

British Investment Trusts 1868–1928: Portfolio Diversification and the Beginnings of Institutional Investment



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1 Introduction

UK investment toward the end of the nineteenth century was heavily influenced by a reduction in the supply of officially listed national debt. Yields on British government consols fell below 3% by the last decade with only a few alternatives available to risk-averse investors, such as trustees. For example, the risk of investing in domestic corporate securities was high: in the 1860s and 1870s, after the introduction of limited liability regulation in the 1850s and 1860s, two out of three newly incorporated companies failed within 3 years. By 1914, the average life of a joint stock company was still only 10 years (Michie, 1981). Many publications aimed at individual investors urged them not to invest in ordinary shares of companies at all (Rutterford, 2004). Investors did, though, have the option to invest overseas, in foreign government, municipal, provincial, or corporate securities. These securities typically had higher yields than did equivalent domestic securities (Sotiropoulos & Rutterford, 2018). But overseas investment was also riskier, as evidenced by the number of foreign bondholder associations which lobbied on behalf of British bondholders whose bonds were in default (Flandreau, 2013). Despite such risks, by 1913, British investors' overseas investments were more than double those of any other country and amounted to the sum of £3.1 billion.¹

At that time, British investors concentrated primarily on income yield as a valuation tool (Rutterford, 2004). The level of risk was priced in the market yield, with the yield on consols that of the British risk-free benchmark. The riskier the

¹The estimation is from Platt (1986, p. 60).

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security, the higher the required yield, or as Beeton (1870, p. 26) put it, “The higher the rate of interest, the worse the security.”² Once the required level of yield had been determined, the investor could minimize risk in a number of ways. The first was to avoid investing in categories of security that were considered too high up the risk scale, that is, the higher yield being deemed not worth the risk of interrupted income and/or capital loss. The second was to spend time investigating each security in depth, by studying the accounts and reading newspapers or by consulting advisers.³ The third method of reducing risk was to spread risk across different securities, via explicit diversification. The ability to diversify was a game changer for the developed financial markets in the wake of limited liability.

This chapter looks at how the now well-known institutional investment approaches to adding value, such as diversification, evolved in the late nineteenth century and first half of the twentieth century. The chapter explores how ways to optimize returns while minimizing risk for long-term investors were developed, promoted through financial advice manuals and texts, and put into practice by investment trusts from the 1860s onward. We document how the concepts of diversification and yield enhancement dominated the investment discourse and how investment trusts offered individual investors a low-cost means of maximizing return relative to risk. We also show how investment trusts implemented a range of investment strategies—in particular, active asset allocation, portfolio diversification, stock selection, market timing, and leverage—which form the bedrock of investment strategies today.

2 Risk Reduction Through Diversification

Spreading risk across a number of securities was widely promoted as early as the 1870s. Advisers offered recommendations as to how to combine a number of investments in a portfolio and thereby improve the risk return trade-off. *Chadwicks’ Investment Circular* argued in 1870 (28 December, p. 30):

We hold that, by a careful selection from the various media of investment, very remunerative returns in the shape of interest may be obtained; while, by a proper division of risks, not only may the *security* for the principal be rendered perfectly satisfactory, but there may be a good prospect that the invested capital will steadily increase in value.

Similar advice was also offered in *Beeton’s Guide Book to the Stock Exchange and Money Market*, published in the same year (Beeton, 1870, p. 26):

²For further discussion of how investors, in particular British investors, valued securities before World War I, see Rutterford (2004).

³Another way to improve information flow was to live close to the company’s headquarters, area of operations, and/or location of annual general meetings. For more discussion on local investment, see Rutterford et al. (2017).

If an investor wishes to secure a high rate of interest, he should divide his capital among a number of stocks that can be bought to pay a high rate of interest—the more the better. Supposing he has £500 to invest, let him invest £100 in each of the following—Turkish, Italian, Spanish, Egyptian, Guatemalan, or Argentine. By dividing his capital in this way, the investor reduces risk to a minimum, as it is unlikely that all these countries could stop paying their interest, although it is not unlikely that anyone might do so.

Although appearing to limit investor choice to foreign government bonds, *Beeton's Guide* suggested that investors choose from a wide range of countries and types of security but, as with Chadwicks, preferred a mix of low-yield, low-risk domestic securities and higher-risk, higher-yield foreign securities. These recommendations allowed for three to five different holdings of standard—but not equal—sizes, with a minimum portfolio size of £500. The amount to be invested in each security was a function of the desired average yield.

This approach to diversification continued until the early 1900s when a key development was a more *scientific* approach to portfolio diversification. Instead of adding as many risky securities as required to generate the required yield, some investors began to realize that a more top-down approach to portfolio construction was desirable, targeting a particular level of yield and minimizing capital risk through the choice of relatively uncorrelated securities which operated in different geographical regions. Such a diversification strategy was developed by Henry Lowenfeld, author of numerous investment texts, and actively promoted by the *Financial Review of Reviews*, a monthly magazine first published in 1905 (Rutterford & Sotiropoulos, 2016). Lowenfeld (1909, p. 11) recommended the following simple rules for portfolio diversification:

The safety of Capital is obtained by dividing it (1) equally among a number of sound stocks (2) of identical quality, but (3) every stock held must be subject to an entirely different market and trade influence.

Lowenfeld's approach differed from those of Chadwicks and Beeton in two key ways. First, he required equal amounts⁴ to be invested—an approach we now call “naïve diversification.”⁵ Second, he proposed a total of ten securities (less for the less wealthy investor) which would be subject to different risks since they would be spread across the entire globe or, in modern parlance, a “top-down” approach. To achieve this, Lowenfeld split the world into nine regions: Britain, British colonies, Asia, Africa, North, Central and South America, and North and Southern Europe

⁴The emphasis on nominal rather than market value reflected the relative disregard for capital gain or loss compared with yield as a source of return. Some publications were unsophisticated as to the number of securities to choose and the difference between nominal and market values as far as diversification was concerned. For example, the weekly *Investors' Review*, in 1905, recommended a model trust with four securities of nominal value £100 each, with market prices varying from £102 ½ for Buenos Ayres Railway Debentures paying 5% nominal to £280 for Nobel Dynamite shares paying 10% nominal yield (11 November, p. 594).

⁵However, some allowance was made for the amount of money to be invested: for example, Lowenfeld recommended holding 5–6 stocks for an investment of £500–1000 and 8–10 stocks for £5000–20,000 (Lowenfeld, 1907, p. 85).

with a tenth category being “international” securities such as shipping, telegraph, and marine insurance (see Lowenfeld, 1907). Thus, a maximum of two-tenths of the portfolio was to be invested in Britain and its colonies. As with Beeton and Chadwicks, though, the securities would be chosen to achieve a particular desired weighted average yield, for example, 4, 5, or 6%. In this way, the diversification question was translated into investing equal amounts in a range of securities which ensured a so-called geographical distribution of capital.

