47 | 0.70 | 0.91 |
| Argentina - non-Government bonds | 2.62 | 1.47 | 1.12 | 2.72 | 1.34 | 1.24 | 2.41 | 1.79 |

**Source:** Our dataset.

**Note:** Our calculations are based on the reported nominal portfolio values. The transactions are summarized by financial year, investment trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings.

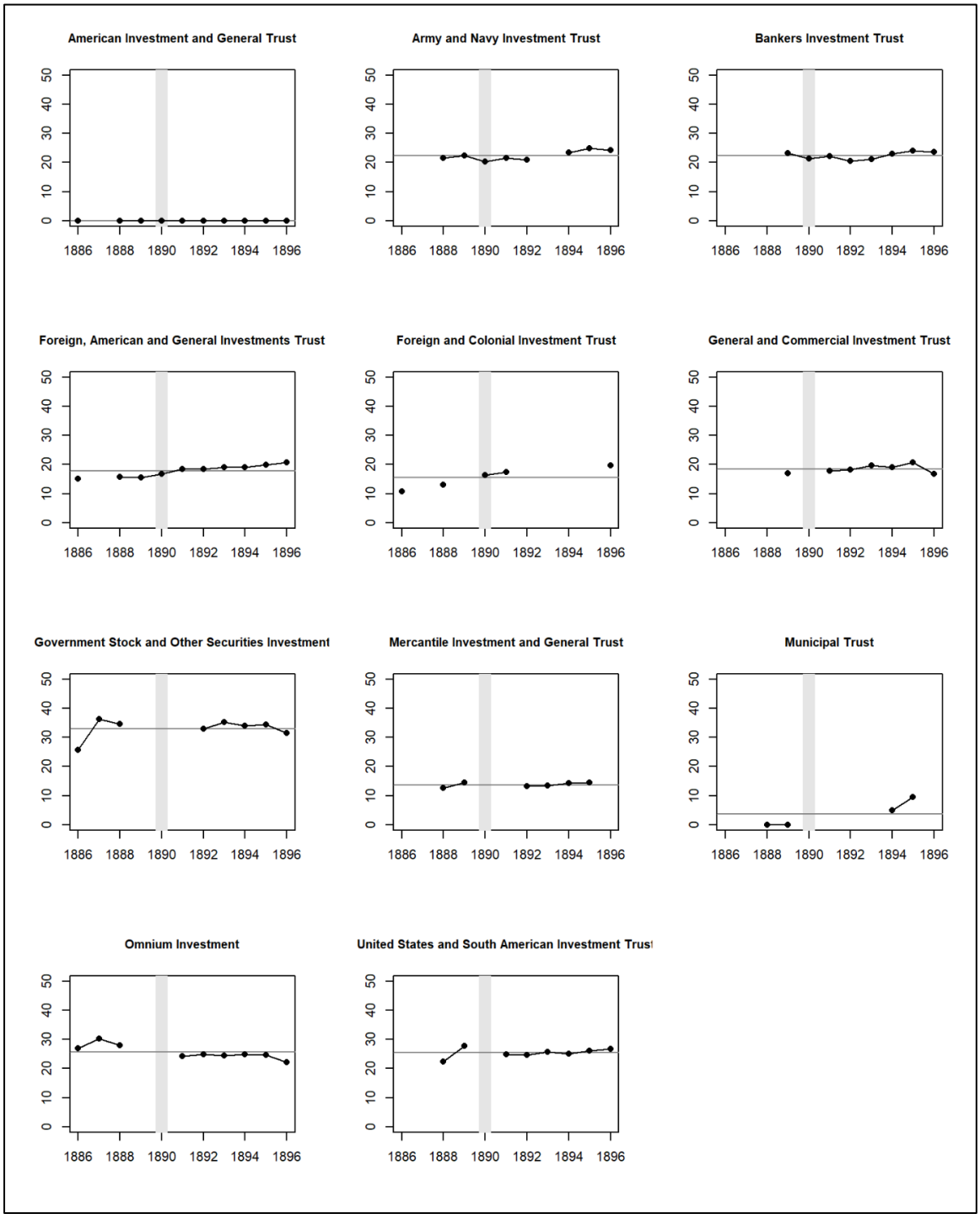
**Figure 1.** Number of incorporated UK investment trusts in our dataset in relation to all incorporated UK investment trust companies.




**Sources**: Our dataset and Glasgow (1930, 1935).

**Note**: For a definition of (average) investment trusts as opposed to financial trusts see the text.

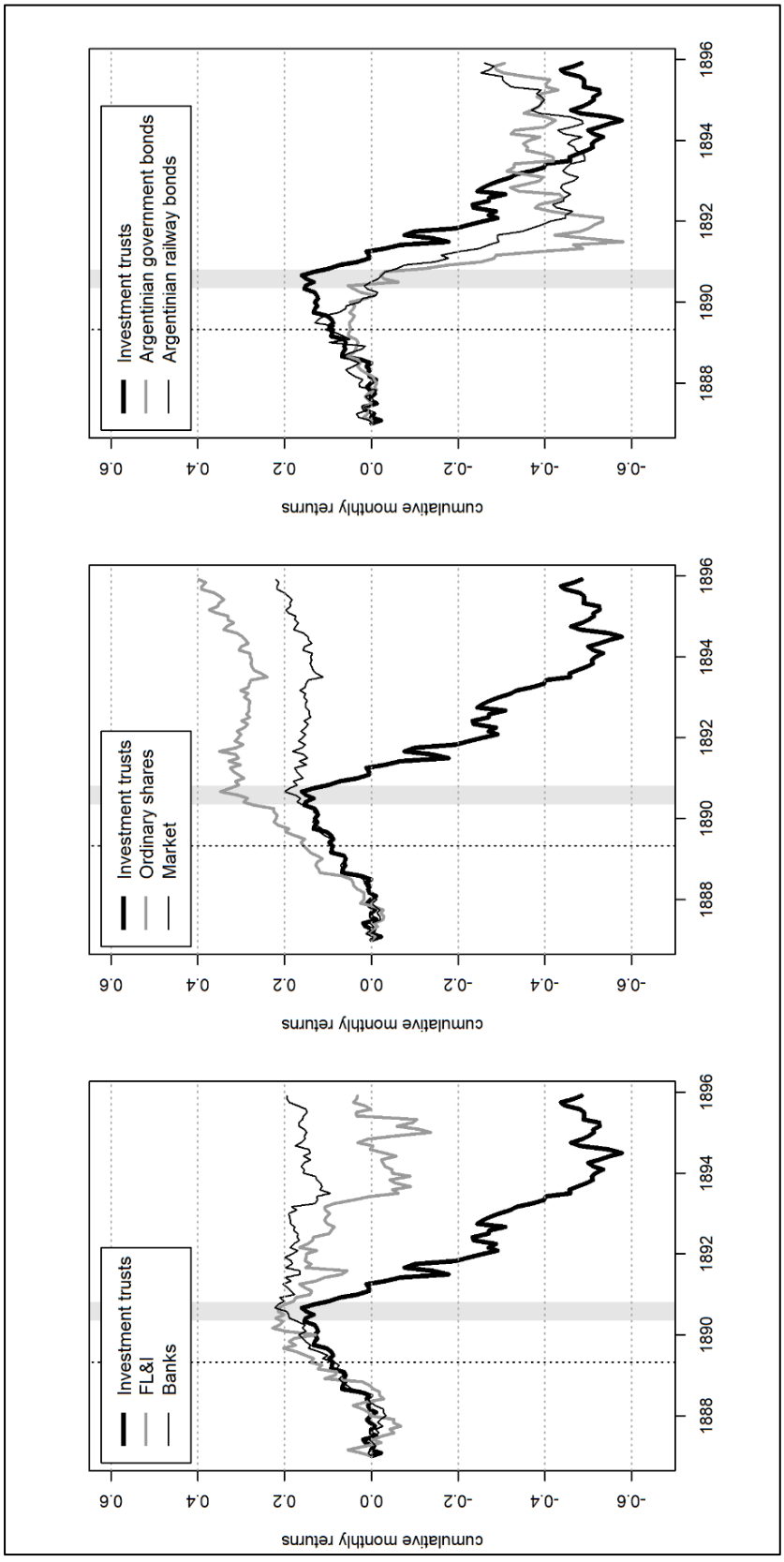
**Figure 2.** Portfolio investment in Argentina as a percentage of nominal portfolio value for selected investment trusts 1886 to 1996.




