**Title Page**

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**Student managed investment funds: experiences of a Fund at a UK University**

**Abstract**

First founded in 1950, Student Managed Investment Funds (SMIFs) have spread widely across the US and Canada with over 400 now documented. SMIFs have taken longer to develop elsewhere. In Europe SMIFs are most popular in the UK with about 30 funds known to the authors. This paper adds to the available literature by documenting the operation of UK SMIFs and details the differences between these funds and typical North American SMIFs. In addition we describe and evaluate the foundation and operations of the Fund, run by students at a university in the North of England and one of the oldest funds in the UK. Our description of the Fund provides resources and guidance for others who might seek to establish such a fund. Our evaluation considers the strengths and benefits of student partnership and co-creation but also examines the challenges faced through the lens of student equity and inclusion.

Key words: Investments, Student-managed investment fund, students as partners, inclusion, equity

**Confirmation:** This work is original, is the above named authors’ own work and is not currently under review with any other journals.

**1. Introduction**

Since the first SMIF was founded in 1950 the industry has gathered momentum slowly but surely, from seven SMIFs in operation in the United States (US) by 1970 and 22 in 1988 (Lawrence, 1990), to 441 in 2018 (Kubik, 2018). Despite the huge pedagogical and career benefits of being a SMIF analyst (see for example Arena and Krause (2020)) on the benefits of experiential learning and Bolster and Platt (2018) on the benefits in students’ job searches), the growth of SMIFs outside the US has been much slower and much less is known about them. Lawrence (2008) reported 25 non-US SMIFs, 16 of which were in Canada. He reported just two SMIFs in the UK, which has now grown to 29, plus two we are aware of in the Republic of Ireland and one in Maastricht (see Appendix 1 which provides details of these SMIFs). Joseph et al. (2023) report 16 SMIFs in India.

This paper builds on the work of Phillips, Volker and Cockrell (2020) who outline a successful pedagogical approach to the organisation of a credit-bearing US SMIF. It adds to the literature in three ways. Firstly the paper expands the literature by looking beyond a US context, this is ‘*critical for understanding regional and institutional determinants of SMIF structure and success*’ (Abukari et al., 2021, pp. 1627). The literature on Student Managed Investment Funds (SMIFs) is overwhelmingly US-based (Abukari et al., 2021). This is the first paper to describe the UK SMIF scene and list all known UK SMIFs. The paper reports in detail the foundation and operation of a UK non-credit-bearing SMIF (thereafter referred to as ‘the Fund’), and examines how UK funds typically differ from their US counterparts in particular the absence in the UK of course-based SMIFs done for credit. The SMIF, which is run by students at a university in the North of England is structured as a student club, where students invest university endowment funds overseen by university staff. All UK and Irish SMIFs to our knowledge work in a similar way. Secondly, the paper provides a detailed framework for the establishment of a non-credit-bearing SMIF, including the establishment of an annual SMIF conference, the first SMIF conference to be run outside of the US. The majority of US SMIFs are embedded within a programme of study therefore there is a dearth of literature with respect to this type of fund although we do know other SMIFs are structured in this way (Joseph et al. 2023). Finally the paper moves beyond the more structural challenges of setting up and managing a SMIF and also the reporting on the performance of the fund which are covered plentifully in literature albeit in a US context (Abukari et al., 2021) and examines the learning environment through the lens of inclusive education.

The paper proceeds as follows. In Section two we provide a survey of the important literature on SMIFs. (For a dedicated recent survey of the literature we refer the reader to Abukari et al. (2021)). In Section three we detail the methods used in this case study, details of returns calculations are also given and how the search for other UK SMIFs was undertaken. Section four sets out the history and operations of the Fund, from inception in 2013 to the present at a level of detail to support colleagues who may wish to set up or develop similar provision at their own institution. Section five evaluates the Fund across the following key areas: organisation of the Fund, learning environment and the investment strategy and returns. Finally section six concludes on the findings and makes suggestions for future SMIF research, in particular how a unified database of all SMIF votes would both improve investment returns and the visibility of the SMIF literature in academic finance and how SMIFs offer opportunities for collaborative research projects with students and the opportunities that these bring.

**2. Literature Review**

The first SMIF was founded in 1950 at Lafayette College in Easton, Pennsylvania, however the literature has taken longer to develop, with the first paper in 1975 and only a handful of papers up to the year 2000. The two special issues in Managerial Finance in 2020 greatly increased the available literature. The literature on SMIFs can be logically divided into three groups: firstly, papers that describe the foundation and operations of the authors’ ‘home’ SMIF (the majority), secondly, surveys which largely seek to establish the prevalence and characteristics of SMIFs, and finally, descriptions of portfolio performance or the unique ways that SMIFs can benefit student learning and careers. What emerges from the literature is that while there is a plethora of US literature on the subject of “How we formed and run our SMIF”, successive surveys have not systematically documented the characteristics, operation and investment performance of SMIFs and there are very few studies outside the US (Abukari, 2021). Furthermore, whilst existing literature examines the ways in which SMIFs have benefited student learning and careers, there is no literature which critically evaluates these strengths and considers the challenges for operationalising SMIFs particularly in the area of inclusive practice.