3 The Role of Investment Trusts in Portfolio Diversification

For investors who did not have enough savings to be able to build diversified portfolios themselves, investment trusts provided the opportunity to acquire rights to a share of a diversified portfolio held in a trust. The first investment trust, Foreign and Colonial Government Trust (F&C) was launched in the United Kingdom in 1868 (see Rutterford, 2009, pp. 161–162). Promoted by Philip Rose, Disraeli’s personal financial adviser and a partner in a law firm (Chambers & Esteves, 2014), and hence familiar with the legal structure of trusts, the trust form was initially preferred to that of the limited liability company to avoid “the now unpopular name of the company” (McKendrick & Newlands, 1999, p. 26).⁶ Only 2 years earlier, in 1866, the Overend Gurney Bank—and a further six banks—had failed (Turnbull, 2018).

The principle of diversification was a key investment objective. For example, the first F&C prospectus (cited in Powell, 1915, p. 469), seeking to raise £1 m, stated:

The object of this trust is to give the investor of moderate means the same advantages as the large capitalist in diminishing the risk of investing in Foreign and Colonial Government stocks, by spreading the investment over a number of different stocks and reserving a portion of the extra interest as a sinking fund to pay off the original capital.

A minimum amount of diversification was guaranteed by requiring that the percentage holding in any one stock was a maximum of 10% and hence that the minimum number of holdings was ten. In the initial portfolio, outlined in the prospectus, there were to be 18 holdings in total, of which three were at the maximum holding of 10%, or £100,000 in this case: Spanish new three per cents, Peruvian five per cents, and Italian five per cents (1861). The holdings were not equal in size, ranging from 1.5% to 10% of the portfolio. The idea was to target a specific market yield, by putting together a judicious mix of domestic and foreign securities (Rutterford, 2009, p. 159). As *The Times* (1868, 20 March, p. 10) commented:

The scheme in its principle supplies a want that has long been felt, since it not only gives to that large number of persons who are always disposed to encounter the risk of foreign

⁶The failure of the newly floated Overend Gurney Bank in 1866 had led to a loss of confidence in the public company. The chairman of the trust, Lord Westbury, had, as attorney general, carried through the Fraudulent Trustees Bill in 1857 and the Bankruptcy and Insolvency Bill in 1861.

investments the means of restricting that risk to the smallest amount, but will also to a great extent provide an insurance against it by limiting the yearly dividends to a sum which, with the gains from sinking funds, will admit of an accumulation to meet any untoward contingencies.

In the case of F&C, the diversification was spread across eighteen different foreign and colonial government bonds, whose coupons ranged from 3% to 8% and whose yields ranged from 5.1% for New South Wales stock to 13.7% for Turkish five per cents. These were certainly not all risk-free investments. Indeed, the proportion of the portfolio to be invested in colonial securities—there were no domestic securities—was a paltry 5% of the total. This was much less than Chadwicks' or Beeton's recommendations to individual investors, as we discussed above. The remaining 95% of the portfolio included some high-risk choices. For example, *The Economist* referred to Austria as a “dishevelled” state and Italy as “inchoate” (cited in McKendrick & Newlands, 1999, p. 37). In 1868, the Turkish five per cents were priced at £36¹/₈. They rose to £53 in 1873, a rise of 31.8%, only to fall back to £39¹/₂ a year later (Scratchley, 1875, p. 16). Trustees and investors expected defaults; as early as 1871, F&C was reporting nonpayment of interest on Turkish six per cents of 1865, although the chairman was confident of payment as “he had always found the Turks very honourable in their commercial dealings” (McKendrick & Newlands, 1999, p. 42).

However, there was provision for the setting up of a reserve to cover irrecoverable losses. The trustees promised investors a nominal yield of 6% on the certificates being issued, equivalent to a market yield of 7% on the issue price of £85 per cent. On the other hand, the portfolio described in the prospectus would provide a weighted average market yield of exactly 8%. The 1% difference between the yield to be received and the yield paid out (8%–7%) was to be retained as a reserve against unforeseen events and used as a sinking fund to pay off the certificates using annual drawings. The securities listed in the F&C portfolio were undated government bonds which could mature at any time through a drawing, as in a lottery, but otherwise were expected to be still outstanding after the closure of the trust; this was to be in 24 years' time. With 17 out of 18 of the bonds in the portfolio priced below par, early redemption would generate a capital gain which could be used in the event of a bond default or provide a surplus payable to certificate holders on closure of the trust. Thus, investors would have the benefits of diversification, the buildup of reserves against possible losses, and some possibility of capital gain. These benefits, together with relatively low-cost professional management, were attractive to all wealth levels.

The popularity of the F&C issues (there were four in total by 1872) led to a rash of imitations of what became known as “average investment trusts,” that is, trusts aiming to benefit from diversification (Scratchley, 1875, title page). For example, The Share Investment Trust, floated in 1872, drew directly on the success of the F&C:

The principle of distribution of risk by embodying in a Trust a number of undertakings, yielding high rates of interest, introduced by the F&C Trust, has been fully recognised to be

of great advantage to investors [...]. The present scheme proposes to embrace a number of well-selected industrial undertakings yielding high rates of interest.⁷

For the Share Investment Trust, the structure was the same as for F&C, but the portfolio preference was for domestic securities rather than foreign government bonds, including shares as well as bonds in “submarine cables, tramway companies, iron and engineering companies, telegraph and construction companies, and other industrial undertakings yielding high rates of dividend.” Preference shares offered higher yields than bonds to reflect their higher risk, with ordinary shares the riskiest. The Scottish American Trust was launched in 1873 by Robert Fleming, who had experience of investing in North America. He preferred instead to invest 80% of Scottish American’s portfolio in railroad securities. Over time, two centers for investment trusts developed, Scotland (in particular, Aberdeen, Glasgow, Edinburgh, and Dundee) and London (Sotiropoulos et al., 2019). Thus, although the “averaging” principle was the same for all such trusts and the investment objective of achieving higher expected yields for their investors was the same for all trusts, very different asset allocation decisions were taken to achieve these aims by the directors of individual trusts, with the choice depending largely on the timing of the issue and the individual preferences of the managers. A major change, however, was the switch from trust status to corporate status which took place in the 1870s and 1880s (Rutterford, 2009).

4 Investment Trusts as Companies

There were three important differences between investment trusts (hereafter, ITs) structured as trusts and those structured as companies. One key difference was the ability of incorporated trusts to have a capital structure—that is, fund the portfolio—with more than one type of security. ITs took advantage of this opportunity on conversion from trusts to companies, with very few having just ordinary shares. For example, on conversion of the four F&C trusts into a single company in 1879, certificate holders received both preferred stock and deferred stock in lieu.⁸ Many trusts chose to have debenture stock as well as preferred and deferred (ordinary) as this reduced the overall cost of capital still further—or, rather, enhanced the potential dividend to ordinary shareholders. For example, the chairman of the Railway Debenture Trust commented at the 1875 Annual General Meeting that every increase of £500,000 in the borrowed money at 5% interest, with an additional ½% for a sinking fund, would add 1½% to the dividend to the share capital, so that with borrowed capital of £2,000,000, they would be able to pay a steady dividend of 10% and the shares would be worth a considerable premium (Scratchley, 1875, p. 38). But

⁷Prospectus, Guildhall Library, MS 14235.