**Source:** Our dataset.

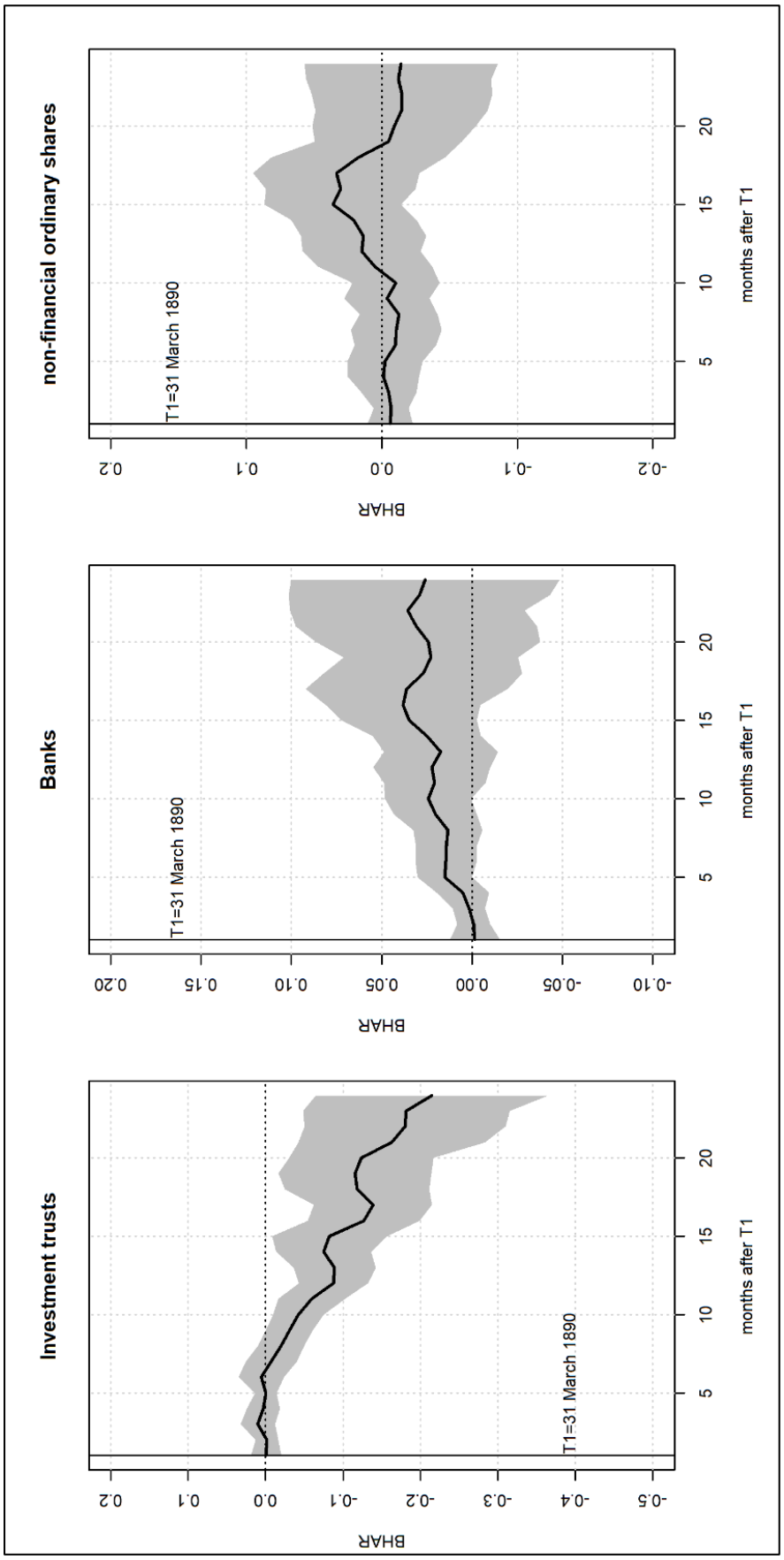
**Note:** The transactions are summarized by financial year, investment trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings. The horizontal lines represent the average portfolio investment in Argentina over the whole period.

**Figure 3.** Cumulative returns of investment trusts in relation to other sectors of the market between January 1887 and December 1895.



**Sources:** *Investor's Monthly Manual* and *Stock Exchange Daily Official List*.
**Note:** Cumulative returns are based on monthly simple arithmetic returns as described in Appendix 3. Appendix 4 offers details of the market portfolio and Appendix 6 discusses the portfolios of (i) 29 investment trusts, (ii) 32 banks, and (iii) 15 Financial, Land, Property and Investment companies – indicated as FL&I in the figure. In addition, the figure features an unweighted portfolio of 25 Argentine (central and local) government bonds as well as an unweighted portfolio of 16 Argentine Railway bonds. The vertical line is drawn in May 1889, to indicate Argentina's partial default. The shaded area highlights the period between May 1890 and November 1890. The legend describes the trusts and offers in parenthesis the average investment in Argentina as a percentage of portfolio nominal value.

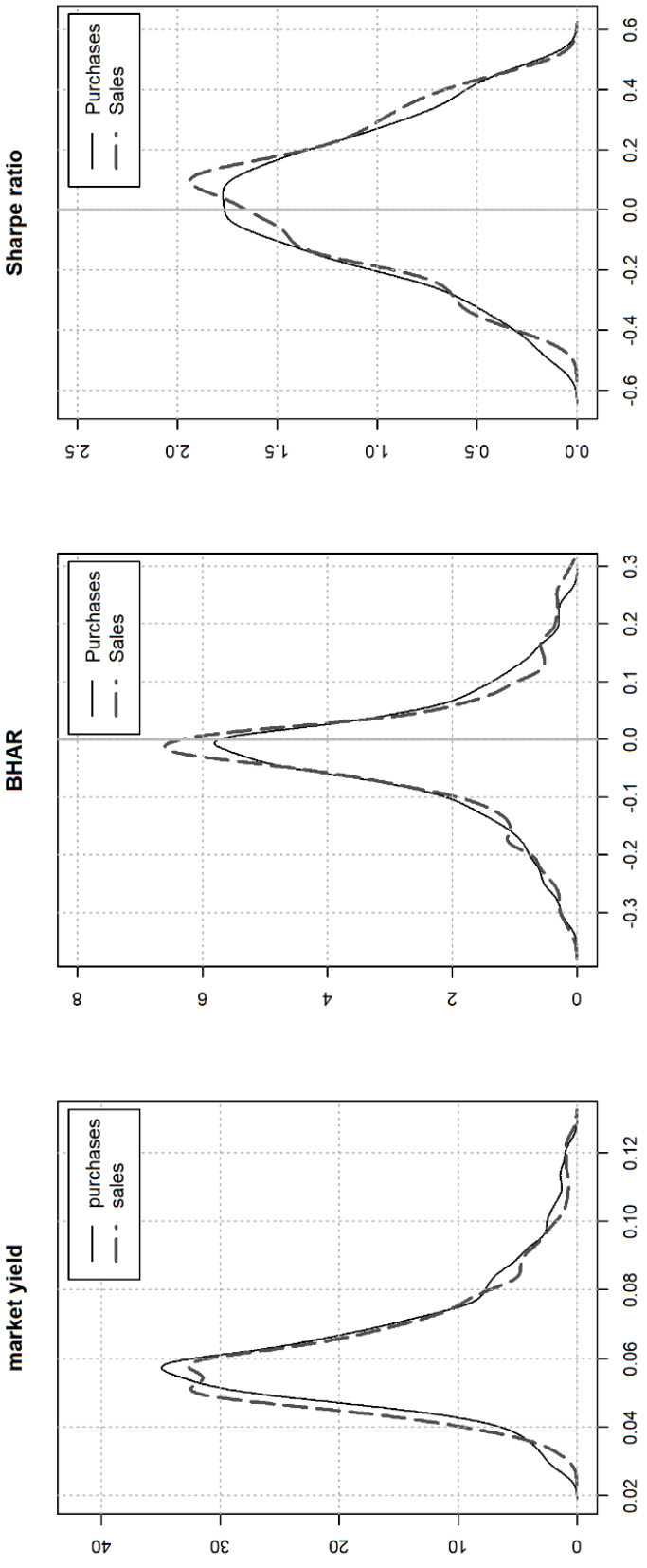
**Figure 4**. Buy and hold abnormal returns.



**Sources:** *Investor's Monthly Manual* and *Stock Exchange Daily Official List*.

**Note**: See Appendix 6 for the portfolios of the ordinary shares of investment trusts and banks. Details for the portfolio of non-financial non-railway ordinary shares can be found in Appendix 4. The estimation of BHAR starts from February 1890 ($T_0$), which means that the first BHAR reported is in March 1890. The BHAR calculations run up to February 1892, which is 24 months later than $T_0$. The grey area indicates the 95% confidence interval, using skewness-adjusted t-tests based on Lyon, Barber, and Tsai (1999). Following Barber and Lyon (1997), we used an unweighted average of market securities to measure market return in the CAPM.

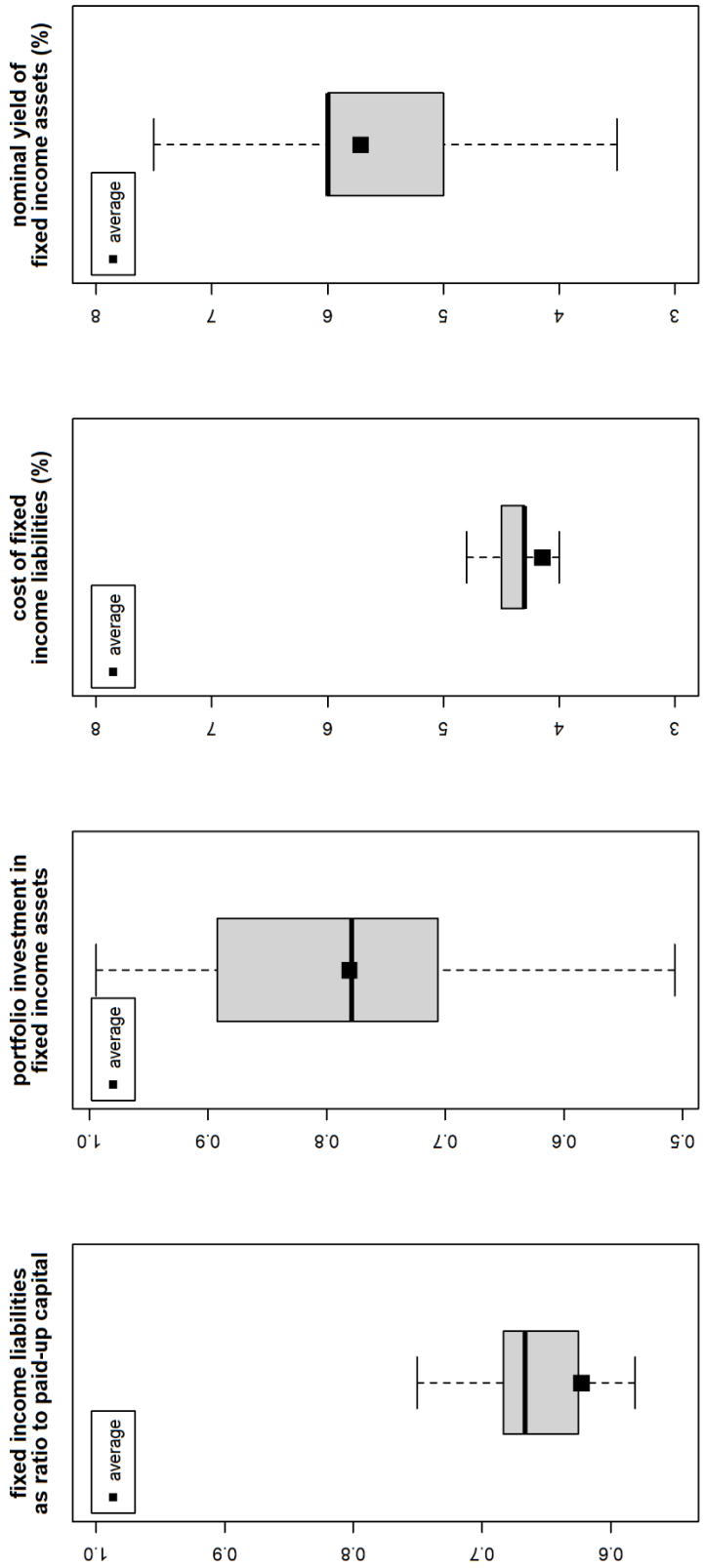
**Figure 5**. The performance profile of purchases and sales.



