Preliminary draft

The First Global Emerging Markets Investor:

Foreign & Colonial Investment Trust 1880-1913

David Chambers and Rui Esteves*

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Abstract: The Foreign and Colonial Investment Trust (FCIT) is the oldest surviving closed end fund in the world today. Its early success was related to its identification of a missing market, namely, the provision of a wholesale diversified investment vehicle for the investing public. Whilst much research has been conducted on aggregate international capital flows in this period, little work has been undertaken on the prime investment institutions. This micro-study seeks to fill this gap by undertaking detailed quantitative analysis of the leading investment trust investing widely in emerging markets during the first era of financial globalisation before WWI. The history of this flagship investment trust over more than three decades up to 1913 provides an insight into the relative success of this institutional innovation as well as into the risk and returns of investing in global emerging markets over a century ago.

* David Chambers (d.chambers@jbs.cam.ac.uk) is at Judge Business School, Trumpington Street, Cambridge CB2 1AG, United Kingdom. Rui Esteves (rui.esteves@economics.ox.ac.uk) is at the Dept of Economics, Oxford University, Manor Rd Building, Oxford OX1 3UQ, United Kingdom. We thank Foreign and Colonial for access to their archives and Ben Chabot, Christopher Kurz and Mary O'Sullivan for help with data as well as Adam Harmon for research assistance.

The Foreign and Colonial Investment Trust (FCIT) is the oldest surviving closed end fund in the world today. Established in 1868 as the Foreign and Colonial Government Trust, it was substantially reorganised a decade later. An analysis of the annual portfolios from 1879, when its shares first became listed on the London Stock Exchange, until 1913 provides an insight into how one sophisticated investor approached the rapidly expanding world of international investment during the First Era of Globalisation (O'Rourke and Williamson 1999, Obstfeld and Rogoff 2004). Previous research has concentrated on the character and determinants of the aggregate capital flows from Britain (Edelstein 1982, Stone 1999) and Germany (Esteves 2007) and concluded that fundamentals such as long-term growth prospects were indeed important along with political risk and institutional conditions.

FCIT was at the forefront of this wave of foreign investment. The early success of FCIT was related to its identification of a missing market – that for wholesale investment in diversified portfolios by the general public – particularly at a time when domestic securities were yielding historically low returns. The advantages of the mutual fund structure, first adopted by the Dutch in the 18th century (Rouwenhorst 2004), quickly became obvious and led FCIT to expand its investment horizons from the initial portfolio of "well-selected Government Stocks" to an array of foreign and colonial securities. By 1913, the fund reported holdings of 313 securities, 85% of which were corporate. Throughout the period, FCIT kept its focus on foreign securities in emerging markets, a strategy which was also emulated by many of the 61 investment trusts operating in London on the eve of World War I with a combined market capitalization of over £60 million (according to *Investor's Monthly Manual* data).

In this paper, we first describe the types of securities held, the countries, industries and credit risks to which FCIT was exposed before estimating the risk and return of the portfolios over the whole period. Furthermore, we consider how closely the portfolios approached the efficient frontier based on historic risk and returns. In large part, FCIT was a global emerging bond portfolio. As such, it weathered several financial crises around the world, most notably Argentina in 1891-2, and suffered a succession of defaults in its portfolio. We consider each of these episodes and how FCIT responded to them.

Overall, the FCIT is a case study of the risks and opportunities confronting international investors over a period of 33 years by a rapidly expanding developing world and offers a fascinating comparison with the situation available to emerging market investors today during the second era of globalisation.

In the next section we describe the origins of the investment trust industry and FCIT in particular. Section 1 reviews the literature on international investment and on reverse home bias during the First Era of Globalisation. Section 2 describes our data and presents summary statistics on the FCIT portfolios. Section 3 discusses the extent of diversification achieved by the FCIT portfolios and section 4 reviews the trust's annual performance. Section 5 compares and contrasts the emerging debt returns during this first age of globalisation with the returns generated during the more recent period since the 1980s. Section 6 concludes.

1. Literature review

This paper links with three strands of literature dealing with the first era of financial globalisation 1870-1914, namely, with that regarding the patterns, costs and benefits of international capital flows, the investor home bias debate in Britain, and the role of a particular financial innovation, the investment trust (aka. closed end fund), in helping to facilitate the emergence of a global capital market. This first era of financial globalisation is of considerable interest both to historians of international finance and to those engaged in the current debate on the virtues and pitfalls of international financial integration. Even by today's standards, this was a period of remarkable capital mobility, whereby a restricted group of nations – the UK, France, Germany, Belgium, and Netherlands – exported a significant share of their national savings to the emerging market countries of the time (Obstfeld and Taylor 2004).[1]

Intuitively, this was a mutually favourable trade, as surplus countries gained access to better investment opportunities, and emerging nations financed a rapid capital deepening, mainly through investment in infrastructure complementary to their pattern of specialisation in international trade. Such a claim is supported by the evidence on *de jure* financial liberalisation during the four decades before 1914, a period remarkable for an absence of legal barriers, imposed either by capital-exporting or capital-receiving nations, to the unfettered flow of capital across borders (Quinn 2003, Esteves 2011). Studies identifying the determinants of European investor attitudes toward emerging markets before WW1 provide additional further support. This literature in general finds that capital flows to these markets were mainly driven by natural resource abundance, human capital availability, and local institutional quality – all preconditions for long-run growth (Clemens and Williamson 2004,

[1] We adopt the Mauro Yafeh and Sussman (2006) definition of *emerging market countries* which relies not simply on GDPPC but also distance from the industrial core of Europe, reliance on capital inflows and relatively undeveloped capital markets. Their sample includes Argentina, Australia (from 1901), Brazil, Canada, Chile, China, Mexico, Portugal, Russia, Sweden Turkey and Uruguay and the United States (up to 1900). We make only one departure from this list by including the US up to WW1.

Esteves 2007). More recently, Faria et al. (2011) confirmed this result from the dual perspective of the yields at which investors were willing to lend to emerging countries for both the pre-1913 and post-1970 periods of financial globalisation. The similarity with the empirical results for the modern period is striking (Alfaro et al. 2008, Bekaert and Harvey 2003, Gelos and Wei 2005).

There was, to be sure, a 'dark side' of capital market integration. As emerging nations became increasingly dependent on foreign finance, they also became unable to choose the currency in which they borrowed from abroad ('original sin') as well as subject to 'sudden stops' of external finance due to their own deteriorating fundamentals or 'contagion' from other emerging countries (Catão 2006; Bordo, Cavallo and Meissner 2010; Kaminsky, Reinhart and Végh 2003). Furthermore, there is evidence that the credit cycle in core capital-exporting nations also had a direct impact on financial stability along the periphery, as today (Bordo 2006). A number of authors have tried to compare the frequency, nature, and costs of financial crises across time (Bordo et al. 2001, Eichengreen and Bordo 2003, Adalet and Eichengreen 2005, Reinhart and Rogoff 2009). The main result from this literature is that the frequency and type of crises are not independent from the underlying policy regime and, hence, cannot be fully explained by the degree of financial globalisation. In particular, crises were much less frequent during the classical gold standard (before 1914) than today, despite comparable levels of financial integration.[2]

Although less frequent, there is no evidence that pre-1914 crises were less severe in terms of lost output than in the recent past. However, this in itself is not conclusive, as we have to subtract the costs of volatility from the income gains, either through accelerated convergence (in a Solow world) or even permanently higher growth rates, in models with investment externalities. Meissner and Bordo (2007) make this comparison explicitly and conclude that, over the long-run, capital openness contributed to higher per capita income growth, despite in the short-run being associated with more frequent crises and output losses. Everything considered, emerging economies seem to 'have chosen the good part'.

What of the investing nations, led most notably by Britain? Here, overseas investment was often condemned by contemporaries and by later historians for exhibiting reverse home bias and forsaking investment in domestic industry. British investors were criticised for taking excessive risk on 'exotic' foreign securities, regarding which little reliable information existed and meagre protection due to differences in jurisdiction and sovereign immunity. In the UK, domestic industrial interests blamed the reverse home bias on the

[2] The difference is largely driven by greater numbers of currency crises today, compared to before World War I when such crises were limited by the operation of the gold standard.

'gentlemanly capitalists' in the City and the government's deferential treatment of financial and banking interests (Cain and Hopkins 1980, Rubinstein 1987). This state of affairs, it is argued, contributed to the 'decline' of the British economy during the late Victorian and Edwardian periods relative to Germany and the US as the new technologies of the Second Industrial Revolution took hold (Kennedy 1987). This view has been questioned by Edelstein (1982) who found that British investors appeared to have been perfectly rational in allocating so much capital overseas. Recent research employing mean-variance portfolio analysis and richer data on security returns has gone on to show that in aggregate British investors reaped the benefits of portfolio diversification (Goetzmann and Ukhov 2006, Chabot and Kurz 2010).

Markets, however, do not exist in an institutional vacuum, and we cannot understand the rise and expansion of a global capital market without considering the prime movers in financial intermediation. Compared to the literature on the micro-structure of stock exchanges (Davis and Neal 2005) or the role of investment banks in marketing foreign securities (DeLong 1991, Ramirez 2005), little detailed quantitative analysis has been undertaken on the investment institutions of this period. The median investor at the time did not have the funds or the inclination to invest directly in a portfolio as diversified as the aggregate statistics of capital flows imply. Banks frequently advised their clients directly on investment opportunities, especially on the Continent.