⁸Essentially 5% cumulative preference shares and ordinary shares (McKendrick & Newlands, 1999).

the objective was the same. Given a weighted average portfolio yield, the problem was how could the capital structure be tweaked in order to maximize the dividend yield on the ordinary shares. A common target, as for the Railway Debenture Trust, was 10% yield for the ordinary shareholders, substantially more attractive than consols.

Table 1 shows the size and capital structure of both English and Scottish ITs throughout the period. The average size of these ITs was not very different for English and Scottish ITs and rose only slowly—from just under £1 m to £1.5 m—between 1880 and 1929. There were also regional preferences with respect to capital structure. Scottish ITs preferred short-term debentures of, say, 3–7 years, whereas English trusts opted for long-term debentures of up to 50 years, locking in low rates until after WWI. Scottish ITs also relied more on debentures than did their English counterparts; Scottish debentures represented 40% of total capital compared to 25% for English ITs in 1929.⁹ This led to higher leverage for Scottish trusts, with ordinary shares representing less than one-quarter of nominal capital as compared to more than one-third for English trusts in the same year. However, all trusts increased the amount of leverage—and reduced their cost of capital—over time. As ITs became more established, directors felt able to increase the borrowing powers and hence leverage ratios for new ITs. For example, the articles of the Scottish Investment Trust allowed for a 50/50 preferred/deferred (ordinary) split and debenture issues up to 50% of capital; the second Scottish Investment Trust had a 60/40 preferred/deferred split and a 100% borrowing limit (Robinson, 1923, p. 19).

A second major difference between ITs as trusts and ITs as companies was that the finite life of a trust was replaced by the unlimited life of investment trust companies.¹⁰ In strategic terms, unlimited life meant that trustees—turned directors—could reinvest the proceeds of bond redemptions either on maturity or if bought in early (e.g., US corporate bonds often had sinking funds and annual random drawings so that many bonds were redeemed early). Any capital gains on realization were used to create reserves. These reserves could be “outer” reserves, visible on the balance sheet, or off-balance-sheet “inner” reserves which were used to write down existing or new holdings to a lower book value (Sotiropoulos et al., 2019). This meant that a portion of the net revenue could be retained and reinvested (accumulated “at compound interest”), in effect setting up a reserve to cope with potential future losses (Kilborne, 1925, p. 170). These reserve cash inflows also gave IT directors the ability to change their portfolio strategy while remaining fully invested in the markets. These cash flows thus forced directors of ITs to actively manage their portfolios over time.

⁹English ITs were later criticized for not having included options to redeem early for their long-term debentures, preventing them from benefiting from the lower interest rates of the 1920s and 1930s (Investors' Chronicle, 1949, p. 158).

¹⁰Many ITs, including F&C, are still in existence today.

Table 1 Size and capital structure of British investment trusts

	Investment trusts			Average paid-up capital (£ m)			Average capital structure (% of paid-up capital)					
	Total	English		Total	English		English			Scottish		
		English	Scottish		Scottish	Ordinary	Preferred	Debenture	Ordinary	Preferred	Debenture	
1880	9	5	4	0.837	0.991	0.646	67.5	20.1	12.4	80.4	0.0	19.6
1885	12	8	4	1.118	1.344	0.667	57.9	29.9	12.2	80.4	0.0	19.6
1890	46	37	9	1.075	1.153	0.757	46.6	29.9	23.5	50.3	18.1	31.6
1895	50	40	10	1.122	1.173	0.920	40.8	32.7	26.5	45.6	19.9	34.4
1900	53	41	12	1.082	1.148	0.857	41.1	32.2	26.7	48.0	19.3	32.7
1905	58	44	14	1.083	1.132	0.932	40.9	33.3	25.8	43.3	25.8	30.9
1910	65	46	19	1.133	1.211	0.946	39.6	32.2	28.2	40.1	25.0	35.0
1915	85	53	32	1.198	1.348	0.950	39.0	32.8	28.2	33.0	32.8	34.2
1920	90	55	35	1.242	1.419	0.964	40.6	31.7	27.7	32.2	34.2	33.6
1925	114	68	46	1.311	1.411	1.162	41.5	32.1	26.5	28.2	34.3	37.5
1929	186	112	74	1.502	1.490	1.521	37.6	37.9	24.6	24.2	36.2	39.6

Notes: The British investment trust companies are identified by the three studies of Glasgow (1930, 1932, and 1935). Our calculations of capital structure are based on data collected from Glasgow (1935) and the *Stock Exchange Yearbook*

The calculations in the table are for all UK investment trusts, as they were defined in the text

5 Corporate Governance

The third difference between trust and company ITs was that of corporate governance. Trustees for life responsible for the original trusts were replaced, in some cases gradually, by company directors.¹¹ ITs became companies, required to produce accounts, report to the shareholders, and obtain shareholder approval for dividend payments and issues of new capital. They were also listed on the London Stock Exchange and/or Scottish stock exchanges and were thus required to adhere to stock exchange regulations.

From the start, ITs required management. Sotiropoulos et al. (2019) show how the main professions from which directors were drawn were merchants, lawyers, accountants, and directors with links to particular asset classes, e.g., Argentinian or US railways, and brokers familiar with stock markets. As Cassis (1987) pointed out, in 1890, Lord Eustace Cecil was chairman of a railway company and director or chairman of five ITs, while, in 1912, Lord St David's was a director or chairman of six ITs as well as of six overseas companies (Cottrell, 2012). Experts in trusts and portfolio management for individuals, they had the skills required to create diversified portfolios, devise capital structures, and buy and sell securities as needed over time.

Boards of directors were not large. For the ITs in our sample, described below, there were on average five directors for English and Scottish ITs on incorporation in 1914. Keynes, for example, was one of three directors of a London-based IT, the Independent Investment Trust, launched in 1924 to adopt a market-timing strategy related to bonds and common stock in the United States. As a result, ITs had low management costs: the norm was $\frac{1}{2}\%$ of the portfolio value including director fees (Robinson, 1923, p. 17). However, directors were often on the board of more than one IT, thereby boosting their income. The trusts did not employ specialist stock market analysts, but the boards of directors—and their contacts—included stockbrokers, lawyers, accountants, directors of insurance companies, and directors of other ITs. It was common for directors to meet regularly to decide on sales or purchases, relying on their own knowledge or that of specialist brokers or occasionally asking for or being given suggestions by shareholders (as was the case for the Share and Debenture Trust; see Rutterford, 2009).