The first academic paper on SMIFs was Belt (1975) who wrote about the SMIF at Texas Christian University (TCU) that he had founded in 1973. Other papers before the year 2000 are Hirt (1977), (also TCU) and Bear (1984), (Stetson University). Later papers include Markese (1984) (SMIF operations at De Paul University), Tatar (1987) (Virginia Military Institute), Block and French (1991) (TCU a third time), Cox and Gough (1996) (the investment *club* at Appalachian State University) and Kahl (1997) (University of Akron). A majority of papers in the two special issues of Managerial Finance in 2020 dedicated to SMIFs, were concerned with the operation of the authors’ own SMIF and almost all considered US-based credit-bearing SMIFs. One exception to this was a paper by Oldford (2020) at Memorial University of Newfoundland who contributed the first paper on SMIFs written by a non-US author, although this is also embedded within a credit-bearing module.

Most SMIFs are set up thanks to a single donor and invest in common stocks. A minority are set up with funds from the university endowment fund, for example, at Loyola University Maryland (D’Souza and Johnson, 2019) and George Mason University (Horstmeyer, 2020). More unusual methods of funding include Cameron University which took out a $0.5 million bank loan to form a fixed income portfolio (Bhattacharya and McClung, 1994), and the 25 SMIFs funded by the Tennessee Valley Authority Investment Challenge Program (Haddad et al., 2020). While most SMIFs invest only in common stocks, a handful of US SMIFs invest in fixed income (Howe et al., 2020). Dewally and Drause (2009) and Dolan et al. (2018) describe SMIFs that invest in a portfolio of exchange-traded funds, which is particularly useful to reinforce the teaching on economics and econometrics courses. Among unique ways to use SMIFs, Howe et al. (2020) compare the operations of an equity-orientated and a fixed-income fund of funds, both at Illinois State University. They note that there is lots of employer interest in the graduates of the fixed income fund as such skills are so rare. Huerta and Pyles (2020) describe their program at the College of Charleston in which students manage both Private Equity investments and a public asset fund. Hughen and Lung (2020) explain how their students at the University of Denver use options strategies, in particular buying collars around the time of earnings announcements.

There have been several surveys of SMIFs, but they overwhelmingly confine themselves to the US. Lawrence (1990) reported that there were seven US SMIFs in existence by 1970 and 22 US SMIFs in 1988. Lawrence (1994) reported 37 funds at 34 US universities as of June 1993. Neely and Cooley (2004) list 128 funds, again all in the US. They found most SMIFs operated within courses that ran across single semesters or one academic year, ran only one fund and had obtained funds either from individuals or families or university endowments. Lawrence’s (2008) survey is the first that makes any mention of non-US SMIFs. Lawrence lists 25 SMIFs in the following countries: 16 in Canada, two each in India and the UK, and one each in Australia, Guam, Israel, the Netherlands and New Zealand. In the UK, Lawrence (2008) reports SMIFs at London Business School and the University of Edinburgh, both of which still exist. Even outside the US, SMIFs’ “market penetration” is US-centric and Anglophone-centric. Peng et al. (2009) attempted to survey all 205 SMIFS in the Association of Student Managed Investment Programs but only got 35 usable responses. For those that did reply they reported fund ‘biographical’ details such as launch date, fund size, information sources used and asset allocation. Chincarini and Le (2018) report 36 SMIFs outside the US, adding to Lawrence’s (2008) list to report 18 in Canada, five in Australia, three each in India and the UK (including York), two in the Netherlands and one each in Guam, Ireland, Israel, New Zealand and Singapore. Crabb et al. (2018) looked at a sample of 60 SMIFs split into those at large and small institutions. Restrictions at universities with more than 10,000 students were more severe, with 2/3rds running as taught classes rather than clubs, thus likely restricting the students able to join the class to business disciplines. Also 43% of SMIFs at large institutions were restricted to US investment only, probably due to the limited amount of time for oversight by staff. For small colleges (fewer than 5,000 students), restrictions to taught classes and US-only investments were respectively 23% and 10% of colleges, thus giving interested students more chances to learn about investment and a wider choice of investments. Kubik (2018) surveyed 441 specifically US-only SMIFs and got 104 responses. Kubik gives some more details than Peng et al. (2009) such as statistics about the institution, SMIF enrollment demographics, dividend policy and returns. As Boughton and Jackson (2020) observe, “*The identification of international SMIFs is virtually non-existent in the literature.*” (pp.486). Adding to the survey literature, Boughton and Jackson (2020) surveyed SMIFs but only received 26 responses to their emails and thus found it very difficult to get statistically significant results. Joseph et al. (2023) list only 16 SMIFs in India although India has 3,000 business schools.