In Britain, however, arms-length capital markets were more prevalent and this role of investment intermediation was provided by, among others, the investment trusts. This institutional innovation afforded to the median investor a convenient vehicle for diversifed investment, and quickly attracted a considerable attention and success. The FCIT is both the pioneer and the longest-standing representative of this industry. The history of the rise and development of this flagship investment trust over the long and diverse span of time from 1868 to 1913 therefore provides an insight into the relative success of this investment model. This detailed micro study is complementary to earlier and broader studies of the development of investment trusts in Britain and the US (Scratchley 1875, Burton and Corner 1968, Bullock 1959, DeLong and Shleifer 1992, Newlands 1997, and Rutterford 2009).

2. Origins of FCIT and the Investment Trust industry

Although there had been early experiments in collective investment funds in the 18th century Dutch Republic (Rouwenhorst, 2004), Britain became the original home of a flourishing investment trust sector a century later with the very first trust, the Foreign and

Colonial Government Trust (FCGT), launched in 1868.[3] The launch of FCGT prompted the first wave of new trust issues. By 1875, there were 20 investment trusts quoted on the London Stock Exchange, split between the London trusts concentrating on foreign government securities similar to FCGT and the Scottish trusts specialising in US securities.[4] In contrast, the US did not establish its investment trust industry until the late 1920s.[5]

The Companies Act of 1862 consolidated earlier legislation and greatly simplified the procedures for establishing limited liability companies whether finance companies or industrial companies.[6] This legislation led to a surge in new company flotations many of which failed during the Overend Gurney crisis of 1866. In an attempt to avoid the increasingly unpopular company form, a new format was created under a common law trust structure with a board of trustees and to be listed on the London Stock Exchange.[7] On 19th March, 1868, *The Times* announced its formation as follows:

> It is stated that a new company for the investment of capital in all the principal dividend-paying foreign securities is about to be brought forward, so as to enable persons to employ money in this manner without incurring the entire risk incidental to any one particular stock. As a rule foreign securities have yielded a good average return, while there have been some deplorable instances of individual loss.

As the original name implied, the FCGT was to invest in overseas government stocks. According to the prospectus, this was the first investment vehicle of its kind "to give the investor of moderate means" the opportunity to invest in foreign stocks.[8] Such trusts offered several advantages: a diversified portfolio, hence they were known as "average" investment trusts; a secure place for holding bearer bonds; the collection of foreign currency coupons and dividends; and superior information on foreign investment opportunities (Scratchley, 1875).

The trust was designed to offer a considerable yield pick-up over the modest 3.3% running yield on British Consols available at that time and was structured initially to invest in a fixed "schedule" of 18 foreign government bonds diversifed across Austria, Egypt, Italy, Latin America, New South Wales, Nova Scotia, Portugal, Russia, Spain, Turkey and the US.

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[3] Burton and Corner (1968:15). There were earlier collective investment schemes such as the Cornish tin mines of the 1830s but these did not possess limited liability, Newlands (1997, chapter 2).
[4] ibid, p.17, Table 2-1.
[5] Bullock(1959 , ch.2), Burton and Corner (1968, ch.10).
[6] Newlands (1997: 45).
[7] Burton and Corner (1968: 15), quoting *The Economist.*
[8] F&C prospectus.

This portfolio offered a yield of around 8% and was funded by issuing trust certificates of £100 par value paying a coupon of 6% per annum at an offer price of £85.[9] The certificates possessed an embedded lottery feature in that any reserves accruing after payment of the 6% coupon were used for a sinking fund under the terms of which certificates were randomly drawn each year and repurchased at par. It was originally intended that the trust have a life of 24 years and that its investments were to be held to maturity and could only be sold under exceptional circumstances such as the approach of financial distress. Over the next 5 years FCGT made a further 5 issues of certificates to invest in foreign government bonds and a sixth in 1873 to create the American Investment Trust to invest in US railroads.

In 1879, following the ruling in *Sykes v. Beadon* which declared the common law trust structure illegal, FCGT along with almost all the rest of the investment trust industry converted themselves into joint-stock companies and adopted a capital structure more familiar to investors in investment trusts or closed end funds today. The trust was also keen to put an end to its embedded lottery feature by this restructuring. All outstanding £100 certificates were exchanged for a combination of preferred stock and deferred stock.[10] Both securities carried equal voting rights but the former paid a fixed dividend of 5% and ranked ahead of the latter in paying dividends; the deferred stock then received any dividends declared in excess of the 5%. In 1879, there were approximately £1.2m and £1.1m of nominal preferred and deferred stock respectively. Hence, such a capital structure introduced a substantial element of gearing into the trust at slightly over 100% which remained virtually unchanged.[11]

As to the management of the trust, the Board of Directors was collectively responsible for managing the portfolio and comprised the four original trustees appointed for life together with between 8 and 12 additional directors. However the four trustees retained their veto over all transactions. Portfolio turnover was intentionally kept very low and there was no separately appointed investment manager up to 1913. It has been argued that the City and social connections of the trust directors and their interlocking directorships were important in bringing about a judicious selection of investments.[12]

A second new issue boom when 72 new trusts were floated on the LSE occurred between 1887 and 1890.[13] This boom saw the creation of a new breed of “financial” trust which sought to boost investment returns by earning fee income from underwriting new

[9] McKendrick and Newlands (1999: 32-34).
[10] McKendrick and Newlands (1999, ch.3).
[11] The only subsequent change was a modest further issue of £47,500 nominal value of preferred stock in 1891.
[12] Cassis (1994: 150-52).
[13] Burton and Corner (1968: 28), Table 3.1.

issues, by investing in illiquid securities and by specialising in particular sectors of the market, particularly Argentina and Latin America.[14] The Baring crisis of 1890 brought this boom to an end and exposed the fragility of many of the newest trusts. A total of 24 trusts were wound up between 1892 and 1896.[15] During this turmoil, the FCGT widened its investment powers to include foreign railway and industrial corporate securities and changed its name to Foreign and Colonial Investment Trust (FCIT) in 1891 as a reaction to the decline in the yields offered by foreign government or municipal stocks.[16]

Despite the reputations of the trusts surviving the Baring Crisis, among them FCIT, being substantially enhanced, it took a considerable time for investors to recover confidence in the investment trust sector. A third new issue boom did not begin until 1905 lasting until the outbreak of war in 1914. Even then the trust sector represented less than 1% of the market capitalisation of the foreign, colonial securities and corporate securities quoted on the London Stock Exchange and in which they in turn mainly invested.[17]

It is worth summarising the main features of the FCIT as it evolved up to 1913. First, diversification was a primary objective together with the provision of a yield premium to that available in British Consols. Second, although FCIT disclosed its portfolio holdings annually and therefore transparency was relatively good compared to many other trusts at that time, all holdings were nonetheless stated at book cost and investors would not have been told the net asset value (NAV) of the underlying investments to which they were entitled. Third, the investment approach was to buy and hold securities to maturity, unless the prospect of financial distress created a need to sell early, and there was no attempt to enter into market-timing. Fourth, with no appointment of a specialist portfolio manager until 1924, the trust was managed by its trustees, and overall expense ratios were very low between 0.2% and 0.25% of total assets compared to a level today at least four or five times this figure. Lastly, the incentives of the trustees and directors as investment managers were well aligned in that each director was required to hold a minimum of £1,000 of nominal value of shares.

We shall explore some of these features in more detail in the sections that follow and once we have described the data in more detail.

[14] Rutterford (2009: 162); Newlands (1997, ch.7).
[15] Newlands (1997: 141)
[16] McKendrick and Newlands (1999: 67-68).
[17] Burton and Corner (1968: 327), Table A2.

3. Data and Descriptive Statistics

3.1 Data Description

Security holdings of FCGT and subsequently FCIT were disclosed at book cost in the company annual reports in early January from 1880 to 1913.[18] We obtained the market prices of each of these securities at the prior December year-end from the *Investors Monthly Manual,* the London *Stock Exchange Daily Official List,* the *Commercial and Financial Chronicle* and *Burdett's Stock Exchange Official Intelligence.*[19] Interest and dividends paid were also taken from the latter two publications. Benchmark security returns data for this period is taken from Chabot and Kurz (2010).[20]

Whilst we have made every effort to price the FCIT portfolios, we have been unable to locate market prices for between 10 and 15% of the portfolio across the period. It is likely that these securities were either traded infrequently, were traded on a regional stock exchange for which prices were not collected or were unquoted investments privately placed with FCIT. Since we believe that the portfolio characteristics analysis which follows below is more informative when expressed in market values, we have valued these holdings at the offer price where disclosed, par value where no offer price exists, or at zero value where coupon payments have not been paid. [21]

3.2 Portfolio characteristics

FCIT spearheaded the development of the investment trust industry in the UK and the World by exploiting the opportunities for portfolio diversification to the full. In keeping with the investment orthodoxy of the times, the trust was predominantly invested in fixed-income securities (**Table 1**). On average less than 10% of the portfolio (by number of securities or market value) was invested in stocks, and about half of that was taken up by preferred stock. By industrial sector, stockholdings were concentrated in railways and especially manufacturing.[22] Furthermore, the FCIT invested mainly in long-dated bonds. Over the whole period, the average maturity of redeemable bonds stood at 35 years. In the 1880s, this exposure was mainly driven by investments in government perpetual bonds, which remained around two thirds until 1889, thereafter declining to 22% on the eve of WW1.