There were numerous administrative issues to be dealt with by IT directors and managers, exacerbated by the overseas nature of much of their portfolios. Foreign bonds were often bearer; might be denominated in, say, US dollars; were bound by trust deeds relating to the security underlying the debt, such as gold or mortgages; and included sinking funds which paid for regular drawings and hence redemption of the bonds. Taxes on income from US securities were also payable. There was often no fixed maturity date for foreign government bonds, whereas corporate bonds could be called before their stated redemption date. Preferred stock and equities had no specified maturity but were subject to the risk of reconstruction or liquidation. As

¹¹ For example, this role was only abolished for F&C in 1913 (Chambers & Esteves, 2014, p. 5).

Steiner (1929, p. 6) remarked, “distance, unfamiliarity, varying currencies, regulations, business laws, and languages” meant that the individual investor did not have the skills, knowledge, and connections needed to invest across the globe. ITs, on the other hand, did have directors “trained in political and economic events” with local knowledge and financial expertise (Williams 1928, p. 28).

In addition, there was a long history of defaults by foreign issuers on bonds listed on the London Stock Exchange, and this had led to the setting up of a number of foreign bondholder associations—such as Spanish, Mexican, Greek, Peruvian, Colombian, and Venezuelan—from as early as the 1820s and 1830s (Flandreau, 2013). The powerful British Corporation of Foreign Bondholders (CFB) was founded the same year as the F&C was launched in 1868, and one director of the F&C, 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. These connections 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).

6 The Investment Trust Sample

We now turn to how these very early institutional investors managed their investment portfolios. Our aim is to explore the ITs’ investment strategies, in particular their approach to asset allocation as a means of diversification. We also examine how active ITs were in terms of enhancing returns via stock selection and market-timing strategies.

To do so, we study a sample of those investment trusts which applied the so-called averaging (diversification) principle as determined by Glasgow (1930, 1932, 1935; see notes to Table 1),¹² and that also, within the period 1886–1928, provided details of their portfolios in their annual reports and accounts. The years sampled are at 4–6-year intervals. Figure 1 shows our sample, which rises from five ITs in 1886 to 33 ITs in 1928, and compares with the total population of English and Scottish ITs. All but one of Scottish ITs and half of English ITs did not provide portfolio details. Scottish trusts did, though, provide summaries of their asset allocation strategies, rather than full details, in the Chairman’s Report (Williams, 1928, p. 10). However, comparing corporate variables, such as size, leverage, number of directors, and performance, provides no evidence that our sample of ITs which disclosed portfolio details is statistically different from those that did not in 1914 (Sotiropoulos et al., 2020). As we see in Fig. 1, the structure of our sample is an

¹²Glasgow made three exhaustive studies of average investment trusts: in England (1930), in Scotland (1932), and in both countries (1935). He excluded from his analysis investment trusts which had activities other than managing an investment portfolio.

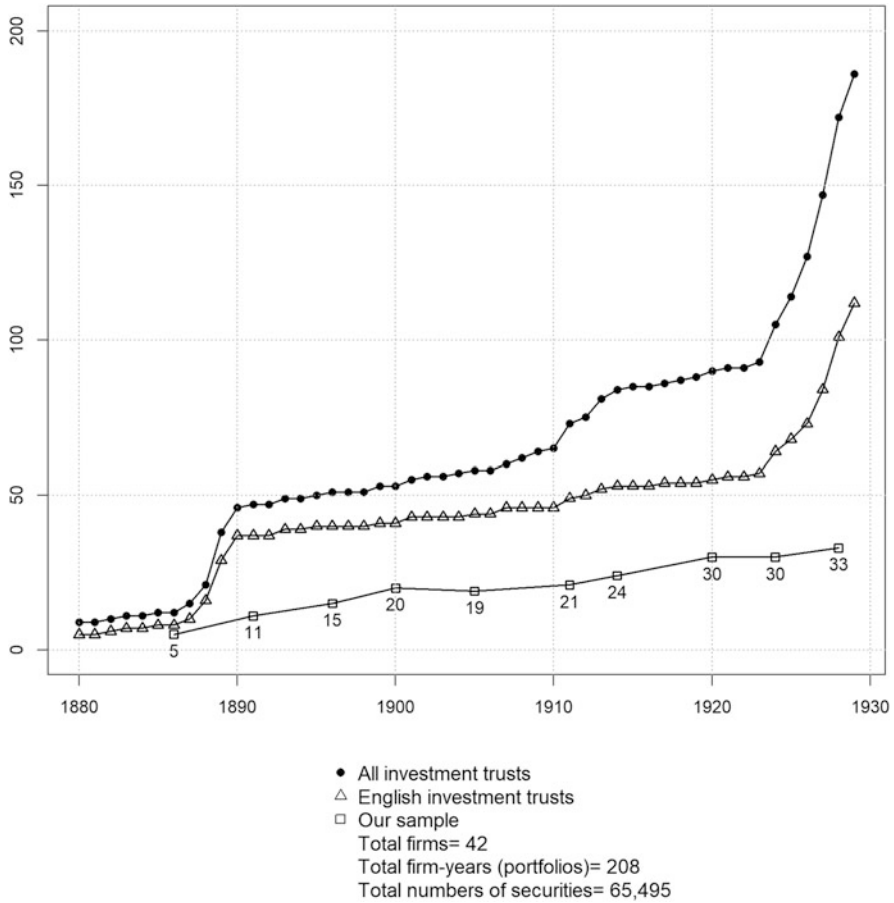


Fig. 1 Size of our sample of investment trusts with disclosed portfolio holdings (*source: our dataset*)

unbalanced panel with 42 different ITs. This gives us 208 portfolios over time to study, which include a total of 65,495 portfolio holdings.

The ITs in our sample all included a list of portfolio holdings attached to their annual report and accounts and filed in the Guildhall Library in London. Some ITs did not consistently report their portfolio holdings in every sampling year. For those portfolios that were provided, details given included the full description of each security held accompanied by the total investment in the security at nominal value. From the description of each security, we were able to identify the security type (ordinary, preference, or fixed interest), its geographical origin, and its sector. For example, from the description “Buenos Ayres and Pacific Railway 7% Debenture Stock,” we can assume that this was an Argentinian fixed-interest railway security.

These data allow us to analyze the asset allocation strategies of ITs, cross-sectionally and over time. We can explore the relative emphasis on geography,

sector, and type of security for these ITs and whether these strategies changed over time. Many ITs had names that indicated their asset allocation preference, such as Share and Debenture Trust, Foreign and Colonial Investment Trust, and Brewery and Commercial Investment Trust. Others were vaguer, such as the Omnium Trust, or included words such as “general” or “international” in the name to allow maximum flexibility. Another way to show flexibility of investment policy was to choose a name which reflected where the money came from rather than where they were invested, such as the Scottish Investment Trust—or both, such as the Scottish American Trust. ITs were vague as to their investment strategy in their prospectuses and imposed few constraints in their articles of association (see Sotiropoulos et al., 2020). Thus, the name of the IT does not appear to have constrained its investment strategy in practice.