**Sources:** Our dataset, to identify portfolio transactions, and the *Investor's Monthly Manual* and *Stock Exchange Daily Official List* for the monthly share prices and dividend/interest payments.

**Note:** BHAR and Sharpe ratios are based on monthly simple arithmetic returns as described in Appendix 3. In our calculations, we used the generic function density from R, which computes kernel density estimates.

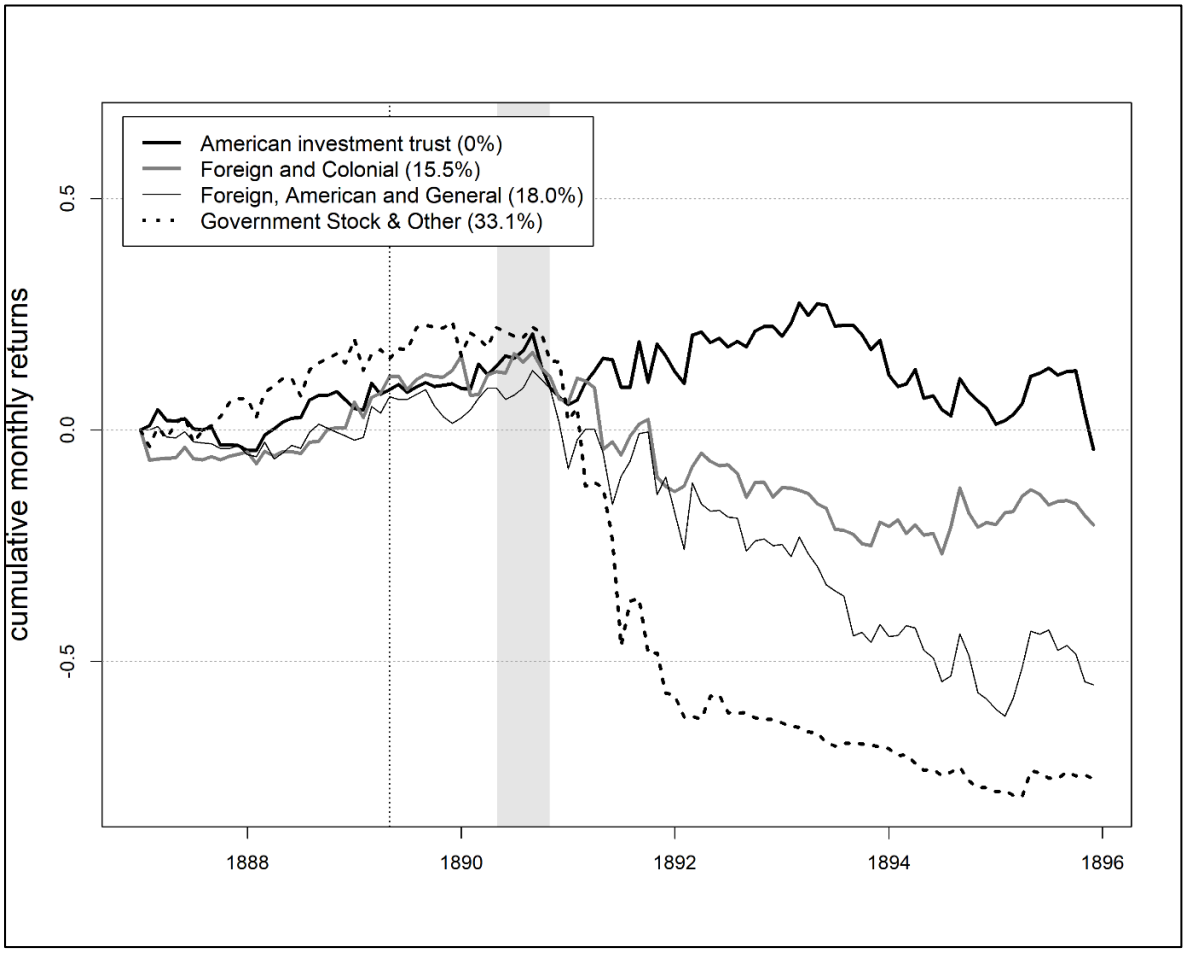
**Figure 6**. Asset/liability management.



**Sources:** Our dataset for portfolio holdings and the *Stock Exchange Yearbook* for the capital structure of liabilities.

**Note:** Fixed income assets include fixed interest bonds and fixed dividend preferred shares.

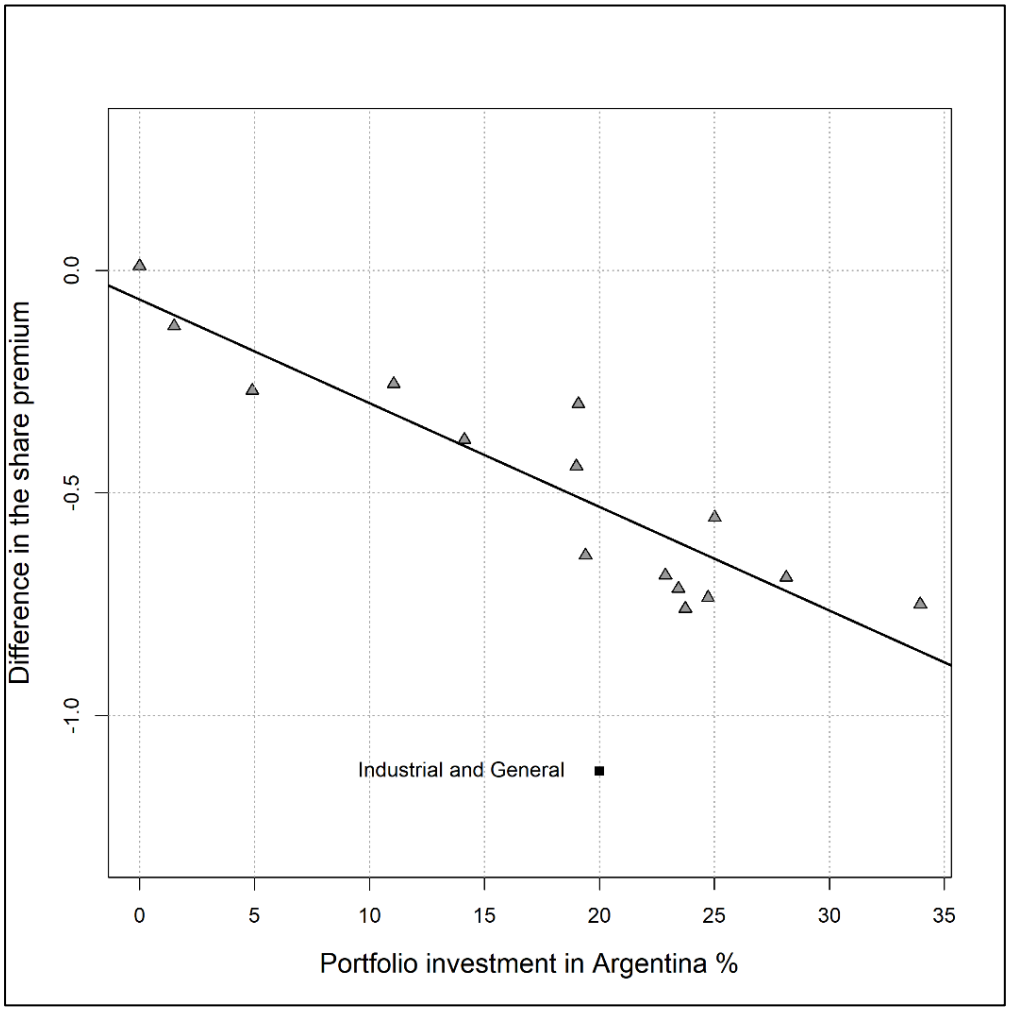
**Figure 7.** Cumulative returns between January 1887 and December 1895 for four selected English investment trusts.




**Sources:** Our dataset, for the portfolio investment, and the *Investor's Monthly Manual* and *Stock Exchange Daily Official List* for the share prices.

**Note:** Cumulative returns are based on monthly simple arithmetic returns as described in Appendix 3. The vertical line is drawn in May 1889, to indicate Argentina's partial default. The shaded area highlights the period between May 1890 and November 1890. The legend describes the trusts and offers in parenthesis the average investment in Argentina as a percentage of portfolio nominal value.