[18] Foreign and Colonial Archives.
[19] In the case of Burdett's, the price was quoted as a high/low for the year and we used the simple average.
[20] We have deflated these nominal returns with the deflator from Feinstein, tabs. 2 and 5.
[21] The portfolio characteristics analysis has also been done in terms of par values and our main findings remain unaltered.
[22] On average, 16% of railway investments were held as stock, while the corresponding figure for manufacturing and other industries was 40%.

Table 1 and Table 2 here

FCIT's investments displayed a distinct international focus as its name implied. The extent of the regional breakdown is summarised in **Table 2** which displays the cumulative number of stocks and the corresponding maximum value invested across the whole period. Whilst FCIT did invest in British securities, the total amount was very modest at only £8 million and was dwarfed by the investments in the US (£103 million) and Argentina (£78 million).

Increasingly, the primary focus of the fund was the investments in the emerging New World, which represented at least 70% of the total market value following the change in investment guidelines, with both North and South America leading the way (**Figure 1**). Notwithstanding the dramatic Baring crisis of 1890 and the substantial contagion in emerging markets that it brought about (Mitchener and Weidenmier 2008), increasingly, the FCIT maintained this heavy allocation to a single geographic region. Despite the trust's name, the average allocation to British Empire securities trended down over time from 14% in the 1880s to 7% after 1899 (see Table 3 below).

Figures 1 and 2 here

In the period 1880-1913, the FCIT invested in 882 different securities, sold by 443 issuers spread across 46 countries, territories and colonies. The impact of the 1891 enlargement of the object of the trust to non-government issues is also evident in the stepwise increase in the number of securities, rising to over 300 on the eve of WW1. As the number of securities increased, portfolio concentration, measured by the percentage of the portfolio invested in the 10 largest securities, declined from 42% in the 1880s to 24% in the 1890s and then to 17% after the turn of the century. Similarly, portfolio turnover, defined as the ratio of the lesser value of purchase and sales over the total portfolio value, averaged only 2%.

Turning to the sector allocation of the fund, before the 1891 change in statutes, the FCIT distributed its investments between sovereign and colonial government bonds and government-guaranteed corporation bonds, particularly railway bonds (**Figure 2**). The enlargement of the trust's investment scope allowed investment in the securities of "companies or corporations not guaranteed by any Government, State, or Municipality" as reported by Lord Eustace to the 1891 AGM.[23] Although this led to a growing interest in public utilities and in industrial ventures, the trust in large part used this added flexibility to increase its exposure to railways.

[23] Cit. in McKendrick and Newlands (1999: 66).

In summary, FCIT's large number of holdings, low portfolio concentration and low turnover are entirely consistent with its stated investment philosophy which emphasized holding investments to maturity other things being equal and eschewing opportunities to switch actively between issues. Such an approach contrasts sharply with actively managed funds a century later. Templeton Emerging Markets Income Fund and Morgan Stanley Emerging Markets Debt Fund were both started in 1993 and are the two oldest and longest-running closed end funds listed on the NYSE investing in emerging market bonds today. The stated investment objective of both funds is very similar to that of FCIT, namely, to seek high, current income with capital appreciation as a secondary objective. According to their most recent filings, Templeton had 81 holdings with its largest 10 holdings accounting for 42%; and Morgan Stanley 110 holdings with its largest 10 holdings accounting for 27%.

In the next section, we examine the degree of diversification achieved by FCIT.

4. Portfolio diversification

Based on aggregate market indices, the literature has underscored the gains from diversification implied by the composition of the aggregated security portfolio available to British investors (Goetzmann and Ukhov 2006, Chabot and Kurz 2010). Here we seek to identify these gains for a leading institutional investor of the period.

We can answer the question of how well diversified was FCIT by comparing its portfolios with three different benchmarks: (i) a GDP-weighted global benchmark; (ii) the aggregate patterns of foreign portfolio investment by British investors; and (iii) the optimal portfolios implied by the historic risks and returns available to investors during this period.

4.1 GDP-weighted benchmark

In the absence of a market-capitalisation-weighted global benchmark, we can make use of the Maddison data on the distribution of global GDP to create a GDP-weighted benchmark for the years 1900 and 1913. Europe accounts for 47% (46%) of world GDP in 1900 (1913), Asia 28% (25%), North America 18% (21%), South America and Africa 4% and 3% each for both years. Compared to this distribution, FCIT was heavily overweighted in each of North America (28% in 1900 and 31% in 1913) and South America (28% in 1900 and 31% in 1913). Correspondingly, the portfolios had large underweights in Europe and Asia-Pacific, approximately 40% and 20% respectively.

FCIT was truly the first diversified emerging markets investor. Using our definition of an emerging market, we can classify slightly less than 70% of world GDP in 1900 and 1913

as of "emerging" status.[24] This weighting greatly exceeded the market capitalisation weight which by definition reflects the underdeveloped nature of the local capital markets of these countries. FCIT allocated considerably more to these markets (88% in 1900, and 93% in 1913) than even the higher GDP weighting.

4.2 Comparison with Cumulative Capital Flows

Stone (1999) compiled and edited the aggregate statistics on British capital exports between 1865 and 1913. We make use of this data by cumulating the aggregate annual capital flows but, in so doing there are two caveats to keep in mind. First, we do not have information on the changes in investment positions for the whole British portfolio and so are forced to ignore reinvestment of income or divestment of previously acquired securities.[25] A second caveat concerns the pricing of the securities. Since Stone (1999) compiles the funds effectively subscribed by British investors to new foreign issues, all flows are valued at issue price and ignore any subsequent valuation changes. Nevertheless, any bias introduced by this omission is likely to be modest over the period considered here due to capital gains being small relative to income returns for both domestic and foreign securities and across the different markets.[26]

Tables 3 and 4 here

Bearing these caveats in mind, we compare the regional and sector breakdown of the FCIT portfolios with the British capital exports cumulated from 1880 at 5 yearly intervals beginning in 1885 and show the differences between the FCIT allocation and the regional share of cumulative capital flows (**Tables 3 and 4**).

Broadly speaking, FCIT replicates the characteristics of British investment abroad, documented in the literature, namely, a preference for investments in the regions of new European settlement and for such infrastructure investments as railways and public utilities (Feis 1930, Fishlow 1985, Davis and Gallman 2001). Yet, there are also marked differences in asset allocation. Regionally, FCIT was heavily underweighted in the Asia/Pacific region, and correspondingly overweight in American securities, especially South American (**Table 3,**

[24] Unfortunately, we cannot apply the same emerging market definition in sections 4.2 and 4.3 below given the lack of granularity in these alternative benchmark data.

[25] One option would be to reconstitute the evolution of the stock of British investments abroad by using a version of the permanent inventory methodology. That would require some assumptions about rates of return and attrition which would be open to criticism. There is, to be sure, a long literature on the estimation of the total return on the composite British portfolio (Edelstein 1982, Davis and Huttenback 1986, Chabot and Kurz 2010). However, it is practically impossible to identify which fraction of income was reinvested and in which securities. It is also virtually impossible to identify divestitures after the flotation of foreign securities and initial capital calls.

[26] On Britain see Grossman (2002), on France Le Bris and Hautcoeur (2010), Annaert et al. (2010) on Belgium, and on the US Goetzmann et al. (2001).

Panel C).[27] Second, somewhat ironically, FCIT had a much lower exposure to the British Empire than the aggregate of capital exports with an underweighting which ranged between 19% and 39% over the period (**Table 3, Panel C**).[28] Third, FCIT preferred a more conservative allocation of investments by industrial sector, favouring railways over natural resources and manufacturing after its change in investment scope in 1891 (**Table 4**).[29] This allocation policy seems to reflect the proclaimed conservative disposition of the FCIT trustees for the most liquid emerging market securities. Moreover, railway investments were made more attractive by the frequent official guarantees attached to them, and also by the relatively better disclosure of information to investors thanks to the many trade publications of the period that publicised construction rates, and traffic and income returns from railways around the globe (Bordo et al. 2000).

4.3 Optimal Portfolios

Following Goetzmann and Ukhov (2006) we employ mean-variance optimisation to estimate portfolios which maximised the portfolio return per unit of risk as expressed by the Sharpe Ratio at particular points in time. We make use of the Chabot and Kurz's (2010) data set from 1866 to 1907 and assume investors knew the historic annual returns beginning in 1866 for the 9 sectors of the investment universe: British government bonds, British corporate bonds, British stocks, Empire bonds, Empire stocks, Non-Empire bonds, Non-Empire stocks, US bonds and US stocks.

Since the optimal weights resulting from this type of portfolio optimisation technique are sensitive to minor changes in the expected returns of the assets we employ a bootstrapping procedure to improve the precision of our estimates. According to this procedure, we make 1000 random draws from the distribution of returns for each sector. On each draw, the vector of expected returns and the variance-covariance matrix is estimated, and the optimal portfolio weights computed. From the resulting distribution of optimal weights, we estimate their mean values for each of 1890, 1900, and 1907. Next, we exclude any sectors with a mean weight of less than 0.1%, and rerun the bootstrapping procedure. The mean optimal weights are reported in **Table 5,** Panel B, the corresponding actual FCIT portfolio weights in Panel A and the difference between the two in Panel C.