Nor did the way in which ITs listed the securities held in their portfolios provide much indication of which asset classes they prioritized. The majority of ITs in our sample that provided portfolio details (just over 50%) chose to list their holdings in alphabetical order. An alphabetical listing allowed the investor to search for a particular security with ease and grouped issues by the same issuer but gave no indication as to how or why particular securities had been chosen nor how they related to other securities in the portfolio. Almost half of the ITs in our 1920 sample, though, categorized holdings first by geography, that is, by country or region, choosing to emphasize the “geographical distribution of risk,” and then by sector or security type. A minority of trusts listed securities by security type and hence risk level or, more often, by sector, such as breweries or railroads. Another common approach was to put the dominant holdings first, such as British government bonds acquired during and after WWI, together with the railroads sector. These choices imply that asset allocation strategies of these ITs were put geography first while choice of sector and security type were interlinked. Was this emphasis on geography along the lines of the Lowenfeld geographical distribution of capital—that is, equally distributed across the globe and also in similar risk securities? Or were the IT strategies more active in terms of asset allocation?

7 Investment by Geographical Region, Sector, and Security Type

Figure 2 presents the investment profile (total average and boxplots¹³ to capture dispersion per available year) of the ITs in our sample across six regions of the world. The figure highlights a number of key points. First, there are clear preferences for regions which persist (with the exception of North America in the 1920s); second, there are major changes in asset allocation over the period 1886–1928;

¹³A boxplot displays the variation in a sample, depicting data via their quartiles. The spacings between the different parts of the box illustrate the degree of dispersion and skewness in the data.

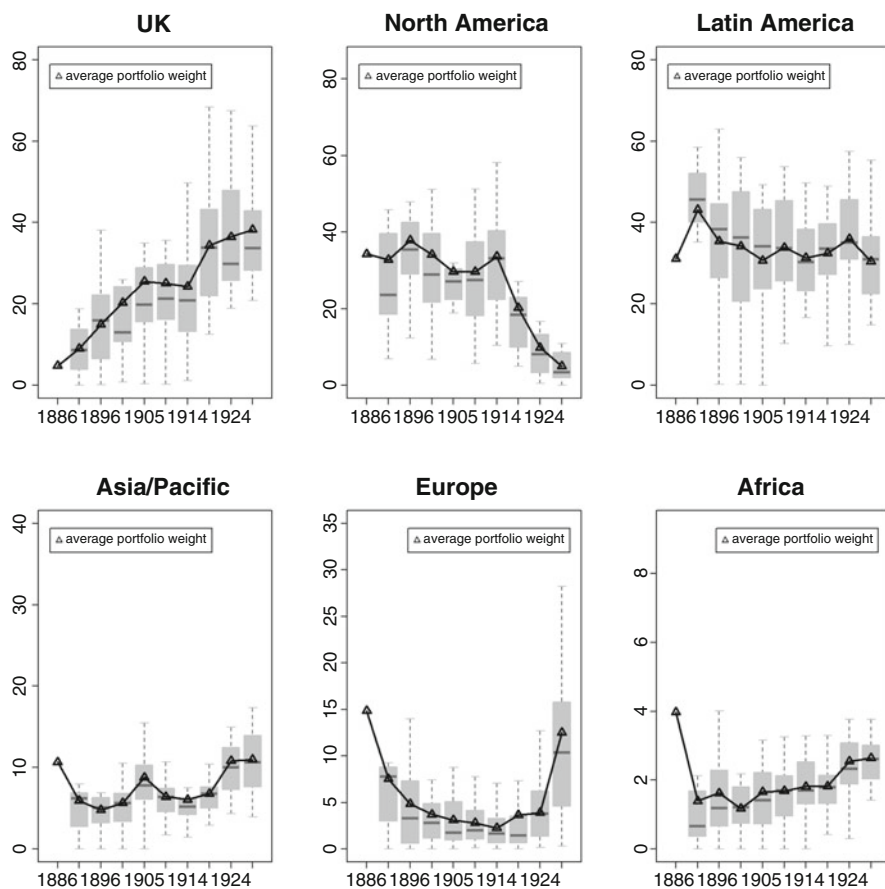


Fig. 2 Geographical distribution of investment trust portfolios in our sample (percent of portfolio nominal value) (*source*: our dataset). *Notes*: Our calculations are based on the reported nominal portfolio values. The boxplot for the year 1886 is omitted because there are only five investment trust portfolios in our dataset. Russia has been included in the Asia/Pacific region. North America includes the United States and Canada and Latin America the rest of the American continent

and third, there is significant variation between different ITs in their asset allocation strategies, as shown by the spread of the boxplots. Before WWI, North America and Latin America were the two preferred regions. Europe was of limited interest except at the beginning and end of the period. The Asia/Pacific and Africa regions are steady over time, at 10%–15% combined. The major changes over time are the rise in UK securities and the decline in North American holdings, both after WWI. Holdings of domestic securities rose on average from under 5% in 1886 to 24% by WWI, rising further to 38% by 1928. In contrast, holdings of North American securities fell from 34% at the outbreak of war to below 5% by 1928. Steiner (1929, p. 34) explains how ITs were “forced” during WWI to dispose of their dollar-denominated American holdings to help the British government obtain credit