Given that there are now almost 500 SMIFs worldwide it is surprising that so few papers have tried to quantify their investment performance. Jennings and Jennings (2006) document extreme home bias, probably due to Merton’s (1987) investment recognition hypothesis among unsophisticated investors: in their sample of 30 US SMIFs only 2-4% of holdings are ex-US stocks. Half of the SMIFs have no ex-US holdings at all. Caldwell and Dolvin (2012) look at the impact of herding on SMIFs’ decisions and find a very significant impact: changing voting from a show of hands to paper voting reduced the percentage of unanimous votes from 53% to 29%. Votes that were not unanimous gave much better (albeit not statistically significantly better) 12-month returns, presumably because the stocks had been discussed more thoroughly. Educating students and promoting discussion reduced herding. Daugherty and Vang (2015) compared risk-adjusted rates of return of stock picks in the first two months versus the last two months of each student group’s tenure over 14 years of the SMIF at the University of St. Thomas. There was a statistically significant improvement in returns after the year’s learning, however both groups of stock picks still underperformed a benchmark index. Finally, among papers looking at investment performance, Haddad et al. (2020) show that the 25 SMIFs in the Tennessee Valley Authority program give a composite return of 6.7% compared to 6.5% on the Standard and Poor’s total return index. This emphases the point that universities handing over part of their endowment funds to SMIFs are not in fact taking a big risk, because SMIFs do not in general underperform professional fund managers and have the benefit that they charge no management fees.

**3. Methods**

*3.1 Case study*

The main part of this paper is a case study of the Fund. The lead author has been Chairman of the Fund since its inception in 2013, thus all details are from personal experience or from the Fund’s ‘Bible’ held on a Google Drive which formalises operational procedures.

*3.2 Returns calculations*

The details of the Fund’s returns since 2017 in Chart 1 are sourced from the funds current brokers. Details of the fund’s performance prior to 2017 are unfortunately not available. Due to the fund’s wide international diversification MSCI World index is used as a benchmark, sourced from Refinitiv Datastream. For the purposes of the chart this was translated from US dollars to pounds sterling. We also show returns after 30% US withholding tax on dividends (also sourced from Refinitiv Datastream). Due to the small fund size and the fact that the dividend yield is only 2-3% it is not cost-efficient for the University’s finance staff to reclaim this from the Internal Revenue Service (IRS).

*3.3 List of SMIFs in the UK, Ireland and the Netherlands*

Data was sourced from attendees at two student organised conferences (SMIFUIK22 and SMIFUK23) and via Internet searches on “SMIF” or “Student managed investment fund”. Many funds do not yet have web sites so we also searched on Facebook. Where there were unknown details we then attempted to contact all funds twice via email and/or Facebook message. Where cells are blank in Appendix 1 it is because they did not reply.

**4. The Fund**

*4.1 Establishment of the Fund*

A student-led virtual fund had already been running at the Fund’s institution for some time when in 2013 the student committee approached the lead author for help in contacting sponsors to turn it into a real money fund. We were successful in finding £10,000 sponsorship from a leading figure[[1]](#footnote-1) in the fund management industry. The Fund “went live” some months later after detailed discussions with the University Finance Director and legal advisors. Because the funds were donated to the University endowment fund but earmarked for a specific use, the Griff Fund has no separate legal identity to the University and the legal set-up was relatively painless, certainly compared to the bureaucratic procedures faced in India as detailed by Joseph at al. (2023). We also used the same brokers as used by the endowment fund.

*4.2 Organisation of the Fund*

The Fund has many of the characteristics of an investment club, but it shares some of the organisational and legal features of ‘standard’ US and Canadian course-based SMIFs in that it is overseen by university staff and the students manage university endowment funds. The Fund therefore does not run as most US and Canadian SMIFs do, within a course structure with credits. Despite the relatively short history of UK SMIFs compared to the US, new SMIFs are now springing up regularly with about 30 now in existence. To our knowledge, all UK and Irish SMIFs operate in a similar way; their funds originate from a single donor, they are held as part of the university endowment, students usually remain members for the entire length of their undergraduate course and they do not gain any course credits. We surveyed the funds we are aware of in the UK, the Republic of Ireland plus one fund in Maastricht and a summary of UK SMIFs and student investment clubs is included in Appendix 1.

The Fund’s Constitution has evolved over the years and is available on request to those setting up SMIFs. Since the donation is legally part of the university’s endowment fund, we initially used the institution's endowment brokers. We have since moved to Interactive Brokers, due to their low charges for small trades and their wide list of international stock markets in which to invest.