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[27] The interest of the FCIT promoters in American investment is further underscored by the creating of a dedicated vehicle, the "American Investment Fund, Ltd," set up in the 1873 with a capital of £1 million.

[28] This is not an artifact of our inability to value the aggregate British portfolio at market prices. Woodruff (1966) attempted to do so for two benchmark years, 1896 and 1913, and the share of imperial investments is even larger than on the cumulated flows.

[29] There is likely to be an interaction between the FCIT preference for fixed-income securities and the sectors it got to invest in. For instance, mining companies mainly floated shares, which limited the ability of a fund with the structure of FCIT to invest in them.

Table 5 here

There are two interesting conclusions to be drawn from this analysis. First, in general, bonds were more attractive than shares on a risk-adjusted basis with only Empire shares featuring in the optimal portfolios of 1900 and 1907. Second, foreign bonds and US and non-Empire bonds became progressively more attractive relative to British bonds, both corporate and government, as we move from 1890 to 1907. FCIT did not invest in British gilts, of course.

By 1907 its portfolios were quite close to those of the rational investor and reflected the diversification potential of making substantial allocations to the bonds of North America and countries outside the British Empire. The deviation from the optimal weights in the 'Other' component is mainly driven by a greater exposure to the shares of Latin American railways.

5. Performance

5.1 Buy-and-hold returns

As discussed in section 3, we have annual snapshots of the FCIT portfolios but no transaction data. We therefore estimate FCIT performance in terms of the buy-and-hold portfolio returns over each year from 1880 to the end of 1912. Given FCIT pursued a non-active investment strategy and exhibited low portfolio turnover, it seems appropriate to calibrate performance in this way. We can test this hypothesis about FCIT's buy and hold investment approach in two ways. The first regresses individual holdings of portfolio securities at book values on the contemporary and lagged prices of the same securities.[30] Since we measure prices at the end of each year, this model tests, in effect, whether the managers of FCIT reacted to price changes during the year. The results in **Table 6** show that the managers of FCIT did not directly react to short-term price movements. In addition and perhaps surprisingly, when we control for whether a security was in default during each year, FCIT did not change their allocations away from securities temporarily in default.[31] This is also confirmed if we estimate the model in differences, i.e. regressing any changes in the holdings of a particular security on its price change during the year. The last 2 columns of **Table 6** show that the decisions to increase or decrease the exposure to a given security were not reactions to short-run price movements.

Table 6 here

[30] We naturally exclude securities when they are included for the first time in the portfolio.
[31] FCIT noted which securities were in default in its annual reports. Note that we run a FGLS panel model because of the presence of panel autocorrelation.

We estimate the buy-and-hold total return for each security in a given year by summing the income, both interest and dividends, and capital appreciation for each security held by FCIT. Using the weightings of each security in the overall portfolio at the start of the year we sum the weighted returns to arrive at portfolio income returns, capital gains (and losses) and total returns in both nominal and real terms. The results are summarised in **Table 7**.

Table 7 here

Over the whole period, FCIT investors earned an average nominal return of 5.2% p.a. with a very modest standard deviation of 4.1%. Real returns were very similar. Since capital gains averaged only 0.6% per year, FCIT promised their investors income returns and delivered it without unduly risking their capital. Such returns compare very favourably with the 2.2% annual return offered by British Consols.

The major financial crises and panics are identifiable in **Table 7** - the French crises of 1882, 1888, and 1893, the Barings collapse of 1890, and the 1907 stock market crash. FCIT total returns turned negative in real terms in 1890-92, 1906, and 1912 and all classes of securities underperformed in the portfolio, except for 1892 when sovereign bonds unlike private securities recovered into positive territory. Strangely, the American panic of 1907 seems to be anticipated by a year both by FCIT portfolio returns and the aggregate indices of foreign securities, as we will see below. Significantly, this can be taken as evidence of the relatively small contagion from the US to the other emerging markets (Mauro, Sussman and Yafeh 2006).

Decomposing total returns by industry, it is clear that FCIT performance was driven by its investments in government and railroads securities, especially after the change in FCIT's investment objectives (**Figure 3**). The late 1890s and early 1900s in particular were especially profitable for overseas railway investments. Likewise, although the 1890 Baring crisis is usually associated with the sovereign market, starting with Argentina's default, FCIT's portfolio was mostly adversely affected through its holdings of bonds and preferred stock in Argentine and other South American railways. Although eschewing an active investment strategy, the managers of FCIT sometimes pursued a deep value strategy by investing in deeply discounted securities. Accordingly, they made substantial purchases of common and preferred railway stock in the US and South America trading at large discounts

to par. These securities quickly gained value in the following years and to such an extent that FCIT departed from its typical buy-and-hold strategy and realised some of those gains.[32]

The absence of capitalisation-weighted global benchmarks for this period makes it hard to assess how well the FCIT did relative to the market (or the investment trust industry). We can, however, compare FCIT returns to available total return indices for foreign bonds and foreign stocks from Chabot and Kurz (2010) for 1880-1907 and Edelstein (1982) for 1908-12 (**Figure 4**). We splice the two data series and create a composite index weighting the bond and stock index returns by the annual FCIT bond and stock allocations listed in Table 1.

Over the period 1880-1912, FCIT returned 5.2% p.a. versus 4.9% for the composite index displaying a slightly higher standard deviation of 4.1% versus 3.7% and a slightly better Sharpe Ratio of 0.68 against 0.66. The higher volatility is largely due to the adverse effect of the 1890 Baring crisis, despite coming through the 1893 Panama panic and especially the 1907 crisis relatively unscarred. It is also worth noting that FCIT returned considerably more than the 2.2% p.a. offered by British Consols over the same time horizon.

Figures 4 and 5

Although volatility was low, one concern of any investor in FCIT would be the extent to which he might suffer a period of low or even negative returns. We calculate the average annual portfolio real returns for all possible periods beginning in 1880 from one year up to a maximum of 33 years (**Figure 5**). The results are very creditable to FCIT. Over any 5 year period FCIT would have managed to generate positive real returns.

5.2 Share price and NAV

Since FCIT's preference and deferred shares were quoted on the LSE from 1880, we can also monitor share price performance.

Figure 6 charts the annual fluctuations in the returns to owning deferred shares from 1880 to 1912. There were four years of negative returns in 1890, 1891, 1893 and 1907, with only 1891 generating a double-digit fall (-14.6%); otherwise, total returns were positive throughout. Consistent therefore with their right to residual cash flows and bearing greater financial risk, investors in the deferred shares earned somewhat more, 6.9% p.a., thanks

[32] The largest appreciations were registered for the stock of the St Louis and San Francisco Railway Co. (between +200% and +300%, depending on the issues), and the Oregon Railway and Navigation Co. (+30%), with similar performances for the bonds of the Atcheson, Topeka and Santa Fé Railroad (some of which doubled in value), and the Calgary and Edmonton Railway Co (+56%).

largely to a higher income return, 5.6%. The preferred shares returned a steadier 4.5% p.a., with income return and capital appreciation averaging 4.0% and 0.5% respectively.

Figures 6 and 7 here

In keeping with industry practice, investors were not told the net asset value (NAV) of the underlying investments by the trust managers until well after WW1. However, a diligent shareholder with lots of time on their hands might have been able to price the underlying portfolio once per year as we have tried to do. In estimating the NAV of FCIT, we treat the preference shares as a prior fixed claim on the net assets of the trust. We then compare the NAV attributable to deferred shareholders with the deferred share price at each December year end, to determine whether the shares traded at a premium/discount to NAV.

The deferred shares according to the results graphed in **Figure 7** appeared to trade at discount throughout 1880-1912. Investor sentiment, then as now, offers a partial explanation of the observed fluctuations in the discount. The FCIT discount reached a low of 32% in 1900 and narrowed to 2% in 1890. According to Dice (1929), English investors' 'infatuation' with the prospect of large yields offered by investment trusts led to an investment mania in this sector. However, the trust managers encountering difficulty in finding attractive securities were forced to invest in more speculative propositions or even in the shares of other trusts, leading to "pyramiding". This investment frenzy climaxed in the Barings crisis of 1890 and the trusts subsequently experienced substantial losses. The narrowing of the FCIT discounts up to 1890 and their widening thereafter seem consistent with this market episode.

The discount averaged 17% over the whole period. Closed end fund discounts are also common in both the UK and US in the modern era since the 1970s, especially in the UK when the average discount reached 50%.[33] Several explanations have been put forward for such persistent discounts among them illiquid securities, tax and agency problems with the investment managers (Dimson and Minio-Kozerski, 1999). The latter two rationales are less applicable to the pre-1913 era. However, the presence of illiquid securities representing between 10% and 15% of the total portfolio does seem a plausible explanation for the level of discount observed. Whilst contemporary investors did not pay any attention to NAV as such, the shares did not appear to trade outside the bounds of what modern investors have come to expect.

5.3 Comparison with Emerging Markets Today

[33] Dimson and Minio-Kozersky (1999), p.7, Figure 1.