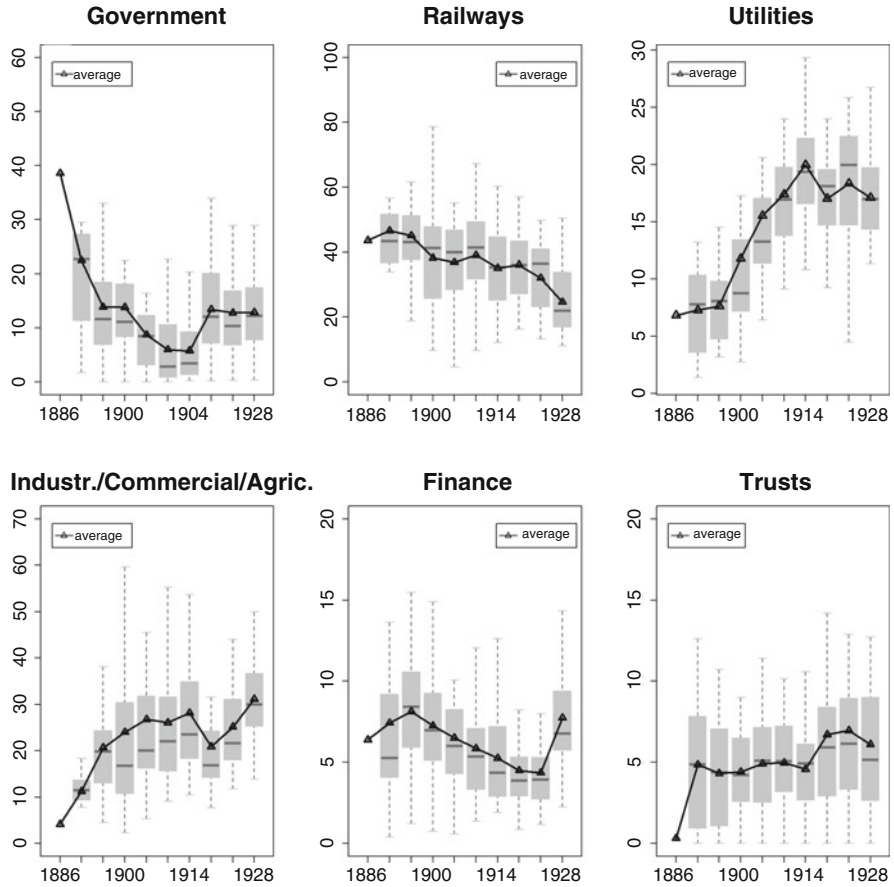


Fig. 3 Sector distribution of investment trust portfolios in our sample (percent of portfolio nominal value) (*source*: our dataset). *Notes*: Our calculations are based on the reported nominal values in the investment trust annual reports. The boxplot for the year 1886 is omitted because there are only five investment trusts in our dataset

in the United States. Within Latin America, the most popular destinations for investment were Argentina, averaging between 22.3% in 1891 and 11.2% in 1928, respectively, of IT portfolio share, second only to the larger and more developed United States.

Figure 3 shows the sector allocation of the IT sample for the period 1886–1928. Government bonds fell out of favor after their 1886 peak of 38%. By 1914, the IT portfolio exposure to government bonds was only 6%. After WWI, the percentage rose to between 10% and 15% for the rest of the 1920s. Railways were the most important sector for ITs up to WWI but showed a steady decline over time, from a high of 45%. By the late 1920s, railways still represented around 20% of total IT portfolios, despite poor performance from the sector in both the United Kingdom

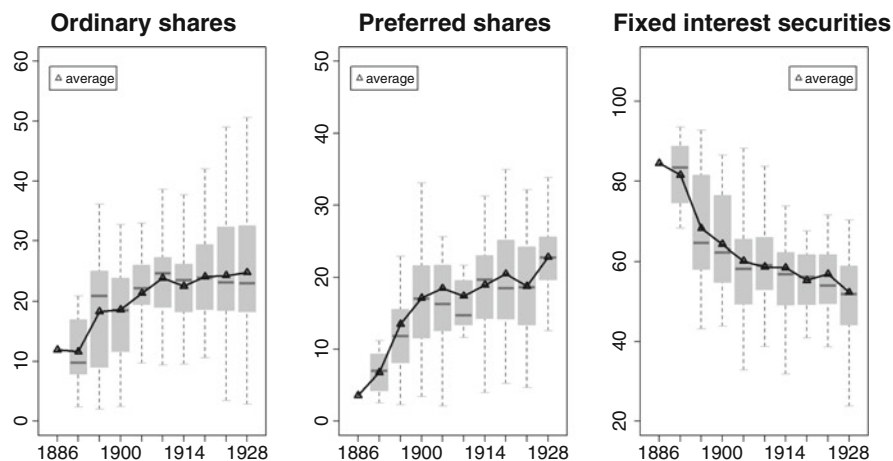


Fig. 4 Security-type distribution of investment trust portfolios in our sample (percent of portfolio nominal value) (*source*: our dataset). *Notes*: Our calculations are based on the reported nominal values in the investment trust annual reports. The boxplot for the year 1886 is omitted because there are only five investment trusts in our dataset

and the United States. There were significant changes in sector allocation over the period, with utilities and industrial/commercial/agriculture sectors growing rapidly in importance. Utilities rose from 7% to peak at 20% of portfolios by WWI, and investment in the industrial, commercial, and agriculture sector rose from under 5% to over 30% by 1928. Financial securities represented a steady 5% throughout, with crossholdings in other ITs also averaging 5%, a low figure considering the common directorships outlined by Sotiropoulos et al. (2019). The boxplots show significant variation between ITs as to holdings in other ITs, but we find no particular preference for ITs with which there were joint directorships (see Sotiropoulos et al., 2020).

Figure 4 shows portfolio asset allocation across different types of securities for our sample of ITs: ordinary shares, preferred shares, and fixed-income securities. The charts confirm the view of Robinson (1930, p. 287) that “from earliest days the British investment trusts have been primarily buyers of bonds, and this is true today, although a growing appreciation of equities is evident.” However, from an average of more than 85% of portfolios in 1886, the proportion of fixed-income securities fell rapidly by the 1900s and hovered around 50%–60% thereafter. There was a corresponding increase in corporate preference and ordinary shares over the period, with both types representing around one-quarter each of the average portfolio by the late 1920s.

It is perhaps surprising that ITs had on average almost a quarter of their portfolios invested in ordinary shares, particularly as we know that throughout this period, insurance companies preferred bonds and mortgages. There was a significant increase in holdings of ordinary shares to nearly 25% before 1914, compared with 4% for life offices (Scott, 2002). This was *before* the period of high inflation post WWI and *before* equities were shown to have outperformed bonds in the long term

by Smith (1926) for US common stocks and by Raynes, chief actuary of Legal & General, for the United Kingdom in 1928 (Rutterford, 2009). Post WWI, however, there is significant variation in IT portfolios' holdings of ordinary shares, with some ITs holding more than 50% in ordinary shares and others almost nothing. Scott (2002) reports how some of the smaller insurance companies in the 1920s and 1930s preferred to invest in equities by buying shares in ITs which held them, rather than invest directly.

The choice of type of security was closely linked to the ITs' preferred sectors. For example, the rapid decline in holdings of overseas government bonds before WWI meant fewer fixed-income securities. Similarly, there were falls in holdings of railway fixed-interest securities reflecting sales of US dollar-denominated securities during WWI. Also, one explanation for the rise in preference shares and ordinary shares in portfolios is the switch to industrial, commercial, and agriculture securities which rose from an average of 5% to 30% of portfolio nominal value during the period. Before WWI, ITs were able to buy securities in developing markets such as Argentina for higher yields than were available on equivalent domestic securities. After WWI, they turned to UK government war loans and more "junior stocks and shares bearing no fixed interest and having no foreclosure rights" in order to enhance portfolio yields (Robinson, 1923, p. 20).

Figures 2, 3, and 4 have shown us how, despite names and aims and objectives which argued for a particular asset allocation strategy, individual ITs were not constrained by their prospectuses and articles of association, nor did they feel constrained to either follow such strategies from inception or maintain the same strategy over time (Kilborne, 1925, p. 162). Our analysis has also shown how ITs tended to concentrate on a limited number of regions, albeit with some exposure to less popular markets. Their preference for North and Latin America persisted for many years, but WWI forced some changes to asset allocation.