The Fund is run by a student committee which has gradually increased in size from three members on inception in 2013 to its present seven: Chief Executive Officer, Chief Investment Officer, Chief Operating Officer, Chief Finance Officer, Chief Risk Officer, Chief Training Officer and Chief Business Development Officer. Below the committee are the sector heads. These are analysts with at least one year’s experience who lead teams of about six analysts. The sector heads are responsible for organising pitches of stocks in their sector and developing the junior analysts in their sector group. Numbers of analysts have also increased gradually over the years from 30 in 2013 to the current 45-50.

Students from across the university apply to be members during university Freshers week. The Fund members staff a Freshers Fair stall and do shout-outs at first year induction meetings (where the department allows). The application process consists of two steps. Students first fill out a Google form where they attach their curriculum vitae (CV) and answer two questions about their motivations for applying to the Fund. The students who are invited for an interview are emailed a stock pitch template to use (a simplified template of the one used in actual Fund meetings). The interviewers are one Fund committee member and one sector head. In the first half of the interview the applicant presents their stock. They are then asked questions about their pitched stock and their motivation for applying. Competition for places is high with 8 to 10 applicants for each available role. 15-20 new analysts are recruited each year, which entails a great deal of work for the student committee and sector heads.

There is also an oversight committee made up of four staff members plus the student committee which meets once a term, but operational decisions are usually taken by the student committee. The Fund is chaired by the lead author who executes the trades with Interactive Brokers.

*4.3 Learning environment*

A calendar of events is included in Appendix 2.

In November a training weekend is delivered where academic staff and more senior analysts train new junior analysts who have just joined the fund. The Chief Training Officer also delivers ongoing training throughout the year, including sessions on quantitative risk analysis, regression analysis and statistical arbitrage. See Appendix 3 for an example of a training weekend which is held at the start of the academic year.

Analysts are organised into worldwide sector teams, with the more experienced sector heads and senior analysts guiding the junior analysts, and teams take turns to plan and deliver pitches. Fund analysts meet weekly during teaching weeks. Weekly meetings involve a mixture of stock pitches, training and talks by invited speakers including alumni. The Fund analysts now have a well-defined template for pitching stocks, informed by cohorts of students returning from summer or year-long placements with investment firms. One or two pitches are made at each meeting, with sector teams making one or two pitches per semester. The rest of the time is devoted to invited speakers or education sessions led by the student training officer. Students vote using a Google Form which ensures that every vote can be added to a long-term database of voting patterns. Votes are weighted towards more experienced SMIF members and the committee. If a pitch gets more than two-thirds support the trade is actioned by the Chair. Staff members have the power to advise[[2]](#footnote-2) but not instruct unless the stocks selected go outwith the university’s ethical guidelines. Arms manufacturers, tobacco, alcoholic drinks manufacturers and betting companies have been banned since inception, and these have recently been joined by oil and gas producers.

*4.4 Investment strategy and investment returns*

The Fund’s investment strategy is bottom-up and on the basis of some news item making the stock a ‘buy’, rather than any fixed value or growth orientation. The only requirement in the Constitution is that we are limited to stocks of at least £250m or equivalent market capitalisation, so that the smallest companies are not considered. There is no home bias à la Jennings and Jennings (2006) as most of our investments are in mainland Europe or the US.

An important part of the Fund’s activity has been charitable donations, reflecting the university’s own commitment to charitable giving. Our Constitution allows donations up to 20% of the annual growth in funds under management to charity. To date we have made two donations to a local food bank.

Investment returns have been steady rather than spectacular, with funds under management growing from £10,000 in 2013 to a high of £17,000 but falling back to £15,000 at the time of writing (April 2023). This is not seen as a particular problem since the main aims of the Fund are educational and charitable, in line with those of the university. Chart 1 shows the fund’s returns since we moved to our current broker in 2017. The fund has slightly underperformed the MSCI World benchmark, due to the pound weakening against the dollar since 2017 and our being more in cash in early 2021 so not benefiting much from the stock market recovery after COVID-19.



Chart 1: Fund returns 2017-23

**5. Evaluation**

*5.1 Introduction*

This section describes and evaluates the operation of the Fund across the following key areas: organisation of the Fund, learning environment and investment strategy and returns. A key feature of the Fund is the extra-curricular club structure, the Fund has operated from the start as a largely student-managed organisation. This means that the staff workload is significantly lower than US SMIFs that are run as a credited course over one or two semesters. The staff workload allowance is equivalent to one small module. More significantly this structure offers significant opportunities for co-creation and student-staff partnership, enhances institutional memory and knowledge and leads to excellent student outcomes. However, the structure of the SMIF and its selective nature presents challenges from the perspective of inclusive practice and the number of students who are able to benefit from the provision. These issues are discussed in more detail below.