Following the first era of financial globalisation, global capital markets regressed along with the prospects for emerging market investing. As Goetzmann and Jorion (1999) put it, some of these markets now became “submerged” markets. The opportunity to diversify portfolios by investing in emerging market debt did not re-present itself until the creation of Brady Bonds out of defaulted Latin American debt in 1989. In 1993, Templeton and Morgan Stanley launched the first closed end funds on the NYSE specialising in emerging market debt and sovereign bonds in particular. At the end of the same year, the recognised emerging market debt benchmark, the J.P. Morgan Emerging Markets Composite Index (EMBI), was initiated. From inception through the end of 2010, EMBI returned in USD 11.7% p.a. compared to 8.6% and 3.3% for US Treasury 30-year Bonds and Bills respectively. EMBI volatility was slightly lower at 15.8% versus 16.8% for the US long bond.

Hence, in the modern era spanning a period of 17 years, emerging market debt generated a premium of 3.1% p.a. over the domestic government bond alternative, whilst in the pre-WW1 era spanning a period of 33 years, FCIT returned an identical premium over Consols as we saw in section 5.1. Moreover, this return premium was earned with much lower volatility, only 4.7% compared to 15.8% in the recent past. Similarly, the Sharpe Ratio was higher at 0.67 in the earlier period compared to 0.53. The greater return volatility recently largely reflects the poor performance of emerging debt compared to US government debt in the difficult years of 1994 (Peso crisis -23%,), 1998 (LTCM, -19%) and 2008 (sub-prime crisis, -26%). In summary, emerging debt in the first era of financial globalisation offered investors a substantial return premium with substantially less risk.

6. Conclusion

FCIT provided the average investor with the opportunity to diversify his portfolio into emerging markets during the first era of financial globalisation at an extremely low cost compared to the management fees charged by today’s asset managers. Back in the late 19th century, when it would be too costly both in time and money for individual investors to try and replicate such a portfolio, this proved to be a highly attractive and convenient solution for the majority of the investment public.

The trust’s heavy investment in emerging market bonds and in the American continent in particular paid off. The fund’s NAV averaged returns in excess of British Consols and of the global ex-UK benchmark whilst also offering a better risk-return trade-off. Furthermore, its portfolios were close to how the rational investor would have invested based on mean-variance optimisations using historic asset returns. Unlike emerging market

investors in the modern period, FCIT investors experienced only one substantial downturn in the early 1890's and much less volatility over the period as a whole.

The trust's deferred shares offered an attractive 6.9% return in excess of its NAV performance benefitting from the leverage provided by the issue of preference shares. Whilst the deferred shares consistently traded at a discount to the NAV of the underlying investments, the level of discount was not out of line with what investors a century later experienced and reflected the exposure to illiquid securities in the portfolio.

FCIT delivered to the investing general public what it promised at very modest cost. In so doing, it illustrated the attractions of the investment trust model and resisted the temptations to engage in pyramiding, over-leveraging and speculation which came to characterise the investment trust sector in Britain before WW1 and in the US in the late 1920s. There could be no higher testament to FCIT's attractions than the fact that this was the only investment trust share which John Maynard Keynes included in the security portfolio he managed for his father before WW1. FCIT stands as a shining example of a highly successful financial innovation.

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Table 1: FCIT portfolios by security type

	No. securities				Security type (% market value)				Portfolio		
Year	Total	Stock	Bonds	Other[1]	Cmn. Stock	Pref. Stock	Bonds	Other[1]	Total value £000	Perpetuals % [3]	Maturity Yrs [3]
1880	94	6	87	1	2.3	3	94.7	0	2,827	68	22
1881	92	7	84	1	2.2	4.1	93.7	0.1	2,893	72	23.2
1882	96	9	86	1	3.4	2.8	91.6	2.2	2,859	70	23.3
1883	98	11	86	1	4.6	2.8	90.5	2.2	2,836	70	24.8
1884	105	12	92	1	5.7	2.7	89.5	2.1	2,912	69	27.2
1885	119	13	105	1	7.8	2.7	87.6	2	2,971	65	27.1
1886	112	13	98	1	8	2.7	87.4	1.9	3,105	65	26.7
1887	122	15	106	1	8.7	2.5	87	1.8	3,108	64	28.8
1888	133	15	117	1	5.4	6.3	86.6	1.7	3,178	66	29.4
1889	148	17	130	1	3.5	6.4	88.5	1.6	3,195	65	32.7
1890	163	18	144	1	3.8	6.9	87.8	1.4	3,058	59	34.1
1891	201	16	184	1	2.6	5.2	90.6	1.6	2,727	53	36.6
1892	216	17	197	2	2.5	5.6	90.4	1.6	2,699	49	36
1893	235	16	217	2	2.3	3.1	92.9	1.7	2,505	45	37.1
1894	251	18	231	2	2.5	3.1	92.8	1.6	2,647	47	38.7
1895	257	18	237	2	2.9	3.2	91.9	2	2,709	46	39.2
1896	265	24	238	3	2.4	13	82.6	1.9	2,989	44	40.7
1897	268	25	239	4	2.9	10.7	84.6	1.8	2,961	42	40.2
1898	269	26	240	3	2.6	8.6	86.6	2.2	2,946	41	39.9
1899	267	33	232	2	4.5	8.7	85.1	1.7	3,006	40	39.6
1900	267	32	232	3	5	8.7	84.3	1.9	3,094	40	40.3
1901	259	25	231	3	6.1	5.8	86.3	1.9	3,012	39	40
1902	262	24	235	3	5.8	5.8	86.8	1.6	3,126	37	40.9
1903	269	21	245	3	4.6	6.1	87.7	1.5	3,099	33	39
1904	282	23	256	3	4.7	3.4	90.9	1	3,258	33	38.6
1905	275	21	251	3	5.5	3.6	89.7	1.2	3,242	33	38.9
1906	285	21	261	3	5.5	3.3	90.1	1.1	3,287	32	38.6
1907	297	20	274	3	5.1	3.6	90.3	1.1	3,126	30	37.5
1908	295	17	276	2	4.7	3.4	90.9	1	3,182	29	37.5
1909	300	19	279	2	4.8	2.8	91.5	0.9	3,274	27	38
1910	299	18	278	3	4.8	2.9	91.3	1	3,291	26	36.9
1911	303	18	283	2	5	2.8	91.7	0.5	3,293	24	36.1
1912	313	19	293	1	5.2	2.7	91.9	0.1	3,325	25	36.1
1913	312	20	291	2	5.6	2.9	91.4	0.2	3,024	22	36.3
Mean					4.5	4.8	89.3	1.4	3,022	46	34.8

[1]Scrip certificates and deferred interest warrants. [2]Percentage of perpetual bonds in portfolio. [3]Average maturity (years) of bonds, excluding perpetuities.

Source: FCIT Annual Reports

Table 2: Country allocation of FCIT investments 1880-1913

Country (ISO code)	Emerging Market	Number of securities			Maximum exposure (£m)[1]		
		Total	Gov't	Private	Total	Gov't	Private
ARGENTINA	1	155	55	100	78.48	29.84	48.64
AUSTRALIA	1	15	9	6	7.25	6.38	0.87
AUSTRIA	0	5	3	2	10.31	7.38	2.93
BULGARIA	0	4	2	2	1.26	0.91	0.35
BRAZIL	1	60	17	43	43.86	11.63	32.23
BARBADOS	0	4	0	4	3.77	0.00	3.77
CANADA	1	21	5	16	9.00	1.09	7.91
CHILE	1	27	12	15	11.77	8.42	3.35
CHINA	1	12	11	1	4.33	4.16	0.17
COLOMBIA	1	1	1	0	0.20	0.20	0.00
COSTA RICA	1	10	4	6	2.16	0.71	1.44
CUBA	1	12	1	11	5.04	0.04	5.00
CZECH REP.	0	1	0	1	0.20	0.00	0.20
GERMANY	0	4	3	1	0.60	0.41	0.19
EGYPT	1	11	9	2	18.27	18.17	0.10
SPAIN	1	5	5	0	15.06	15.06	0.00
FRANCE	0	4	1	3	6.01	2.26	3.75
BRITAIN	0	43	0	43	8.41	0.00	8.41
GREECE	1	5	3	2	1.74	1.24	0.49
GUATEMALA	1	1	1	0	0.08	0.08	0.00
HUNGARY	1	6	6	0	6.70	6.70	0.00
INDIA	1	10	4	6	13.82	10.08	3.74
ITALY	0	13	5	8	17.59	10.71	6.88
JAPAN	1	12	12	0	4.55	4.55	0.00
SRI LANKA	1	2	0	2	0.53	0.00	0.53
MEXICO	1	45	9	36	21.89	5.01	16.89
BURMA	1	1	0	1	0.24	0.00	0.24
NICARAGUA	1	3	3	0	0.85	0.85	0.00
NETHERLANDS	0	2	0	2	0.39	0.00	0.39
NEW ZEALAND	1	12	6	6	4.14	2.19	1.95
PERU	1	1	1	0	1.18	1.18	0.00
PHILIPPINES	1	6	0	6	1.87	0.00	1.87
PORTUGAL	1	1	1	0	3.14	3.14	0.00
PARAGUAY	1	2	0	2	0.86	0.00	0.86
ROUMANIA	1	8	6	2	5.36	5.18	0.18
RUSSIA	1	12	3	9	12.31	7.66	4.64
SERBIA	1	2	2	0	0.37	0.37	0.00
SWEDEN	1	4	1	3	0.61	0.07	0.54
THAILAND	1	2	2	0	0.69	0.69	0.00
TRINIDAD&TOB.	0	1	0	1	0.36	0.00	0.36
TURKEY	1	23	16	7	21.28	19.76	1.53
URUGUAY	1	11	6	5	4.59	2.37	2.22
USA	1	282	18	264	103.18	9.52	93.67
VENEZUELA	1	10	4	6	4.29	0.58	3.71
SOUTH AFRICA	1	8	4	4	2.16	1.20	0.96
RHODESIA	1	3	0	3	0.95	0.00	0.95
Total		**882**	**251**	**631**			

[1] Value of maximum holdings of securities of each country 1880-1912.