This is evidence of an active asset allocation strategy, in contrast to Lowenfeld's "naïve diversification" approach to global markets. The way in which portfolios were constructed also differed. ITs adopted a bottom-up approach, choosing preferred regions, preferred sectors, and then a wide variety of securities. Leibson, in 1930 (p. 15), argued that the possibilities for ITs were extensive: he asserted that there were 100 stock exchanges and 200,000 marketable securities to choose from. Figure 4 has shown that ITs held all types of financial security with varying risk levels. Robinson (1923, p. 20) refers to a "lack of uniformity" in holdings of ordinary, preferred, and debenture stock. Lowenfeld's approach, by contrast, was to find approved securities of *similar* risk in *all* regions of the world—with the required level of yield and the maximum capital safety for that yield. Securities which passed the test were then put on an investment list from which to choose (Rolleston, 1909, pp. 12–13).

Size was doubtless a factor in portfolio choice. In 1908, the Investment Registry, which managed portfolios using the Lowenfeld approach, was managing 454 portfolios, with an average value of £11,531 (*ibid.*, p. 34). Ten or twenty individual holdings of £500 or £1000 were appropriate for these portfolios. As we saw in Table 1, ITs were typically around £1 m in size. How did ITs manage much bigger

portfolios? Did they have larger—or a greater number of—holdings? In other words, did ITs manage stock selection?

8 Stock Selection

Figure 5 shows the striking rise in number of holdings and the relatively small average holding value over time. Although there is substantial cross-sectional variation in the number of portfolio holdings of an IT, as shown in Fig. 5, this number was never lower than 68 (which was in the very first year in our sample). The very early trusts had larger and fewer individual holdings: for example, F&C had 18 holdings with an average nominal value of over £50,000 when it first launched in 1868. Its top ten holdings accounted for 80% of the proposed portfolio in nominal terms and 73% of market value. This did not last for long. By 1900, the average nominal value holding of F&C had fallen to under £15,000 (Chambers & Esteves, 2014). For our sample of ITs, as shown in Table 2, the average number of holdings by 1900 was 276 with an average size of £5273. By 1928, the equivalent figures were 383 and £4761.

Three-quarters of IT portfolios in the sample included more than two hundred securities, with some holding over 500. For instance, the Mercantile Investment and General Trust had a portfolio of 571 securities in 1900, and the Industrial and General Trust reached 717 holdings in 1914. The chairman of the International

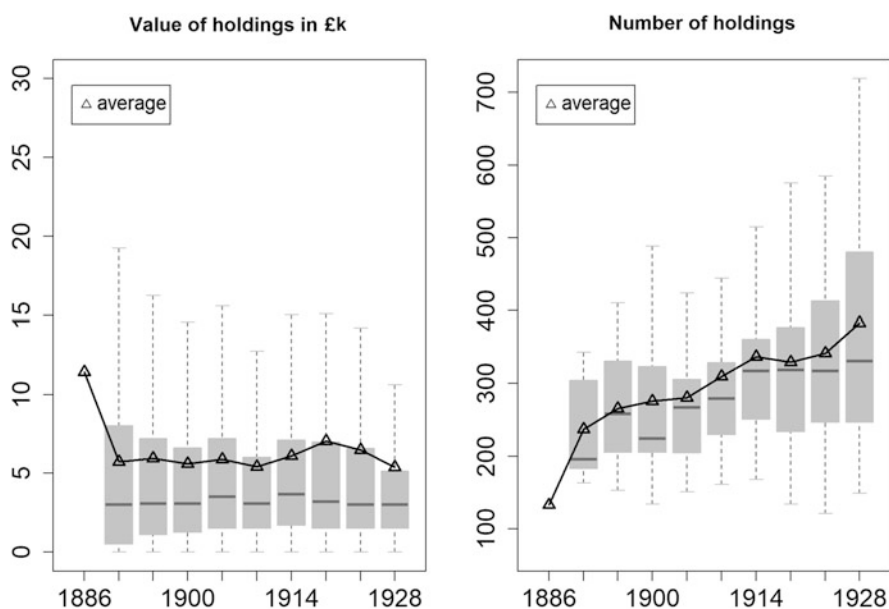


Fig. 5 Number and value of holdings for the investment trusts in our sample (source: our dataset)

Table 2 Average portfolio concentration and number and value of portfolio holdings in our sample (*source*: our dataset)

	1886	1891	1896	1900	1905	1911	1914	1920	1924	1928
Number of holdings per portfolio	133	237	266	276	281	310	337	330	342	383
Ordinary shares	33	84	69	76	75	90	90	96	92	117
Preferred shares	7	30	38	55	58	59	70	78	79	95
Fixed-interest securities	93	123	158	145	148	160	177	156	171	171
Value of the individual holdings in £	12,264	6266	5715	5273	5754	5354	5766	7422	6358	4761
Ordinary shares	8547	3360	5017	4387	5260	5292	5109	6557	5634	3982
Preferred shares	32,155	4558	5139	4590	4842	4878	5082	6004	4689	4317
Fixed-interest securities	13,054	8800	6558	6062	6551	5837	6271	8715	7403	5715
Portfolio share (%) of top ten holdings by value	33	22	21	21	20	18	18	23	21	14
Portfolio share (%) of top 10% holdings by value	36	38	36	36	36	35	35	40	37	31
Portfolio share (%) of top 25% holdings by value	61	67	60	60	60	58	58	61	59	53
Portfolio share (%) of top 50% holdings by value	83	90	83	83	83	81	80	83	81	78

Investment Trust, in 1899, commented on how they had worked to increase the number of holdings from 363 to 469 over the past 4 years and that, although this was extra work for the staff, it would remove “the great fault of the trust” whose “large amount [was] not sufficiently scattered” (*Financial Times*, 1899, 7 March, p. 2) On average, portfolios comprised 213 different issuers. Corporate activity such as frequent new issues to fund, say, railway construction, bonus shares, and capital reconstructions increased the number of holdings per issuer.

Part of the trend to more and smaller holdings can be explained by a switch into domestic shares and debentures, away from the more liquid government bonds. Keynes, in his capacity as chairman of the insurance company National Mutual, complained in 1928 of the “narrow market” for domestic equities and how information could only be had on 50 of the top 250 commercial and industrial enterprises. The equity market in the United Kingdom was also skewed, as the ordinary shares of

only two companies, Courtaulds and Imperial Chemical Industries, were worth, in 1928, more than the entire British railway industry (Keynes, 1983, p. 158). Keynes' solution was to buy not one share, but a number of shares in a favored sector, "dividing investment between larger firms in the business even though we do not know much about them individually" (ibid., pp. 158–159). There is some evidence of this scattergun approach in our sample of ITs, where the average holding for ordinary shares fell to under £4000 by 1928 compared with £5700 for fixed-interest holdings. Robinson (1923, pp. 19–20) observed that, even for large trusts, it was best practice to invest no more than £7000 or £8000 in any one issue, with the average investment "a few thousand pounds." This led to very diffuse portfolios, as shown in Table 2. Instead of the original F&C portfolio with 80% of the portfolio in only ten securities, here, investment trusts' top ten securities accounted for 33% in 1886 falling to 14% in 1928. The top 50% (not number) of holdings accounted for around 80% of portfolio value. These highly diversified portfolios were the norm in the IT sector. And yet, very few securities were held in common, despite personal links via directorships and common addresses (Sotiropoulos et al., 2019). In 1914, for our sample of 24 ITs, 75% of securities were held by only one IT. Only 15% were held by one or two ITs, and only 2.5% of holdings were held by more than ten ITs.