**Figure 8.** Change in share premium in relation to portfolio investment in Argentina between January 1890 and June 1892.




**Sources:** Our dataset, for the portfolio investment, and the *Investor's Monthly Manual* and *Stock Exchange Daily Official List* for the share prices.

**Note:** The Industrial and General Trust is an outlier and has not been included in the estimation of the regression line.

**Appendix 1.** Main characteristics of investment trusts in our sample in relation to the remaining English investment trust sector in 1896.

| | English trusts *disclosing* portfolio holdings in 1896 | | | English trusts *non-disclosing* portfolio holdings in 1896 | | | p-value of the difference between the means |
|---|---|---|---|---|---|---|---|
| | Obs. | mean | st. dev. | Obs. | mean | st. dev. | |
| Nominal paid-up capital (£m) | 23 | 1.22 | 0.79 | 17 | 1.11 | 0.98 | 0.70 |
| Leverage | 23 | 0.60 | 0.24 | 17 | 0.58 | 0.23 | 0.81 |
| Nominal dividend yield (%) | 23 | 2.47 | 2.24 | 17 | 3.35 | 2.40 | 0.25 |
| Dividend yield (%) | 22 | 3.62 | 2.43 | 13 | 5.85 | 4.32 | 0.11 |
| Rate of return on equity (%) | 22 | 7.87 | 19.75 | 13 | 12.27 | 24.78 | 0.59 |
| Number of directors | 23 | 6.52 | 2.25 | 17 | 6.00 | 2.15 | 0.46 |
| Share premium | 22 | 0.50 | 0.33 | 13 | 0.46 | 0.20 | 0.65 |
| Director qualification holdings (£K) | 22 | 1.09 | 0.98 | 17 | 1.33 | 0.90 | 0.43 |

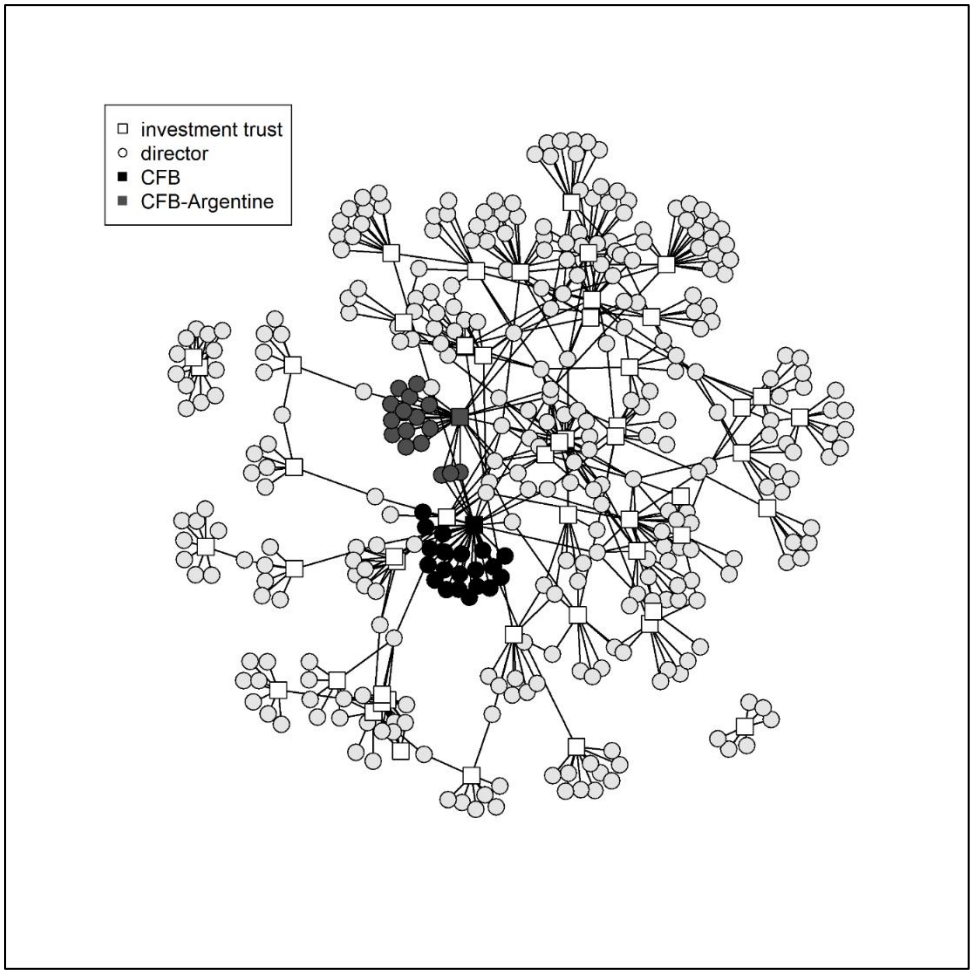
**Sources**: Our dataset and the *Stock Exchange Yearbook*.

**Note**: According to the conventional practice, the null hypothesis in the statistical test is that there is no real difference between the two means. The variables in this table are self-explanatory. Leverage is the ratio of the nominal value of fixed income liabilities (that is, both preferred shares and debentures) divided by the nominal value of total paid-up capital. The share premium is the ratio of the market price of the ordinary share divided by the nominal value of the ordinary share. English trusts non-disclosing the lists of their portfolio holdings appear with higher mean dividend yield and rate of return. This is due to an outlier in this small sample and that's why p-values are higher than 10% significance level. The table provides a standard test for the difference in the means of key variables for two samples of trusts identified according to whether they disclosed or not their portfolio holdings. Employing the cross-section of our sample in 1896 (the year for which we have the biggest cross-sectional observations), our test does not suggest any considerable difference between our sample and the rest of the investment trust sector with respect to paid-up capital, leverage, return on equity, or share premium.

**Appendix 2.** The Corporation of Foreign Bondholders and the investment trust network.

Figure 1 below illustrates the bipartite network of directors and investment trusts in our sample, including both the Corporation of Foreign Bondholders (CFB) and the CFB sub-committee for Argentina. The visualization of the network shows that both CFB and CFB-Argentina committees are vertexes at the centre of the investment trust network, suggesting that inside information coming out of the CFB could easily be disseminated to the whole network. As a matter of fact, five out of the twenty directors of the CFB in the period around the Baring crisis were investment trust directors. Figure 2 measures the eigenvector centrality for the network, showing that both the CFB and the CFB-Argentina committee were central to the investment trust system.

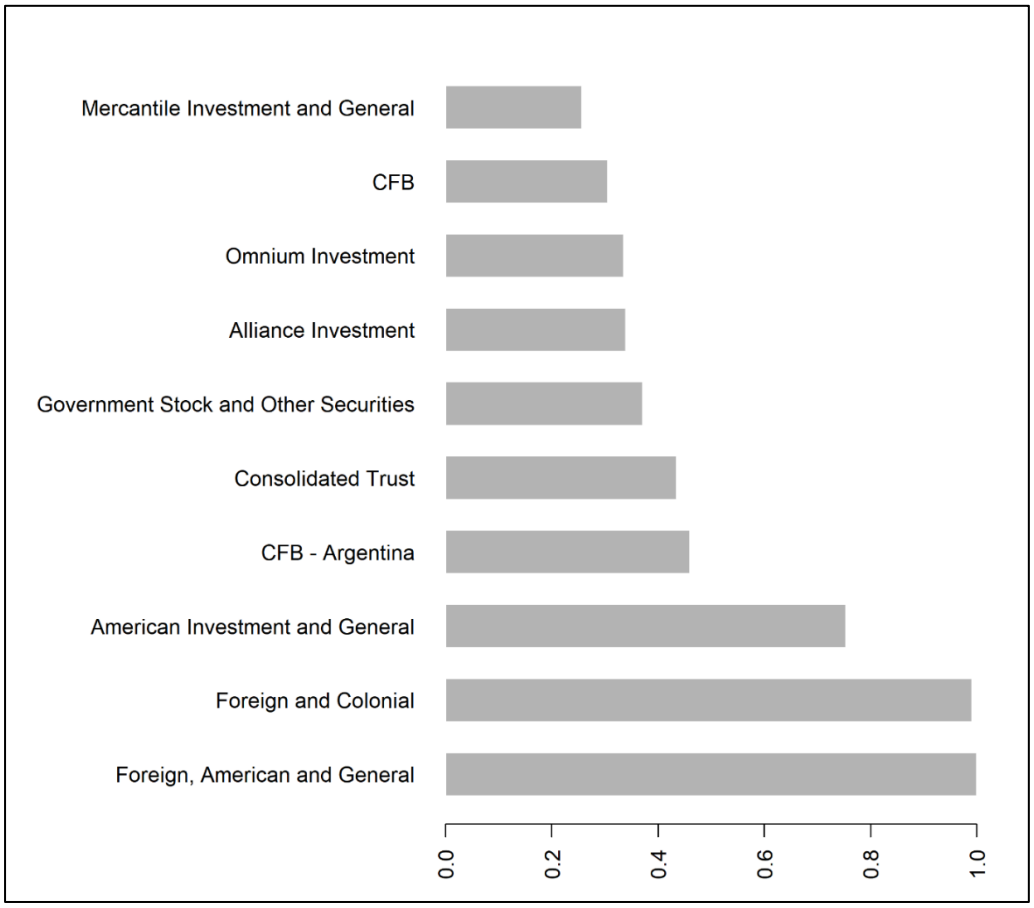
**Figure 1.** Investment trust bipartite network including the Corporation of Foreign Bondholders.