*5.2 Opportunities - Co-Creation and student-staff partnerships*

Felten et al. (2014) define student partnerships as ‘*…a collaborative, reciprocal process through which all participants have the opportunity to contribute equally, although not necessarily in the same ways, to curricular or pedagogical conceptualization, decision-making, implementation, investigation, or analysis’* (pp. 6–7). Numerous benefits to students are identified in the literature including greater motivation and enhanced learning, greater awareness of how they and their peers learn and a stronger sense of identity and sense of belonging (Bovill, 2020).

The Fund is a partnership between staff and students, the Fund is led by the student committee to which staff provide facilitation support and guidance. There is some staff input into operational matters, though rarely into the choice of stocks. Students can be members of the Fund for more than one year and all activities, training and events are student led and staff supported. An analysis of the activities of the Fund and its development provides evidence that this approach has yielded significant benefits for the fund itself. For example, the pitches have become (in the lead author’s opinion) astonishingly professional given that they are delivered by undergraduates. This is a major benefit of running as a club structure rather than a module with 100% turnover of students each year. The Fund has built up an institutional memory and operations have gradually become more professional with each passing year.

Furthermore, the flexibility of the partnership has provided spaces which promote creativity and innovation. One example of this is the establishment of an annual student-run conference (SMIFUK22), in 2022 this was the first of its kind to be held outside of the US and has now run successfully for two years. For the benefit of future SMIF conference organisers appendix 4 summarises the agenda and our reflections of the 2023 event.

From a student perspective an approach based on co-creation and partnership appears to enhance engagement and motivation, attendance at weekly fund meetings is near 100% and all absences can be explained. The emphasis on co-creation offers students the opportunity to meaningfully engage and influence the development of a rich range of activities which enhance career-relevant skills and curriculum vitae. The career impact of being an analyst is considerable. As Bolster and Platt (2018) observe, their Huntington Fund at Northeastern University is an unqualified success in giving students an advantage in their jobs search, with students getting more and better jobs as a direct result of their involvement in a SMIF. All of the Griff Fund’s 2021-2 committee found jobs in investment banks, the university is in touch with over 150 Fund alumni, and we know that at least 41% of these are working in the sector. Finally, the extra-curricular club-based structure allows membership to extend across the whole university and therefore facilitates an interdisciplinary approach to the management of the fund further enhancing the development of career-relevant skills.

*5.3 Challenges - Diversity of fund members*

Viewed through the lens of inclusive practice the Fund faces challenges with respect to the Fund being run as non-credit bearing and the selective recruitment process for members. There is evidence that these have had an impact on the diversity of Fund members both in terms of gender and socio-economic background. Women are significantly under-represented in the Fund, although once appointed female analysts are often successful in terms of career progression within the fund. For example, the 2022-3 committee had three female members out of six, the 2023-4 committee has three out of seven, and since 2013 there have been three female CEOs. Female students are a majority at university, and they account for just under 45% of the students studying economics or management, the departments from which a majority of fund members are drawn. However, over the 2021-2 and 2022-3 recruitment rounds only 22% of applicants for roles were female. 74% of female applicants were interviewed compared to 85% of males, and 33% of female applicants were accepted compared to 41% of males. Only 25% of current analysts are female, though this is in line with the percentage applying, and also with Kubik (2018) who found an average 27% female students in the 104 US SMIFs he surveyed. Whilst we have less available data, the data that we have indicates that students from low participation backgrounds[[3]](#footnote-3) are also underrepresented in the fund. 12% of current members are students from low participation neighbourhoods, whereas representation across the university stands at 25%. These findings are consistent with broader literature relating to inclusive education which are discussed in the next paragraph.

*5.4 Challenges - Inclusive practice and extra-curricular activities*

Increasingly competitive employment markets means that extra-curricular activities that were once ‘optional’ are now mandatory. However, there is a large body of literature that shows that students are not equally positioned to engage in these activities (Bathmaker, 2021). Stevenson and Clegg (2011) show how male students have the greatest awareness of the need to build their CV and therefore might be more likely to become involved in extracurricular activities. In contrast, they suggest that women tend to undervalue their participation in extracurricular activities and are more likely to be dismissive of how these might contribute to their future employment. Studies also show how students from lower socio-economic backgrounds are less likely than their middle- or upper-class peers to get involved in extracurricular activities (Harvey et al., 2017; Lehmann, 2012; Stuart et al., 2009), undertake a placement year (Brooks and Youngson, 2016) and gain work experience through internships (Wright and Mulvey, 2021; Greenbank, 2014).