Sources: FCIT Reports to AGM and Data Appendix

Table 3: Comparison of FCIT Regional Allocation with Cumulative Capital Flows (%)

Panel A tabulates the FCIT regional weights at market values for the years given. In Panel B cumulative capital flows data is from Stone (1999). Panel C reports the FCIT position compared to the cumulative capital flows benchmark.

%	1880	1885	1890	1895	1900	1905	1910
Panel A: FCIT							
North America	6.3	10.9	12.5	45.2	46.3	43.8	50.2
South America	15.8	23.1	31.8	26.0	31.5	37.5	37.2
Europe	49.4	39.9	26.7	17.0	12.4	8.5	5.7
Africa	8.4	7.7	7.6	1.3	1.1	1.2	0.7
Asia/ Pacific	20.1	18.4	21.4	10.5	8.7	9.0	6.2
British Empire	15.1	22.3	19.2	8.8	9.1	6.9	3.5
Panel B: CUM. FLOWS							
North America	44.2	31.7	32.0	32.6	29.7	30.4	32.5
South America	7.5	13.1	21.6	19.0	16.9	15.3	17.0
Europe	6.1	13.7	10.8	9.6	9.6	8.1	8.1
Africa	6.4	7.4	5.6	7.2	9.8	14.7	13.3
Asia/ Pacific	35.8	34.1	30.0	31.6	34.0	31.4	29.1
British Empire	45.3	44.4	38.0	41.5	44.2	44.6	42.4
Panel C: FCIT - CUM. FLOWS							
North America	-37.9	-20.8	-19.5	12.6	16.6	13.4	17.7
South America	8.3	10.0	10.2	7.0	14.6	22.2	20.3
Europe	43.2	26.2	15.8	7.5	2.9	0.4	-2.4
Africa	2.0	0.3	2.0	-5.9	-8.7	-13.5	-12.6
Asia/ Pacific	-15.7	-15.7	-8.6	-21.1	-25.4	-22.4	-22.9
British Empire	-30.1	-22.1	-18.8	-32.6	-35.1	-37.7	-39.0

Table 4: Comparison of FCIT Sector Allocation with Cumulative Capital Flows (%)

Panel A tabulates the FCIT sector weights at market values for the years given. In Panel B Cumulative capital flows data is from Stone (1999) Panel C reports the FCIT position compared to the cumulative capital flows benchmark.

%	1880	1885	1890	1895	1900	1905	1910
Panel A: FCIT							
Gov't	82.4	69.1	57.4	31.7	26.8	28.8	23.8
Railroads	13.6	25.4	37.3	59.0	59.7	51.2	52.9
Utilities	0.2	0.0	0.5	3.0	4.4	7.1	12.1
Financial	0.0	0.0	0.0	0.7	1.9	1.7	2.0
Natural resources	0.0	2.0	1.5	1.9	2.3	2.6	2.6
Mfg & misc.	3.8	3.4	3.3	3.7	5.1	8.6	6.6
Panel B: CUM. FLOWS							
Gov't	32.2	40.1	34.9	35.6	34.8	35.5	34.2
Railroads	38.7	33.4	35.3	33.1	30.4	31.7	32.3
Utilities	3.9	4.1	4.3	4.2	4.1	4.2	5.3
Financial	5.7	8.9	9.8	10.5	9.2	8.3	7.9
Natural resources	10.1	7.0	7.4	8.7	12.9	12.4	12.2
Mfg & misc.	9.4	6.5	8.3	8.0	8.6	7.9	8.1
Panel C: FCIT - CUM. FLOWS							
Gov't	50.2	29	22.5	-3.9	-8	-6.7	-10.4
Railroads	-25.1	-8	2	25.9	29.3	19.5	20.6
Utilities	-3.7	-4.1	-3.8	-1.2	0.3	2.9	6.8
Financial	-5.7	-8.9	-9.8	-9.8	-7.3	-6.6	-5.9
Natural resources	-10.1	-5	-5.9	-6.8	-10.6	-9.8	-9.6
Mfg & misc.	-5.6	-3.1	-5	-4.3	-3.5	0.7	-1.5

Table 5: Optimal Portfolio Allocation (%)

Panel A lists the mean weights for the three optimal weights based on the annual returns from 1866 until 1890, 1900 and 1907 respectively for the following nine assets: British corporate bonds, British government bonds, British stocks, Empire bonds, Empire stocks, US bonds, US stocks Non-Empire bonds and Non-Empire stocks. "Other" sums the negligible allocations to British Shares, US shares, Non-Empire shares and Empire Bonds. See text for a discussion of the portfolio optimisation methodology. Panel B gives the corresponding weights in the actual FCIT portfolio for the same terminal dates. Panel C is the difference between the FCIT weights and the optimal portfolio weights.

Panel A:	**FCIT**					
Year	British Corporate Bonds	British Govt Bonds	Empire Shares	US Bonds	Non-Empire Bonds	Other
1890	0	0	1.1	3.5	67.7	27.7
1900	1.2	0	2.1	33.7	44.3	18.7
1907	2.8	0	0.6	35.5	47.5	13.8
Panel B:	**Optimal Weights**					
Year	British Corporate Bonds	British Govt Bonds	Empire Shares	US Bonds	Non-Empire Bonds	Other
1890	53.0	34.7	0.1	2.1	9.9	0.1
1900	23.5	19.1	4.0	31.6	19.9	1.9
1907	13.7	2.8	5.1	41.2	35.4	1.8
Panel C:	**FCIT – Optimal Weights**					
Year	British Corporate Bonds	British Govt Bonds	Empire Shares	US Bonds	Non-Empire Bonds	Other
1890	-53.0	-34.7	1.0	1.4	57.8	27.6
1900	-22.3	-19.1	-1.9	2.1	24.4	16.8
1907	-10.9	-2.8	-4.5	-5.7	12.1	11.0

Table 6: Tests of investment strategy

Dependent variable	**(1) Book Value**	**(2) Increase in holdings**	**(3) Decrease in holdings**
Constant	8.547***	3.05***	-3.076
	(0.002)	(0.684)	(2.118)
Price	-0.001		
	(0.002)		
Lagged price	-0.001		
	(0.001)		
Default	0.0001	-0.105	0.06
	(0.001)	(0.159)	(0.072)
Change in price		-0.219	0.037
		(0.178)	(0.460)
Security FE	Yes	Yes	Yes
N	6309	509	1053
$\overline{R}^2$		0.292	0.624
Method	FGLS panel	Pooled LS	Pooled LS

Note: all values in logs or differences of logs

Table 7: FCIT Investments - annual buy-and-hold returns (%)

	Nominal Returns				Real Returns[1]
Year	**Total**	**Capital gains**	**Income**	**St Dev(within year)**	**Total**
1880	9.72	5.04	4.68	16.88	9.35
1881	3.53	-1.32	4.85	7.05	3.60
1882	4.08	-1.11	5.18	9.30	4.12
1883	7.32	2.02	5.30	8.93	7.32
1884	5.86	0.71	5.16	8.56	6.17
1885	11.92	6.78	5.14	45.92	12.71
1886	3.59	-1.26	4.85	6.43	3.67
1887	10.42	5.46	4.96	41.06	10.54
1888	4.80	-0.01	4.81	11.00	4.80
1889	1.33	-3.72	5.06	16.37	1.32
1890	-7.88	-12.92	5.04	19.23	-7.88
1891	4.28	-0.61	4.89	20.58	4.28
1892	-0.41	-4.73	4.32	12.85	-0.40
1893	7.40	2.83	4.57	17.95	7.48
1894	6.02	1.61	4.41	22.68	6.31
1895	5.65	1.34	4.31	15.48	5.78
1896	8.15	3.88	4.27	22.06	8.15
1897	13.98	9.79	4.19	8.87	13.65
1898	4.13	0.05	4.07	14.28	3.99
1899	7.45	2.93	4.52	27.70	7.62
1900	7.07	2.40	4.67	9.50	6.69
1901	6.73	2.22	4.51	10.59	6.80
1902	4.39	-0.07	4.45	12.12	4.39
1903	8.38	3.93	4.45	12.12	8.29
1904	8.19	3.86	4.33	14.61	8.10
1905	2.58	-1.72	4.30	9.77	2.47
1906	-0.39	-4.67	4.28	7.46	-0.39
1907	6.51	2.01	4.50	12.21	6.65
1908	6.52	2.09	4.42	9.35	6.45
1909	4.76	0.22	4.54	6.17	4.66
1910	4.07	-0.53	4.60	9.37	4.03
1911	3.17	-1.49	4.66	5.02	3.08
1912	-0.38	-4.96	4.58	8.61	-0.37
Average	**5.24[2]**	**0.60[2]**	**4.63[2]**	**14.55**	**5.25[2]**

[1]Nominal returns deflated with CPI from Mitchell (1993). [2]Geometric average.