**Sources**: Our dataset.

**Notes**: The figure approaches the investment trust sector as an affiliation network, which is essentially a bipartite or two-mode network preserving the dualistic structure of company-director relations. It represents the network as ties between a set of individuals (directors) and a set of organisations (investment trusts); see Sotiropoulos, Rutterford, and van Lieshout (2019). In the investment trust sector, directors did not change over time. The figure thus treats the whole period under investigation (1886-1896) as a cross-section.

**Figure 2.** Investment trust centrality.




**Sources**: Our dataset.

**Notes**: The figure shows the ten more central and influential investment trusts in the network, including the CFB and the CFB committee on Argentina. These trusts are ranked according to their eigenvector centrality. This centrality measure gives a high score to nodes with connections with many nodes that are themselves central. It thus weights the links according to their overall influence in the network, considering the entire network structure. The eigenvector centrality takes values between zero and one, with one being the maximum possible centrality score. For more see Sotiropoulos, Rutterford, and van Lieshout (2019).

**Appendix 3**: Notes on the calculations of returns and buy and hold abnormal returns.

Our estimates in Figures 3, 4, and 5 are based on a typical event study analysis. We are interested to examine the effects of the crisis over several months, not days, so we followed the standard *long-run* event study methodology.[34] This methodology relies on a buy and hold abnormal return (BHAR) approach, which has been widely used in long-horizon event studies.

The abnormal return of a buy and hold investment for security *i* is simply given by the difference between the *actual realized* return on a buy and hold investment (actual cumulative performance) less the *expected* return of the buy and hold investment (expected cumulative performance) over a period *T*. This is described by equation (1):

$$BHAR_{iT} = \prod_{t=1}^{T}[1 + R_{it}] - \prod_{t=1}^{T}[1 + E(R_{it})] \quad (1)$$

Where $R_{it}$ is the simple arithmetic return of security *i* in month *t* – including both dividend/interest payments and capital gains, which is given by the following standard formula:

$$R_{it} = \frac{P_{it} - P_{it-1} + D_{it}}{P_{it-1}} \quad (2)$$

In this equation, $P_{it}$ is the price of security *i* at the end of month *t*, $P_{it-1}$ the price of *i* at the end of the previous month *t-1*, and $D_{it}$ is the dividend (or interest, in the case of a bond) paid in month *t*.[35] To calculate the returns of securities, we have collected monthly market prices, dividends, and interest payments from the *Investor's Monthly Manual* (IMM) and the *Stock Exchange Daily Official List* (SEDOL).

The biggest challenge in every event study is how to model the expected returns in equation (1). In our analysis, we have employed the conventional Capital Asset Pricing Model (CAPM), which was initially introduced by Sharpe (1964) and Lintner (1965) in the

[34] For a general discussion about events studies and an explanation of the difference between short- and long-horizon event studies see: MacKinlay (1997); Kothari and Warner (1997, 2007); Barber and Lyon (1997). Our methodology follows the long-horizon event study approach of Chambers et al. (2015), which addressed Keynes' portfolio performance.

[35] We follow Barber and Lyon (1997) using simple arithmetic returns in our event study calculations, which lead to unbiased long-run abnormal returns, as opposed to continuously compounded returns.

wake of Markowitz's portfolio theory in the 1950s. According to this model, the expected return $E(R_i)$ of asset *i* is given by the following equation:

$$E(R_i) = R_f - \beta_{iM} \cdot \left[E(R_M) - R_f\right] \quad (3)$$

$R_f$ is the risk-free rate, $R_M$ the return of the market portfolio, and $\beta_{iM}$ is the so-called market beta of asset *i*, which is the core element of CAPM. Beta captures the covariance risk of asset *i* measured relative to the average covariance risk of all market assets, which is just the variance of the market return. The key insight of the model is that each security is expected to be rewarded for the risk it contributes to the market portfolio – the so-called systematic risk. According to equation (3), for a given beta and risk-free rate, the expected return of risky asset *i* hinges upon the expected return of the market portfolio $E(R_M)$. Applying CAPM thus requires a market return, which is based on a market index. Our market portfolio is described in Appendix 4.

The CAPM model has been widely used in economic history. Edelstein (1982) was the first to apply the model in the 1970s to estimate the risk-adjusted returns of non-domestic securities, using annual returns from a large sample of IMM securities.[36] Since then, the digitalization of the IMM by Yale University's International Center for Finance (ICF) has made it much easier to work with IMM data as well as monthly returns instead of annual returns.[37] Grossman (2015) used the CAPM to analyse the performance of regional indices based on an index of all IMM ordinary shares using annual returns. Campbell et al. (2021) adopted the same methodology using an index of monthly equity returns (including both ordinary and preferred shares), while Acheson et al. (2020) used a three-factor model with the same index of monthly equity returns.

Our approach to market indexing offers a synthesis of the previous studies. Pre-WWI financial markets were dominated by corporate and government bonds. We believe that the market index should reflect this. We thus follow Edelstein's approach and construct an index that includes ordinary shares, preference shares, and bonds in a way that reflects the overall market structure in terms of different security types and sectors. Following more recent literature, we use monthly returns, which is also more appropriate for the kind of research

[36] Edelstein's dataset has been used until today in economic history research. See Goetzman and Ukhov (2006), Mitchel; et al. (2011), Sotiropoulos and Rutterford (2019).
[37] There is a fast-growing list of studies using IMM related returns. Besides the studies mention in the main test, see also Hombeeck (2020) and Rönnbäck and Broberg (2019).

questions we are trying to tackle in this study. Appendix 4 shows in detail the composition of our market portfolio. Appendix 5 compares the nominal value composition of our market portfolio to the structure of the securities listed on the LSE.[38]

The main idea behind equation (1) is the following. Over a given period *T*, the BHAR is the difference between the *actual* cumulative performance and the *expected* (or "normal") cumulative performance, which is unconditional on the event taking place but conditional on other information – in our case the movement of the market, according to the CAPM. If the event does not have any impact on a sample of securities, the distributional properties of the BHARs can be used to draw inferences over any period *T*. When the sample of securities is drawn randomly from a normal distribution, the parametric test statistic follows a Student's *t*-distribution under the null hypothesis that the event has no impact.

There has been a lot of discussion about the distributional assumptions required for this procedure. There are two caveats in our analysis that may affect the parametric test statistics. First, the size of the samples is relatively small (32 banks, 29 investment trusts). Second, there is a clustering effect as the event window is the same, which implies that covariances of BHAR will probably not be zero. This is why in our calculations we employ the skewness-adjusted t-test suggested by Lyon, Barber, and Tsai (1999), which updated the earlier analysis of Johnson (1978) (see also Chambers et al., 2015 for the same approach).

This long-horizon event methodology is more appropriate to capture the long-term effect that the Baring crisis had on the investment trust sector, as shown in Figure 4. At the same time, many studies have argued that the BHAR model reflects better the actual investor behaviour (in relation to the conventional cumulative abnormal return model, which is more appropriate for shorter term event studies see Ritter 1991; Barber and Lyon 1997). The principle behind the BHAR is much more relevant to investor behaviour during the time of investigation, in which Victorian investors had developed a long-term buy-and-hold approach

[38] Our market portfolio includes ordinary and preferred shares (equity) as well as bonds, reflecting the market in terms of paid-up nominal value. This structure makes more sense in a period in which equity was traded alongside corporate and government debt while investors adopted a buy and hold strategy with no short selling. Today, the academic community has moved beyond a single-factor performance measure, but there is evidence that the CAPM remains strong in capturing investor behaviour. For a summary of discussion about the CAPM see Fama and French (2004) and Elton and Gruber (2020). CAPM is popular because it offers a simple and theory-based model to measure the relationship between expected return and risk. Its wide practical acceptance is in stark contrast to its empirical record in academic research, although there are still arguments to defend it (Sharpe, 2007; and Roll, 1977). Interestingly enough, recent research shows that the CAPM is more successful in explaining investor behaviour than the multi-factor models (see Berk and van Binsbergen, 2016; Barber et al., 2016). There are also several practical complications in using multi-factor models: asset valuation factors are often highly correlated, providing biased estimations and dubious forecast value (Sharpe, 2007; Michaud, 1990).

to investment (Sotiropoulos & Rutterford, 2019). The BHAR event study methodology has been used in relevant research in economic history by Chambers et al. (2015), assessing Keynes's asset management in the 1930s.

The standard caveat applies to our calculations. Any statistical inference based on a model for expected returns – such as the CAPM – is essentially a joint hypothesis test. The statistical results hold under the assumption that the model is correct. However, the opposite may also be true. Statistical results may be biased if the model does not adequately capture expected returns. As mentioned by Edelstein, who was the first to introduce a CAPM in the discussion of financial returns for this period: "the model involves a number of rather stringent assumptions concerning investor preferences, the extent of investor agreement, and market institutions, assumptions that were met only crudely by the UK capital market 1870-1913" (Edelstein, 1982, p. 336). In our event study analysis, the CAPM has the benefit of reducing the variance of abnormal returns (removing the portion of the return that is related to the variation of the market return). So, despite its limitations, there is some clear gain in using the CAPM.