Reasons cited in the literature for these differences are a combination of financial and cultural factors. Financial factors tend to relate to the pressure that is placed on student’s time, which impacts their ability to focus on activities beyond their core studies (Bathmaker et al., 2016; Greenbank, 2014; Moreau and Leathwood, 2006). Cultural factors include, issues of recognising what is required to secure highly sought after graduate jobs (Coulson et al., 2017; Reay, 2006), difficulties navigating structures within HE to draw on available support (Wong, 2018) and that students from middle and upper-class families enter HE with a positional advantage with respect to established networks and connections (Bathmaker, 2021; O’Shea et al., 2021; Abrahams, 2017). These studies show how middle-class students leverage these networks and connections to secure internships and also how this social capital is converted into cultural capital in the sense of confidence and entitlement in relation to the graduate labour market.

*5.5 Inclusive practice and Fund recruitment*

The under-representation of women in the Fund reflects the broader challenges faced by the sector where the percentage of women working in the financial services industry is considerably lower compared to men (Adamma, 2017). There are a variety of reasons for this, and studies show how the systems and processes within HE and those adopted by employers favour male white middle-class students, for example, advertisements in male-dominated occupations and industries are more likely to contain masculine stereotyped words like ‘competitive’ and ‘dominant’ than advertisements for jobs in female-dominated occupations and industries (Gaucher et al., 2011). Class-bias is also reflected in the financial services industry (Friedman and Laurison, 2020). Ingram and Allen (2019) demonstrate the ways in which advertisements for graduate roles signal that specific forms of cultural and social capital are favoured. Furthermore, employer-focused studies in the UK (Brown et al., 2004) and the US (Rivera, 2011) suggest that recruitment processes screen for these specific forms of capital, for example accent or forms of social and cultural competence. Students from lower socio-economic groups therefore have lower levels of confidence and expectation around career (Tomlinson, 2017) and may therefore be deterred from applying for roles connected to careers with elite employers.

To address the gender imbalance the Fund has tried organising female mentors for applicants and all-female interview panels. However further work is needed to address this and other issues of diversity; the new opportunities identified in the area of partnership working and the possibility for paid internship work may support us in recruiting members from a diverse range of backgrounds. In the future we also plan to review the use of curriculum vitae in the recruitment process and consider more extensive and proactive mentoring opportunities during recruitment to encourage applications from students with a broader range of backgrounds.

**6. Conclusion and final reflections**

*6.1 Conclusion*

The paper provides an outline structure and practical guidance for educators who might be considering setting up a SMIF which in itself is a valuable contribution to the body of work in this area. In addition the paper has illuminated a number of benefits and challenges (to students and educators) to the pedagogical design and operational management of the fund not previously discussed in the literature. The career benefits of the experiential learning that SMIFs provide are well documented in the literature however the challenges of operationalising SMIFs are less well understood. In this paper these are examined in the context of a non-credit bearing fund in the UK although the findings are still relevant to funds which are embedded within programmes of study, in particular with respect to how students are recruited to modules and also with respect to the organisation and teaching of the modules themselves.

A key feature of the Fund (and what differentiates the fund from many US based SMIFs) is the extra-curricular club structure. The paper shows how the non-credit bearing nature of the fund enhanced the student experience by offering opportunities for co-creation and partnership and enhanced institutional memory. We would argue that these benefits are not exclusively available to non-credit bearing SMIFs. The nature of the extra-curricular club structure naturally lends itself to these opportunities and illuminates the possibilities, however there is no reason why such opportunities cannot be realised within credit bearing SMIFs, and extended more generally to consider the research potential of working with students as partner researchers to understand pedagogical issues and address gaps in the literature relating to the factors which impact fund performance.

In addition to the benefits to students of their participation in the fund highlighted in the paper and the broader literature, the paper identifies operational challenges relating to the structure of the fund and the process for recruiting new members. There is a risk that some groups of students are not able to benefit from the provision. Whilst this risk is exacerbated by the extra-curricular nature of the fund, it may also apply in the case of funds which are credit bearing but embedded within optional modules. These issues extend beyond the classroom to wider issues of recruitment into the profession where inequalities in recruitment persist (Adamma, 2017) however more attention to recruitment practices and the way SMIFs are promoted may mitigate these risks.

*6.2 Future research directions*

The introduction of this paper highlights the gap in the literature relating to the operation of SMIFs outside of the US and also the need for studies which move the focus from the structural challenges of establishing and running SMIFs to a focus on other factors which lead to successful performance of funds and successful student outcomes. Benefits to students of SMIFs are widely documented, these are rooted in experiential learning however there is a risk that these benefits may not be available to all students. The identification of these risks is the first step in taking action to mitigate these risks as the provision evolves and in the design of any new SMIFs. Beyond this, the paper also identifies opportunities for research which move beyond a focus on experiential learning and highlights the potential that SMIFs offers for student-staff research partnerships.