Figure 1: FCIT investments - regional breakdown (market values)

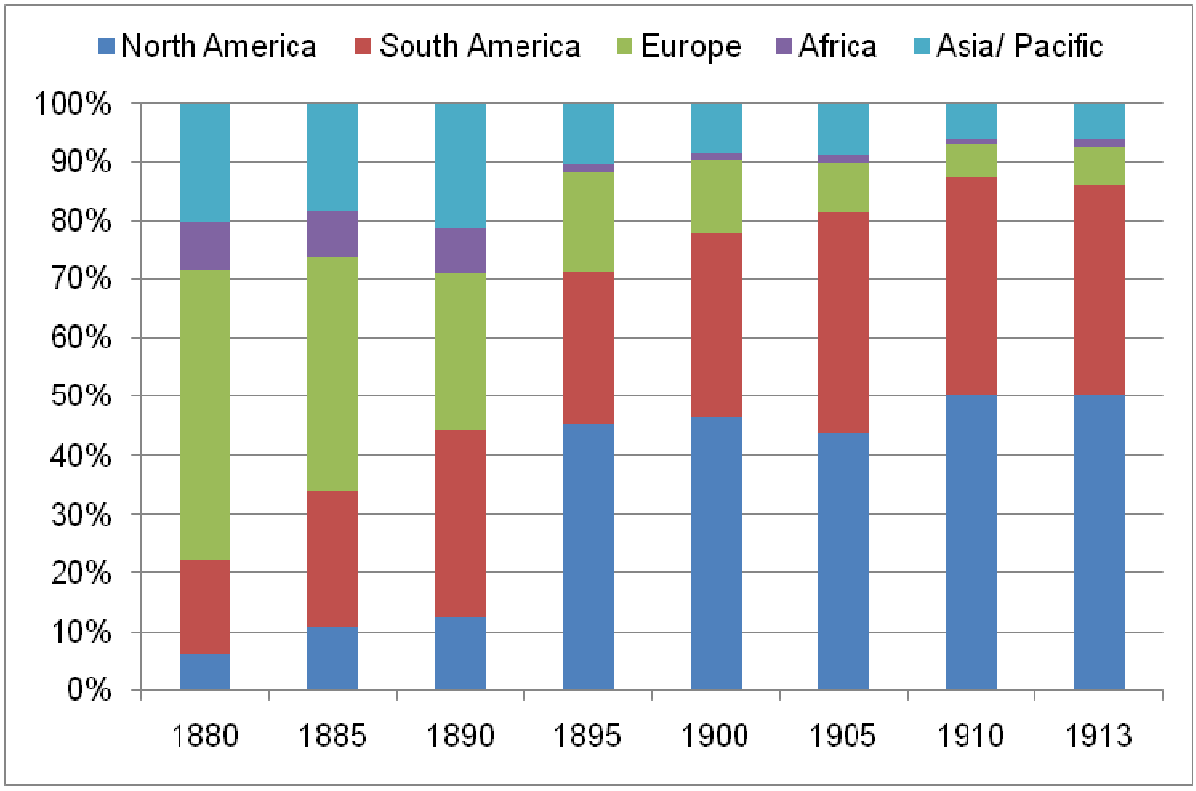

Figure 2: FCIT investments - sector breakdown (market values)

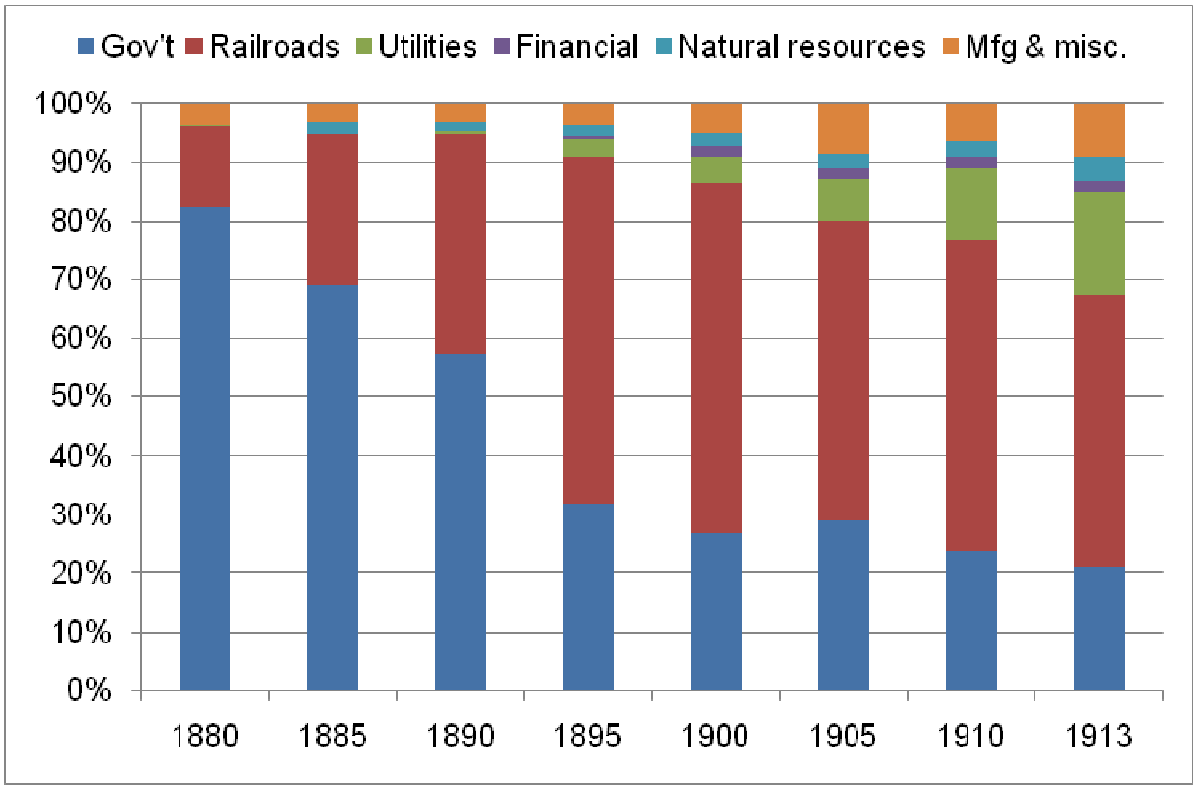

Figure 3: FCIT total return decomposition by sector

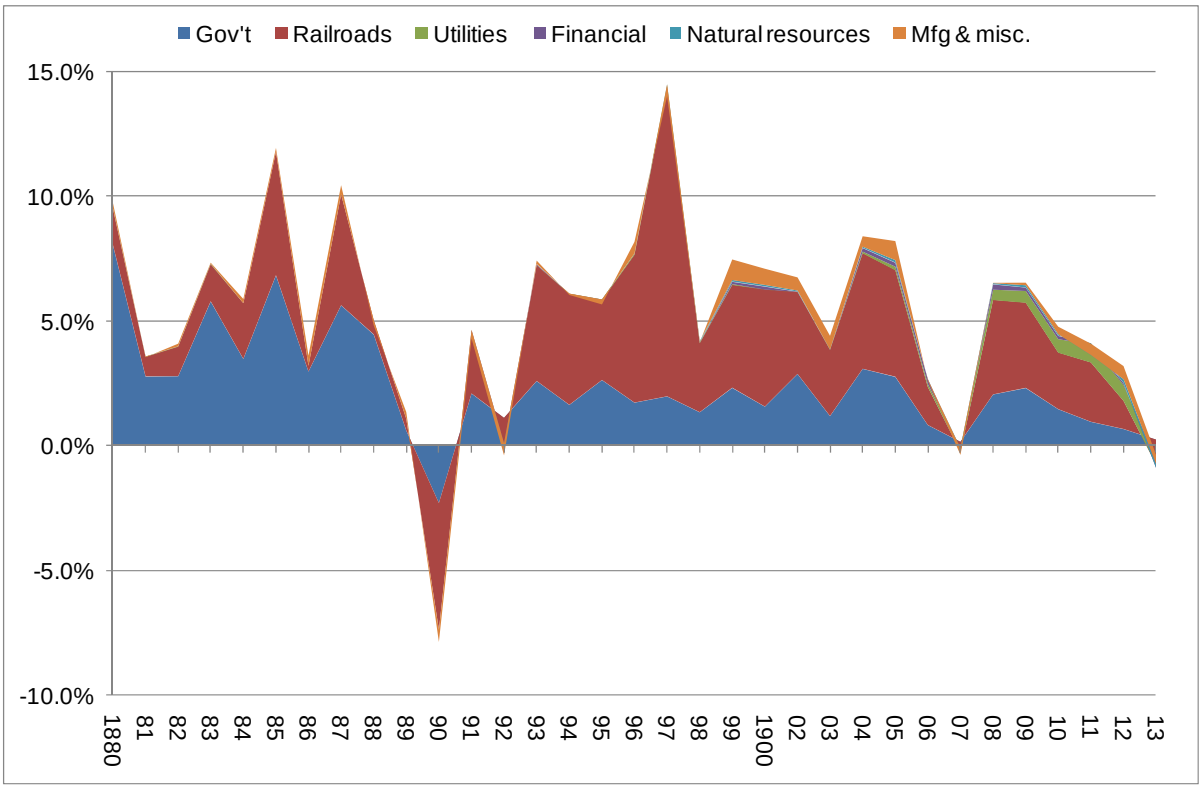

Figure 4: FCIT annual returns (%) versus the Benchmark 1880-1912

FCIT annual returns are buy-and-hold returns. The Benchmark returns are taken from Chabot and Kurz (2010) for 1880-1907 and spliced with Edelstein (1982) for 1908-12.