Table 3 shows those securities which were held by two-thirds or more of ITs, that is, 16 or more. In 1914, the year sampled, only 12 securities, out of hundreds held, were in more than two-thirds of our sample portfolios.

9 Market Timing

Even though ITs were closed-end funds, IT directors were keen to maintain the liquidity of their portfolios and the marketability of individual securities so that they won't glut the market. It was better, in a depressed market, to try to sell 10 or 20 holdings of \$25,000 rather than one at \$500,000 (Leibson, 1930, p. 17). As closed-end funds, ITs could remain fully invested, with no need to keep a percentage in cash to meet requests for repayment.¹⁴ After the initial allocation, therefore, new securities could only be bought for the portfolio from the proceeds of sales of existing holdings or from bond redemptions with bank loans used to manage time lags between sales and purchases (Sotiropoulos et al., 2020).

It is clear that ITs were not passive with respect to buying what they considered "cheap" securities and selling those they believed were overpriced. Robert Fleming, at the 1924 AGM of Metropolitan Trust, commented, "we have seized such opportunities as offered to make what we deemed to be judicious exchanges" (*Investors' Monthly Manual*, 1924, March, p. 120). Robinson (1923, p. 21) concurred, "the

¹⁴Shareholders could sell their investment trust securities if they wished to get their money back, although this might be at a premium or discount to the net asset value (Sotiropoulos et al., 2019).

Table 3 Securities held in 1914 by 16 or more of investment trusts in our sample (*source*: our dataset)

Trust portfolios in 1914 (24 trusts in our sample)				
Frequency	Security name	Security type	Country	Sector
19	Central Argentine Railway Company, new shares	Ordinary share	Argentina	Railway
18	Cordoba Central Railway Company, 4.5%. Second debenture stock	Fixed interest	Argentina	Railway
17	Cordoba Light, Power, and Traction Company, 6%. Five-year notes	Fixed interest	Argentina	Utility
17	Cordoba Light, Power, and Traction Company, £1 shares, fully paid	Ordinary share	Argentina	Utility
17	Otis Steel Company, 5% prior lien debenture stock	Fixed interest	United States	Industrial
17	New York Breweries Company, 6% perpetual debentures	Fixed interest	United States	Brewery
16	Buenos Ayres Great Southern Railway Company stock	Ordinary share	Argentina	Railway
16	Seaboard Air Line Railway, 5% adjustment mortgage bonds (1949)	Fixed interest	United States	Railway
16	Hudson and Manhattan Railroad, 5% first mortgage bonds	Fixed interest	United States	Railway
16	Mexico Tramways Company, 5% general consolidated first mortgage gold bonds (1956)	Fixed interest	Mexico	Utility
16	Missouri Pacific Railway Company, extended second mortgage, 5% gold bonds (1938)	Fixed interest	United States	Railway
16	Buenos Ayres Lacroze Tramways, 5% debenture stock	Fixed interest	Argentina	Utility

investment trust is alive to opportunities for profitable purchase and sale.” He argued that ITs had special privileges when buying securities:

many of the best things are offered privately to the investment trusts before they are put upon the market; and [...] as regards a great number of securities, the investment trusts are able to get them by underwriting [...] at lower prices than the outside investor is obliged to pay (*Investors’ Monthly Manual*, 1925, April, p. 171).

Nor were ITs averse to market timing, particularly after WWI when, with Britain off the gold standard, overseas investment became more volatile in what Steiner (1929, p. 4) described as “deranged foreign exchanges.” The chairman of the Railway Share Trust and Agency (Company) Limited reported, at the 1920 AGM, that:

[w]hen the exchange in favour of dollar securities went, as it did last year, to such unprecedented figures, the board had felt it would be unwise to let slip the opportunity of realizing many of the American securities at figures which showed large profits on their book values. [...] Such profits could only be regarded as abnormal (*The Times*, 1920, 28 February, p. 23).

The profits on sale of securities during that year, at £61,091, were compared to a gross profit from investment income of £75,811. The capital gains were placed to reserves. The directors' aim was to have sufficient reserves to be able to pay the desired dividends regardless of market movements. This meant constant scrutiny of the portfolio. Those securities which had accrued capital gains were sold to bolster reserves and were replaced by securities deemed to be underpriced on issue or undervalued or in a temporarily depressed market. The preference was for securities which were "marketable, seasoned and of definite merit" and "with values greater than prices" (Williams, 1928, pp. 4, 28; Robinson, 1923, p. 21). The need to generate capital gains to boost reserves meant that ITs were looking—in modern terminology—to buy at the low and sell at the high. They were not passive investment managers.

10 Conclusions

This chapter has discussed portfolio management strategies as practiced by investors in the late nineteenth and early twentieth centuries, with a special emphasis on the role of investment trust companies (ITs). We find ample evidence of a sophisticated approach to asset allocation by ITs, which built a wide variety of portfolios around different types of securities from different regions and sectors, with the aim of enhancing yields as well as bolstering reserves. These trusts were not passive "buy and hold" investors and altered their asset allocations as world events impinged on the financial markets, although they retained a preference for overseas investment throughout the period studied, 1886–1928. Individual ITs adopted independent portfolio strategies, with very little overlap of portfolios. ITs also sought to add value by stock selection—involving hundreds of securities per portfolio—and judicious purchases and sales. They were also not afraid to buy equities, when available, well ahead of other institutional investors, such as insurance companies.

The management of ITs gained—and retained—a reputation for being skilled and professional throughout the period, despite a world war and major market movements. The sheer complexity of the securities included in portfolios—some of which were not listed in the United Kingdom—indicates significant asset management skills and knowledge of the market. Indeed, many studies of the investment trust sector before the 1930s made the explicit point that the mere "machinery" of diversification was by no means enough to guarantee successful investment performance. Management skills were equally, if not more, important (see Scratchley, 1875; Parkinson, 1932; Campbell, 1924; Glasgow, 1935, p. 19). Or as Sturgis remarked in 1924, the success of an English investment trust "is entirely and absolutely dependent upon the character of its management" (Sturgis, 1924, p. 171).

This early foray into fund management by UK ITs was deemed a success, but they remained a tiny part of total London Stock Exchange capitalization. It is an as yet unanswered question as to why it took so long for the asset management industry as a whole to emulate the sophisticated strategies first adopted by ITs well before

WWI. A focus on different episodes in the history of investment trusts can help shed more light on the—under-researched—evolution of the asset management industry. This will allow not only economic historians but also professionals in finance and policy makers to draw lessons from how history affects the evolutionary path of modern financial practices.

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