**Appendix 4.** The market portfolio.

**Government**

[bond] - Argentina 5% Bonds of 1884
[bond] - Argentina 6% Railway Loan of 1881
[bond] - Brazil 4.50% Gold Loan of 1879
[bond] - Buenos Aires 6% Bonds of 1882-1886
[bond] - Buenos Aires 6% Bonds of 1883
[bond] - Canada 4% Bonds of 1874-5-6
[bond] - Cape of Good Hope 4.50% Bonds of 1873-1878
[bond] - Ceylon 4% Bonds of 1880
[bond] - Chile 4.50% Loan of 1887
[bond] - China 6% Bond of 1885 Series A
[bond] - Costa Rica 5% A Bonds
[bond] - Entre Rios 6% Bonds of 1886
[bond] - Fiji 4.50% Bond of 1881
[bond] - Greece 5% Loan of 1881
[bond] - Hawaii 6% Bond
[bond] - India 3% Stock
[bond] - Italy 5% Maremmana Railway Bonds of 1862
[bond] - Japan 7% Bond of 1873
[bond] - Louisiana 4% Stamped Bonds
[bond] - Mexico 6% Consolidated Bonds
[bond] - New South Wales 4% Inscribed Bonds of 1885
[bond] - Quebec 5% Bonds of 1883
[bond] - Russia 4% Nicholas Railway bonds of 1867-1869 Redeemable 1949
[bond] - South Australia 6% Stock Redeemable 1913-1918
[bond] - Spain 5% Quicksilver Mortgage of 1870
[bond] - Turkey 5% Customs Loan
[bond] - Turkey 5% Ottoman Deferred Bonds of 1877
[bond] - Uruguay 3.50% Bonds
[bond] - Uruguay 6% Sterling Loan of 1888
[bond] - Venezuela 4% New Consolidated Bonds
[bond] - Victoria 4.50% Bonds of 1879

**Railways**

[bond] - Alabama Great Southern Railway Co. 6% 1st Mortgage Redeemable 1908 (London)
[bond] - Alagoas Railway Co. Ltd. 6% Debentures
[pref ] - Algeciras (Gibraltar) Railway Co. Ltd. 5% Preferreds
[bond] - Alleghany Valley Railway Co. 7% 1st Mortgage Bond
[bond] - Arauco Railway Co. Ltd. 5% 1st Mortgage Debenture
[bond] - Baltimore & Ohio Railroad 5% Bonds Redeemable 1925 (London)
[bond] - Birkenhead Railway Co. 4% Perpetual Guaranteed Bonds
[bond] - Bombay Baroda and Central India Railway Co. 5% Guaranteed Debenture
[ord ] - Brazil Great Southern Railway Ltd.
[pref ] - Buenos Aires & Pacific Railway Co. Ltd. 7% Preferred
[bond] - Burlington Cedar Rapids and Northern Railroad of Iowa 5% 1st Mortgage Debenture (London)
[pref ] - Caledonian Railway Co. Inc. 4% 2nd Consolidated Preferred of 1887
[bond] - Canada Central Railway Co. 5% 1st Mortgage Bonds
[ord ] - Central Argentine Railway Ltd. Ordinary
[bond] - Central Pacific and California Railroad 6% 1st Mortgage Bonds
[ord ] - Central Uruguay Railway Co. of Montevideo Ltd. Ordinary
[bond] - Chicago & North Western Railroad 5% Sinking Fund Debenture (London)
[bond] - Chicago Burlington & Quincy Railroad 5% Funded Bonds (London)
[bond] - Chicago Milwaukee & St. Paul Railroad (Southwest Division) 6% 1st Mortgage Bonds (London)
[bond] - Chicago Milwaukee & St. Paul Railroad 7% 1st Mortgage Bonds Redeemable 1902 (London)
[bond] - Cordoba and Rosario Railway Ltd. 5% Debentures
[bond] - Costa Rica Railway Ltd. 6% 1st Mortgage Debenture
[ord ] - Delhi Umballa Kalka Railway Ltd.
[bond] - East Argentine Railway Ltd. 6% Debenture Stock
[bond] - East Indian Railway Ltd. 4% Participating Deferred Anuity
[ord ] - Emu Bay and Mount Bischoff Railway Ltd.
[bond] - Galveston Harrisburg & San Antonio Railroad 6% 1st Mortgage Debenture
[bond] - Grand Trunk Buffalo and Lake Huron Railway 5.25% Bonds
[pref ] - Grand Trunk Railway Co. of Canada 4% 3rd Preferred
[ord ] - Great Eastern Railway Co. Colchester Stour Valley Sudbury & Halstead Branch Ordinary
[ord ] - Great Northern of Ireland Railway Co. Londonderry and Enniskillen Branch Ordinary
[ord ] - Highland Railway Co.
[bond] - Interoceanic Railway of Mexico Ltd. 6% Mortgage Debenture
[pref ] - Lancashire & Yorkshire Railway Co. 4% Consolidated Preferred
[bond] - London & North-Western Railway 4% Consolidated Guaranteed Debenture
[pref ] - London & South-Western Railway 4% Consolidated Preferred

[pref ] - London Brighton & South Coast Railway 6% Preferred Ordinary

[ord ] - London Brighton & South Coast Railway Ordinary

[pref ] - London Chatham & Dover Railway 4.50% Arbitration Preferred

[ord ] - London Chatham & Dover Railway Arbitration Ordinary

[bond] - Louisville & Nashville Railroad 6% Mortgage Bonds Redeemable 1930

[bond] - Madras Railway Co. 5% Guaranteed Debenture

[pref ] - Manchester Sheffield & Lincolnshire Railway 5% Convertible Preferred of 1876

[pref ] - Metropolitan District Railway Co. 5% Preferred

[bond] - Metropolitan District Railway Co. 6% Debenture

[bond] - Mexican Railway Co. Ltd. 6% Perpetual Debenture

[pref ] - Mexican Railway Co. Ltd. 8% 1st Preferred

[pref ] - Midland Railway Co. 4% Consolidated Guaranteed Preferred of 1875

[bond] - Montreal and Champlain Railroad 5% 1st Mortgage Bond

[bond] - Moscow-Jaroslaw Railroad 5% Guaranteed Bond

[bond] - New Brunswick Railway 5% 1st Mortgage Sterling Bonds

[pref ] - New York Lake Erie & Western Railroad 6% Preferred (London)

[bond] - New York Lake Erie & Western Railroad 7% 1st Consolidated Mortgage Funded Coupons Bonds Redeemable 1920 (London)

[bond] - New York Pennsylvania & Ohio Railroad 6% Prior Lien Bonds Redeemable 1895 (London)

[bond] - Norfolk & Western Railroad 6% General Mortgage Bonds Redeemable 1931 (London)

[pref ] - Norfolk & Western Railroad 6% Preferred (London)

[pref ] - North-Eastern of Uruguay Railway Co. Ltd. 7% Preferred

[pref ] - North-Eastern Railway Co. 4% Consolidated Preferred

[bond] - North-Eastern Railway Co. West Hartlepool 4% Debenture

[pref ] - North British Railway Co. 4% Consolidated Preferred Stock No. 2

[ord ] - North London Railway Co.

[ord ] - North Staffordshire Railway Co.

[pref ] - North West Argentine Railway Co. 7% Preferred

[bond] - Northern of Spain Railways 3% Priority Debenture

[bond] - Northern Railway Co. of Canada 5% 1st Mortgage Bond

[bond] - Panama Railroad Co. 6% Subsidy Bonds Redeemable 1910 (London)

[bond] - Piraeus Athens & Peloponnesus Railway Co. 6% 1st Mortgage Bonds

[bond] - Royal Sardinian Railway Ltd. 3% Obligations Series B

[bond] - Sagua la Grande Railway 7% Obligations

[bond] - Sao Paulo Railway 5.50% Perpetual Debenture

[ord ] - Smyrna & Cassaba Railway

[bond] - Smyrna & Cassaba Railway 5% 1st Mortgage Debenture

[bond] - South-Eastern Railway 5% Debenture Stock

[bond] - South & North Alabama Railroad 6% Bonds

[ord ] - South Austrian & Lombard-Venetian Railway

[bond] - South Pacific Railway of California 6% 1st Mortgage

[ord ] - Southern Brazilian Rio Grande do Sul Railway

[pref ] - St. Louis Bridge 6% 1st Preferred

[bond] - St. Louis Bridge 7% 1st Mortgage Gold Bonds

[ord ] - Taltal Railway Ltd.

[bond] - Tamboff-Kozloff Railway 5% Guaranteed Loan

[bond] - Wabash St Louis & Pacific Railroad 6% General Mortgage Bonds (London)

[ord ] - Waterford & Limerick Railway

[ord ] - West of India Portuguese Railway Ltd.

[ord ] - Western Railway of France

**Banks**

[ord ] - Bank of Liverpool

[ord ] - Bank of Scotland

[ord ] - British Linen Bank

[ord ] - Commercial Bank of Scotland

[ord ] - Halifax Commercial Bank Ltd.

[ord ] - Hibernian Banking Company

[ord ] - Lancashire & Yorkshire Bank Ltd.

[ord ] - London & Hanseatic Bank Ltd.

[ord ] - London & Provincial Bank Ltd.

[ord ] - London & South-Western Bank Ltd.

[ord ] - London Joint Stock Bank

[ord ] - Manchester & Liverpool District Banking Ltd.

[ord ] - National Bank Ltd.

[ord ] - National Bank of Scotland Ltd.

[ord ] - National Provincial Bank of England Ltd. (?100 Par)

[ord ] - North-Eastern Banking Co. Ltd.

[ord ] - North of Scotland Bank Ltd.

[ord ] - Provincial Bank of Ireland Ltd. (?100 Par)

[ord ] - Royal Bank of Ireland Ltd.

[ord ] - Sheffield Banking Co. Ltd. (?200 Par)

[ord ] - Ulster Bank Ltd.

[ord ] - Union Bank of Manchester Ltd.

[ord ] - Union Bank of Scotland Ltd.

**Breweries & distilleries**

[ord ] - Arthur Guinness & Co. Ltd. Ordinary

[pref ] - Bass Ratcliff & Gretton Ltd. 5% Preferred

[bond] - Bieckert's Brewery Ltd. (Old) 5% Debentures

[ord ] - Birkenhead Amalgamated Brewery Ltd.

[ord ] - Cheltenham Original Brewery Ltd.