The SMIF Fund literature resembles the hedge fund industry in the 1980s; most SMIFs operate as a cottage industry with little contact with other SMIFs. There is little knowledge of best practice across the industry and there are no consolidated databases to enable research to find out what best practice would be exactly. Co-creation can take a number of forms, to date the Fund has been worked with students largely as pedagogical co-designers (Bovill et al., 2016), however there are significant opportunities to broaden this scope and work with students as partner researchers (Bovill et al., 2016) in the future.

There is therefore a need to establish a SMIF Fund Consortium or Confederation which would facilitate the development of a comprehensive database of SMIF practice. SMIF operations could certainly be made more efficient with the benefit of experience from running hundreds of SMIFs, and perhaps investment returns could be improved too. A small fee for subscriptions to a database of SMIF analyst votes could perhaps also secure ongoing funding for the SMIF Fund Consortium. Our student partners have already demonstrated strength in networking and bringing together SMIF Fund members and finance professionals from across the country in the organisation of the conference. There is the opportunity to build on this foundational work to develop the SMIF Fund Consortium and to work together with other students to build a database. The development of this more research focused-area of work has the potential to attract a different type of SMIF Fund member and there may be the possibility to fund a student intern to support SMIF Fund members in the development of the Consortium and Database.

If the small local decisions made by thousands of SMIF analysts were made available across multiple universities in a future SMIF Consortium, it would become easy to reach statistical significance. Two significant research potentials based on SMIF analysts themselves are currently not being exploited and a Consortium and associated Database would enable exploration based on a robust dataset. First, SMIF analyst voting patterns. If SMIFs were to record all their analysts’ votes, researchers could answer questions such as, “Are economics / finance majors better stock pickers than students studying other subjects? Do male or female analysts make better decisions?” Second, finding answers to well-known questions in behavioural finance such as herding behaviour among fund managers using SMIF analysts as test subjects. Caldwell and Dolvin (2012) research group dynamics and decision-making (specifically herding behaviour) in SMIFs. Unfortunately, professional fund managers and analysts are notoriously difficult to contact and persuade to spend their valuable time being experimented on by finance researchers. SMIF analysts would be as close a substitute as it is possible to get: they will show many of the same traits as the people they will join professionally in a year or two, and having chosen to become part of a SMIF they should be expected to have a positive attitude to financial research. This seems a valuable research resource that is at present almost unused. These areas could be explored by student partner-researchers and have the potential to underpin dissertation work in the area of finance.

**Appendix 1: SMIFs in the UK, Ireland and the Netherlands**

| **University** | **Fund name** | **Date of inception (if known)** | **Approximate value (if known)** | **Notes** |
| --- | --- | --- | --- | --- |
| Durham University | Durham University Student Investment Fund (DUSIF) | 2019 | £50,000  | https://www.dusif.co.uk/ |
| Imperial College London | The Imperial College Business School Student Investment Fund | 2018 | £100,000 | https://www.imperial.ac.uk/business-school/corporate-relations/corporate-partnerships/the-student-investment-fund/ |
| King’s College London | King’s Investment Fund | 2016 | £20,000 | https://www.kcl.ac.uk/business/postgraduate/student-experience/kings-investment-fund |
| Lancaster University | LU Ghosal Investment Fund | 2015 |   | https://www.linkedin.com/company/luifs-investment-fund/ |
| London Business School | The London Business School Investment Management Club (IMC) |   |   | https://clubs.london.edu/imc/home/ |
| London School of Economics | MBP Capital | 2016 |   | https://www.linkedin.com/company/mbp-capital/about/ |
| Maastricht University | Sigma Investments | 1976 |   | https://sigma-investments.com/ |
| Newcastle University | Newcastle University Investment Society |   | Virtual fund  | <https://www.facebook.com/newcastleinvestmentsoc/> |
| Queen Mary University of London | Queen Mary MSc Investment Fund (QUMMIF) |   | £40,000 | https://www.qmul.ac.uk/sef/postgraduate/msc/extracurricular-activities/qummif-student-investment-fund/ |
| Queen’s University Belfast | Queen’s Student Managed Fund (QSMF) | 2012 | £50,000 | https://www.qub.ac.uk/schools/QueensManagementSchool/StudentOpportunities/FinTrUTradingRoom/QSMF/ |
| Trinity College Dublin | Trinity SMF | 2010 | €400,000 | https://trinitysmf.com/ |
| University College Cork | UCC Student Managed Fund |  2013 | Virtual fund | https://www.facebook.com/UCCSMF1/ |
| University of Bristol | Bristol Investment Fund | 2015 |   | https://www.the-bif.co.uk/ |
| University of Cambridge | Clare College Student Investment Fund (CCSIF) | 2007 | £110,000 | <https://ucs.clare.cam.ac.uk/societies/c-c-s-i-f/>https://www.camsif.com/ |
| University of Edinburgh | Edinburgh University Trading and Investment Club (EUTIC) | 1998 | £58,000 | https://www.linkedin.com/company/edinburgh-university-trading-and-investment-club/ |
| University of Exeter | ExSIF |  2020 | £8,000 | https://www.exsif.co.uk/ |
| University of Leeds | Leeds University Union Trading and Investment Society |  |  Virtual fund | https://www.luutis.org/ |
| University of Lincoln | Lincoln International Business School’s Student Managed Investment Fund (LSMIF) | 2018 | £10,000  | https://www.lincoln.ac.uk/lbs/studentmanagedinvestmentfund/ |
| University of Manchester | MUTIS Ethical Investment Fund |   |   | https://meif.mutis.org/ |
| University of Nottingham | Nottingham Trading and Investment Society (UoNTIS) | 2023 |   | https://su.nottingham.ac.uk/activities/view/trading-investment |
| University of Oxford | Oxford Alpha Fund | 2017 |   | https://www.oxfordalphafund.com/ |
| University of Sheffield | Twikker Fund | 2013 | £200,000 | https://www.usis.co.uk/fund |
| University of St. Andrews | University of St. Andrews Investment Society | 2012 | $30,000 | https://www.sta-investsoc.com/the-fund |
| University of Stirling | Student Managed Investment Fund | 2017 |  Virtual fund | https://smif.stir.ac.uk/ |
| University of Warwick | Warwick Investment Fund | 2015 |   | https://www.facebook.com/warwickinvestmentfund/ |
| University of York | The Griff Investment Fund | 2013 | £15,000 | https://www.griffinvestmentfund.co.uk/ |
| Various | Blackelm Equity |   | £100,000 | <https://blackelm-equity.com/>An investment club with members from universities across the UK |
| Various | MCD Capital | 2021 | >£1,000,000  | <https://www.mcdcapital.net/>A student led investment fund based within London’s academic environment |