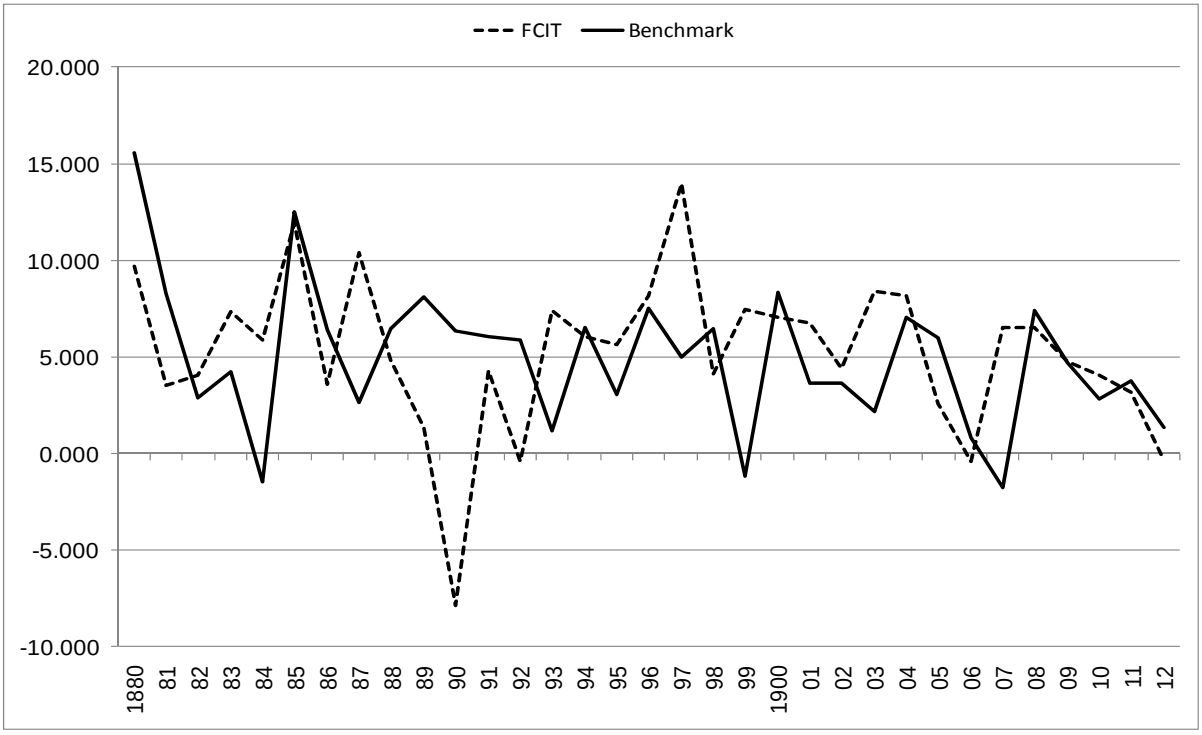

Figure 5: FCIT real buy-and-hold return dispersion over holding periods up to 33 years

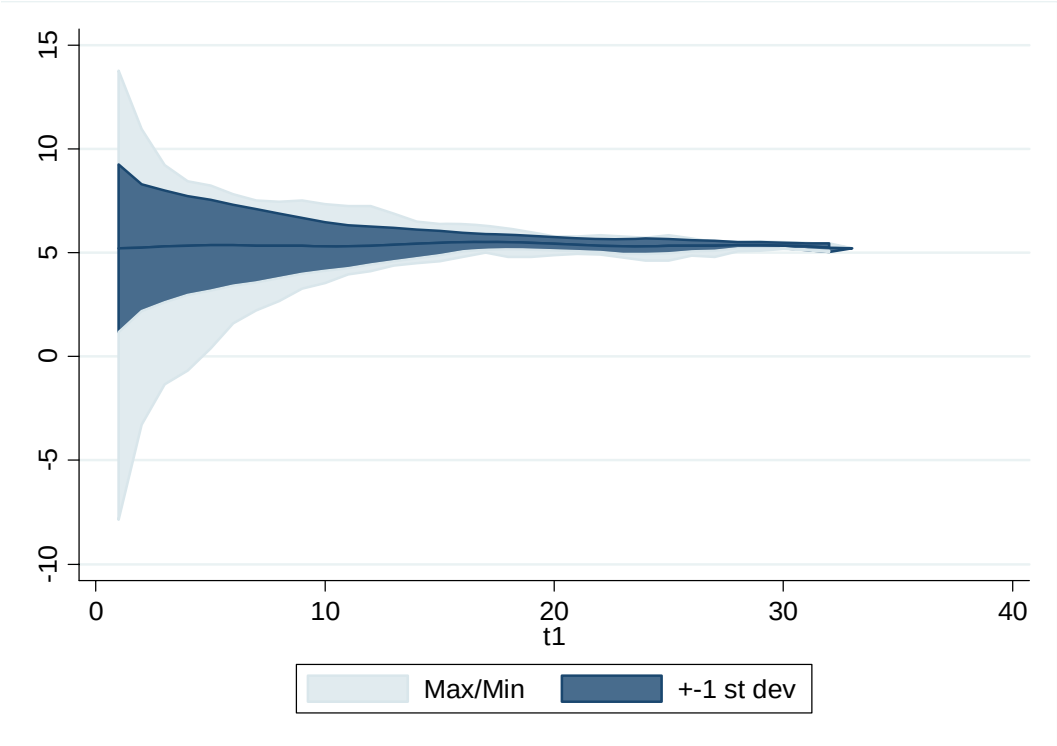

Figure 6: FCIT deferred shares - annual total returns 1880-1912

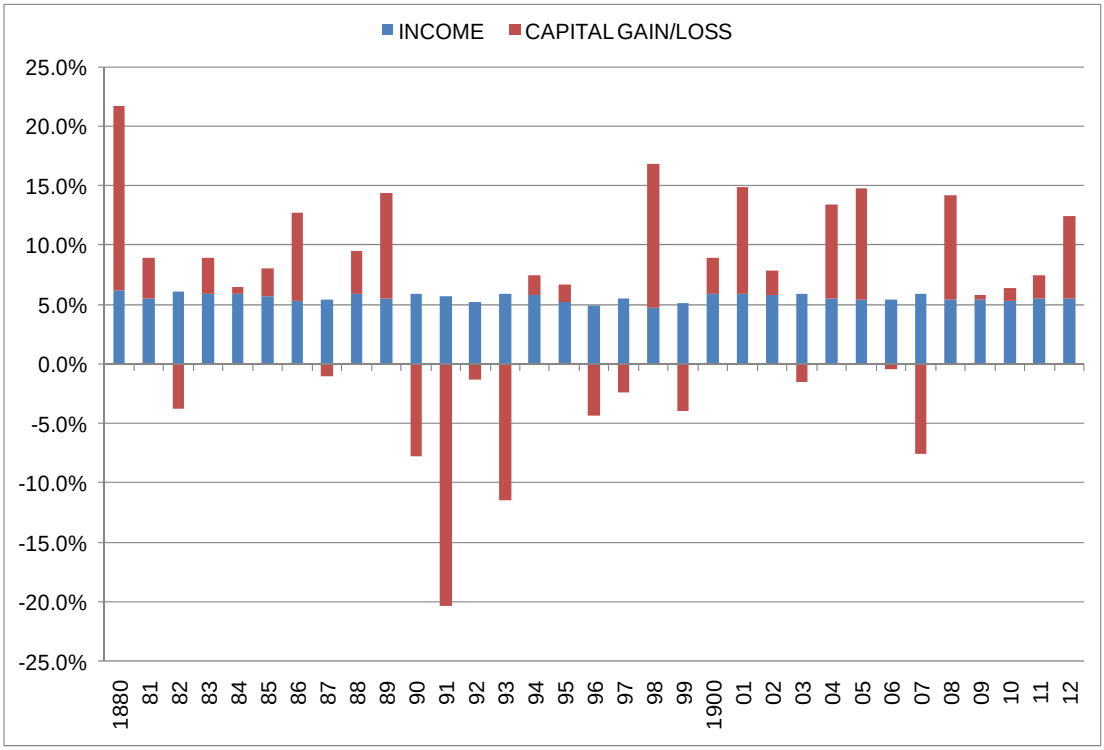

Figure 7: FCIT Deferred share price premium/discount to NAV per share (%)