[pref ] - City of London Brewery Co. Ltd. 6% Min. Preferred

[ord ] - Distillers Co. Ltd.
[ord ] - Hodgsons' Kingston Brewery Ltd.
[ord ] - Lion Brewery Ltd.
[pref ] - Manchester Brewery Co. Ltd. 7% 1st Preferred
[pref ] - Nalder & Collyer's Brewery Co. Ltd. 6% Cum. Preferred
[ord ] - New Westminster Brewery Co. Ltd.
[pref ] - New Westminster Brewery Co. Ltd. 6% Preferred
[ord ] - Northampton Brewery Co. Ltd.
[bond] - Northampton Brewery Co. Ltd. 5% Debenture Stock

**Canals & docks**

[bond] - Birmingham Canal Navigation Co. 4% Debenture
[bond] - Birmingham Canal Navigation Co. 4% Guaranteed Bonds
[bond] - Delaware & Hudson Canal Co. 7% 1st Mortgage Bond (London)
[ord ] - Grand Junction Canal Co.
[ord ] - Hill's Dry Dock and Engineering Ltd.
[ord ] - Leeds and Liverpool Canal Co.
[ord ] - Newhaven Harbour Co. Ltd.
[ord ] - Suez Canal

**Commercial & industrial**

[ord ] - "Palmer's Shipbuilding & Iron Co. Ltd. ""A"""
[ord ] - Aylesbury Dairy Co. Limited
[ord ] - Barlow and Jones Ltd. (Old) (?8 par)
[pref ] - Bolckow Vaughan and Co. Ltd. 5% Cum. Preferred
[ord ] - British Wagon Ltd. (?10 par)
[ord ] - Consett Iron Ltd.
[ord ] - Fore Street Warehouse Co. Ltd.
[bond] - Fore Street Warehouse Co. Ltd. 4% Debenture
[ord ] - Improved Wood Pavement Ltd.
[ord ] - Milner's Safe Ltd.
[ord ] - Nobel Dynamite Trust Ltd.
[ord ] - Pearson & Knowles Coal & Iron Ltd. Ordinary
[ord ] - Price's Patent Candle Ltd.
[pref ] - Savoy Hotel Ltd. 7% Preferred
[pref ] - Sheepbridge Coal & Iron Ltd. 5% Preferred C

**Gas, electric lighting & power**

[ord ] - "Liverpool United Gas Light Co. ""A"" Shares"
[ord ] - Bombay Gas Co. Ltd. (?5 Paid)
[ord ] - Brentford Gas Co. Inc. New Stock
[ord ] - British Gas Light Co. Ltd.
[ord ] - European Gas Co. Ltd.
[ord ] - Imperial Continental Gas Association
[ord ] - Newcastle-upon-Tyne & Gateshead Gas Co.

**Financial trust, land, investment, and property**

[ord ] - "British & American Mortgage Ltd. ""A"" shares"
[bond] - Australian Mortgage Land and Finance Co. Ltd. 4% Debenture
[ord ] - British & Australasian Trust & Loan Ltd.
[ord ] - Canada Company Ltd.
[ord ] - Dalgety and Co. Ltd.
[bond] - Dalgety and Co. Ltd. 4.50% Debenture
[ord ] - Edinburgh American Land & Mortgage Ltd.
[ord ] - Hudson's Bay Co.
[bond] - Land & Mortgage Co. of Egypt Ltd. 5% Debenture
[ord ] - Mortgage Company of South Australia Ltd.
[ord ] - Natal Land and Colonization Ltd.
[ord ] - Natal Mortgage and Agency Co. of New Zealand
[pref ] - New Zealand & Australian Land Co. Ltd. 4% Cum. Preferred
[ord ] - North British Australasian Co. Ltd.
[ord ] - North British Canadian Investment Co. Ltd.
[ord ] - North of Scotland Canadian Mortgage Co. Ltd.
[ord ] - River Plate Trust Loan and Agency Limited "A"
[ord ] - Scottish Australian Investment Limited
[pref ] - Scottish Australian Investment Ltd. 6% Guaranteed Cum. Preferred
[pref ] - Trust & Agency Co. of Australasia Ltd. 5% Cum. Preferred
[ord ] - Trust & Loan Company of Canada (?5 Paid)

**Insurance**

[ord ] - "Scottish Metropolitan Assurance Ltd. ""A"""
[ord ] - Boiler Insurance & Steam Power Co. Ltd.
[ord ] - British & Foreign Marine Insurance Ltd.
[ord ] - Commercial Union Assurance Fire Life & Marine Ltd.
[ord ] - Employers' Liability Insurance Ltd.
[ord ] - Lancashire Fire and Life Insurance Co.
[ord ] - Law Fire Insurance Society
[ord ] - London & Lancashire Fire Insurance Co. Ltd.
[ord ] - Manchester Insurance Co. Ltd.
[ord ] - Maritime Insurance Ltd.
[ord ] - Railway Passengers Insurance Co.
[ord ] - Rock Life Insurance Co.
[ord ] - Royal Exchange Fire Life & Marine Insurance Co.
[ord ] - Royal Insurance Co. Ltd.
[ord ] - Scottish Imperial - Life Insurance Ltd.
[ord ] - Scottish Insurance Corp. Ltd.
[ord ] - Scottish Life Assurance Ltd.
[ord ] - Sea Insurance Ltd.
[ord ] - Standard Marine Insurance Co.
[ord ] - Union Marine Ltd. (Liverpool)

**Investment trusts**

[ord ] - American Investment Trust Ltd. Deferred Shares
[ord ] - Army & Navy Investment Trust Ltd. Deferred
[ord ] - Foreign & Colonial Government Trust Deferred
[ord ] - Foreign American & General Investment Trust Deferred
[ord ] - Globe Telegraph and Trust Ltd.
[ord ] - Mercantile Investment and General Trust Ltd.
[pref ] - Municipal Trust Ltd. 5% Cum. Preferred
[ord ] - Railway Investment Co. Ltd. Deferred
[ord ] - Scottish American Investment Co. Ltd. Ordinary

**Mines**

[ord ] - Linares Lead Mine Ltd.
[ord ] - Mason and Barry Ltd.
[ord ] - Mysore Gold Mining Ltd.
[ord ] - Rio Tinto Ltd.
[ord ] - Tharsis Sulphur and Copper Ltd. (?10 Par)

**Tea & coffee**

[ord ] - British Indian Tea Ltd.
[ord ] - Lanka Plantations Ltd.

**Shipping**

[ord ] - African Steam Ship Co. (?16 par)
[ord ] - British India Steam Navigation Ltd. (?50 paid)
[ord ] - Cunard Steamship Ltd. (?20 Paid)
[ord ] - Union Steamship Co. of New Zealand

**Telegraphs & telephones**

[bond] - Brazilian Submarine Telegraph Ltd. 5% Bonds 1st Series
[ord ] - Cuba Submarine Telegphraph Ltd.
[ord ] - Direct Spanish Telegraph Ltd.
[pref ] - Direct Spanish Telegraph Ltd. 10% Preferred
[bond] - Eastern Extension Australia & China Telegraph Ltd. 4% Debenture
[bond] - Eastern Extension Australia & China Telegraph Ltd. 5% Australian Subsidy Debenture
[bond] - Eastern Telegraph Co. 4% Irredeemable Debenture
[bond] - Eastern Telegraph Co. 5% Debenture Redeemable 1899
[ord ] - India Rubber Gutta Percha and Telegraph Works Ltd.
[pref ] - National Telephone Co. Ltd. 6% 1st Preferred
[ord ] - Oriental Telephone & Electric Co. Ltd.
[bond] - West Coast of America Telegraph Ltd. 8% Debenture
[ord ] - West India & Panama Telegraph Ltd.
[pref ] - West India & Panama Telegraph Ltd. 6% Cum. 1st Preferred

**Tramways & omnibus**

[bond] - Anglo-Argentine Tramways Ltd. 6% Debenture
[ord ] - Bristol Tramways Ltd.
[bond] - Buenos Aires and Belgrano Electric Tramways Ltd. 6% 1st Debenture
[ord ] - Calcutta Tramways Ltd.
[ord ] - City of Buenos Aires Tramways Co. Ltd. (1904) (New)
[ord ] - Dublin United Tramways Ltd.
[ord ] - Provincial Tramways Ltd.

**Waterworks**

[ord ] - Antwerp Waterworks Ltd.
[ord ] - Colne Valley Water Co. plc
[ord ] - Kimberley Waterworks Ltd.
[ord ] - Lambeth Waterworks (Company of Proprietors of) 10% Max. Dividend
[bond] - Lambeth Waterworks (Company of Proprietors of) 4% Debenture
[ord ] - Newcastle & Gateshead Water Co.
[bond] - South Staffordshire Water Co. 4% Debenture Stock
[ord ] - South Staffordshire Water Co. 7% Max. Dividend
[ord ] - Southwark & Vauxhall Water Co. 10% Max. Ordinary (?100 Par)
[ord ] - Sunderland and South Shields Water Co.

**Source:** *Investor's Monthly Manual*.

**Note:** There are 276 securities comprising the Market.

**Appendix 5.** The nominal value of the market portfolio compared to that of the London Stock Exchange at the time of the Baring crisis.

| | LSE | Our market portfolio | N |
|---|---|---|---|
| Total capitalization (£million) | 4558.60 | 437.05 | 276 |
| Empire Government (%) | 5.81 | 10.08 | 9 |
| Foreign Government (%) | 26.15 | 17.28 | 22 |
| Railways - UK (%) | 18.75 | 24.70 | 23 |
| Railways - Empire (%) | 4.92 | 11.05 | 13 |
| Railways - US (%) | 16.31 | 8.58 | 22 |
| Railways - Foreign other than US (%) | 13.08 | 8.76 | 27 |
| Banks and discount companies (%) | 1.37 | 3.64 | 23 |
| Breweries and distilleries (%) | 1.14 | 1.21 | 15 |
| Canals and docks (%) | 0.91 | 2.99 | 8 |
| Commercial, industrial, etc. (%) | 2.05 | 1.13 | 15 |
| Gas, electric light and power (%) | 0.77 | 1.46 | 7 |
| Financial, land, investment, and property (%) | 2.73 | 3.94 | 30 |
| Insurance (%) | 0.27 | 0.74 | 20 |
| Mines (%) | 0.72 | 1.49 | 5 |
| Tea, coffee, and rubber (%) | 0.04 | 0.05 | 2 |
| Shipping (%) | 0.26 | 0.47 | 4 |
| Telegraphs and telephones (%) | 0.77 | 1.03 | 14 |
| Tramways and omnibus (%) | 0.26 | 0.48 | 7 |
| Waterworks (%) | 0.37 | 0.92 | 10 |

**Sources:** *Investor's Monthly Manual* and *Stock Exchange Official Intelligence*.

**Note:** The LSE paid-up nominal value is that at the end of December 1893. The paid-up nominal value for our sample is that at the end of December 1890. The paid-up nominal value of all securities quoted on the LSE at the end of 1893 was £6,561.1 million. From this figure, we have abstracted the nominal value of British Government debt, which was £810.2 million, because Consols are used as the risk-free asset in our calculations. We have also abstracted 50% of foreign non-colonial government debt, which was £2,384.6 million because it would be close to the risk-free asset (e.g. French Rentes and Treasury bonds etc.) and did not appear in the portfolios of investment trusts.

**Appendix 6.** Different asset classes/portfolios used in our calculations.

| | **Investment trusts** |
|---|---|
| 1 | Alliance Investment |
| 2 | American Investment Trust |
| 3 | Army & Navy Investment Trust |
| 4 | Army and Navy Investment Trust |
| 5 | Bankers Investment Trust |
| 6 | Brewery and Commercial Investment Trust |
| 7 | Colonial Securities Trust |
| 8 | Consolidated Trust |
| 9 | Foreign & Colonial Government Trust |
| 10 | Foreign American & General Investment Trust |
| 11 | General and Commercial Investment Trust |
| 12 | Globe Telegraph and Trust |
| 13 | Government Stock Investment |
| 14 | Guardian Investment Trust |
| 15 | Indian and General Investment Trust |
| 16 | Industrial and General Trust |
| 17 | International Investment Trust |
| 18 | London Trust |
| 19 | Mercantile Investment and General Trust |
| 20 | Mercantile Investment and General Trust |
| 21 | Merchants Trust |
| 22 | Municipal Trust |
| 23 | New Investment |
| 24 | Omnium Investment |
| 25 | Railway Debenture Trust |
| 26 | Railway Investment |
| 27 | Railway Share Trust and Agency |
| 28 | Scottish American Investment |
| 29 | United States and South American Investment Trust |

| | **Banks** |
|---|---|
| 1 | Bank of Australasia |
| 2 | Bank of Liverpool |
| 3 | Bank of New South Wales |
| 4 | Bank of Scotland |
| 5 | British Linen Bank |
| 6 | Clydesdale Bank |
| 7 | Commercial Bank of Scotland |
| 8 | Consolidated Bank |
| 9 | Halifax Commercial Bank |
| 10 | Hibernian Banking Company |
| 11 | Ionian Bank |
| 12 | Lancashire & Yorkshire Bank |
| 13 | London & Hanseatic Bank |
| 14 | London & Provincial Bank |
| 15 | London & River Plate Bank |
| 16 | London & South-Western Bank |
| 17 | London Joint Stock Bank |
| 18 | Manchester & Liverpool District Banking |
| 19 | National Bank |
| 20 | National Bank of Scotland |
| 21 | National Provincial Bank of England |
| 22 | National Provincial Bank of England |
| 23 | North-Eastern Banking |
| 24 | North of Scotland Bank |
| 25 | Provincial Bank of Ireland |
| 26 | Royal Bank of Ireland |
| 27 | Sheffield Banking |
| 28 | Ulster Bank |
| 29 | Union Bank of Australia |
| 30 | Union Bank of London |
| 31 | Union Bank of Manchester |
| 32 | Union Bank of Scotland |

| | **Financial, Land, Property & Investment** |
|---|---|
| 1 | British & American Mortgage |
| 2 | British & Australasian Trust & Loan |
| 3 | Canada Company |
| 4 | Dalgety and Co. |
| 5 | Edinburgh American Land & Mortgage |
| 6 | Hudson's Bay |
| 7 | Mortgage Company of South Australia |
| 8 | Natal Land and Colonization |
| 9 | Natal Mortgage and Agency Co. of New Zealand |
| 10 | North British Australasian |
| 11 | North British Canadian Investment |
| 12 | North of Scotland Canadian Mortgage |
| 13 | River Plate Trust Loan and Agency |
| 14 | Scottish Australian Investment |
| 15 | Trust & Loan Company of Canada |

| | **Argentine government bonds** |
|---|---|
| 1 | Argentina 3.50% External Loan of 1889 |
| 2 | Argentina 4.50% Internal Gold Loan |
| 3 | Argentina 4.50% Sterling Bonds |
| 4 | Argentina 5% Bonds of 1884 |

| | |
|---|---|
| 5 | Argentina 5% Bonds of 1886-1887 |
| 6 | Argentina 5% Treasury Consolidation Bonds |
| 7 | Argentina 6% Bonds of 1882 |
| 8 | Argentina 6% Funding Loan |
| 9 | Argentina 6% Hard Dollar Loan of 1872 |
| 10 | Argentina 6% Railway Loan of 1881 |
| 11 | Argentina 7% National Cedulas |
| 12 | Buenos Aires 6% Bonds of 1824 |
| 13 | Buenos Aires 6% Bonds of 1870 |
| 14 | Buenos Aires 6% Bonds of 1882-1886 |
| 15 | Buenos Aires 6% Bonds of 1883 |
| 16 | Buenos Aires City 4.50% Bonds |
| 17 | Buenos Aires City 6% Debentures |
| 18 | Entre Rios 6% Bonds of 1886 |
| 19 | Entre Rios 6% Bonds of 1888 |
| 20 | Entre Rios 6% Extension Mortgage Bonds |
| 21 | Entre Rios 6% Funding Bonds of 1892 |
| 22 | Providence 5% Bonds |
| 23 | Santa Fe City 6% sterling bonds |
| 24 | Santa Fe Province 5% Bonds of 1889 |
| 25 | Valparaiso 5.50% Bonds |

| | **Argentine railway bonds** |
|---|---|
| 1 | Argentine Great Western Railway - 5% Debenture |
| 2 | Argentine North Central Railway Extension - 5% Mortgage Bonds |
| 3 | Buenos Aires & Pacific Railway - 4% Debenture |
| 4 | Buenos Aires & Pacific Railway - 5% Mercedes Extension Scrip |
| 5 | Buenos Aires & Pacific Railway - 6% 2nd Debenture |
| 6 | Buenos Aires & Pacific Railway - 7% Debenture |
| 7 | Cordoba and Rosario Railway - 5% 1st Debenture |
| 8 | Cordoba and Rosario Railway - 5% Debentures |
| 9 | Cordoba Central Limited - 5% Debenture |
| 10 | East Argentine Railway - 6% Debenture |
| 11 | East Argentine Railway - 7% Guaranteed Shares |
| 12 | North West Argentine Railway - 6% Perpetual Debenture |
| 13 | Santa Fe & Cordoba Great Southern Railway Construction - 5% Debenture |
| 14 | Santa Fe & Cordoba Great Southern Railway - 5% Debenture |
| 15 | Santa Fe Western Railway - 7% Bonds |
| 16 | Villa Maria & Rufino Railway - 5% Debenture |

**Sources:** *Investor's Monthly Manual* and *Stock Exchange Daily Official List*.

**Note:** Unless indicated, all portfolios comprise ordinary shares.

**Appendix 7.** Portfolio transactions in Argentina between 1890 and 1896.

| | Purchases | | | Sales | | |
|---|---|---|---|---|---|---|
| | **Mean** | **Median** | **St. dev.** | **Mean** | **Median** | **St. dev.** |
| All | 19.09 | 14.14 | 18.39 | 14.56 | 12.32 | 8.40 |
| Latin America | 6.07 | 5.81 | 4.28 | 4.28 | 3.69 | 3.27 |
| Argentina | 3.82 | 3.43 | 2.37 | 2.80 | 2.33 | 2.12 |
| Argentina - ordinary shares | 3.35 | 2.87 | 2.33 | 2.53 | 2.12 | 2.11 |
| Argentina - preferred shares | 3.29 | 3.02 | 2.16 | 2.35 | 2.12 | 1.72 |
| Argentina - bonds | 1.05 | 0.63 | 1.56 | 0.79 | 0.41 | 1.50 |
| Argentina - Government (central and local) | 2.73 | 2.53 | 2.18 | 2.07 | 1.83 | 1.89 |
| Argentina - Finance sector | 3.72 | 3.27 | 2.40 | 2.65 | 2.32 | 2.12 |
| Argentina - Industrial, commercial, and agricultural companies | 3.63 | 3.32 | 2.27 | 2.71 | 2.17 | 2.04 |
| Argentina - Utilities | 3.44 | 3.24 | 1.99 | 2.52 | 2.12 | 1.89 |
| Argentina - Railways | 1.75 | 1.24 | 1.68 | 1.28 | 0.98 | 1.53 |

**Source:** Our dataset.

**Note:** Our calculations are based on the reported nominal portfolio values. The transactions are summarized by financial year, investment trusts did not all have the same reporting year-end month in which they disclosed their portfolio holdings.