Note:Inception dates and fund values are taken from the SMIFs’ web sites or social media. Where no data were found there we attempted to contact the SMIF or students known to us there. Where the data are still blank we received no reply.

**Appendix 2: Annual calendar of business**

The annual round of business for the Fund has evolved over ten years into a fairly fixed pattern. New analysts must be recruited at the start of the academic year to replace the 1/3rd of analysts who graduated in the summer. They are immediately given their initial training. Meetings for stock pitches, outside speakers and training take place weekly during teaching weeks. The founder Paul Griffiths visits in March and the SMIFUK conference has also taken place in March for the last two years. The committee holds interviews (with staff oversight) to select their own replacements before the end of the Spring term. Meetings are held fortnightly in the summer term under the new committee. Finally there is an alumni drinks event in London over the summer, at which alumni are often invited to address Fund members during the next year.

**October:** Run the Freshers Fair stall and recruit analysts. All applicants are given individual interviews with two senior Fund members, in which they explain why they want to join the Fund and pitch a stock (notwithstanding their lack of knowledge at that stage). Since 15-20 new analysts are recruited each year this entails a great deal of work for the student committee and senior analysts.

**Weekly in teaching terms:** Fund meetings take place with a mixture of stock pitches, training and talks by invited speakers including alumni

**November:** training weekend for the new analysts with a mixture of lectures and workshops on pitching stocks

**February / March:** Annual Report to the founder Paul Griffiths and senior university staff

**March:** Decide on the successor committee members (more interviews)

**April:** New committee members take over. Set stop-loss orders (if wanted) for the portfolio to run until October

**September:** Alumni drinks in central London

**Appendix 3: The Fund training plan**

This is an example of the training weekend we run for all new analysts. Many will not have any prior experience of evaluating shares and about 1/3rd are not studying economics or business majors, so we assume no prior knowledge. After this initial training most practical support is provided by the more senior analysts within each sector group. It is supplemented by Fund-wide training sessions on particular subjects, of which we give examples below.

**Training Weekend :** Saturday 5th November 2022 in PZA/129

Compulsory for all new analysts to attend to ensure smooth transition into the Fund.

**Schedule**:

**Arrive for 10:00am**

**10:00am - 10:15am : Welcome and introductions**

 Introduction to the structure of the fund, including a quick overview of who exec all are and what we each do + overview of which sector covers what etc.. Talk about the weighted voting system, the strike system and a reminder of sector applications.

**10:15am - 10:30am : Introduction to financial markets**

 Introduction to the concept of financial markets, what different types of securities actually are (equities, forex, etfs, index funds, etc…). This should not realistically take longer than 5-10 minutes.

**10:30am - 11:30pm : Fundamental Analysis**

 Very brief overview of macroeconomics and the tools available to governments and central banks to impact the economy. What to make of interest rate rises, tax cuts, government spending etc…

 Introduction to financial ratios (profitability, leverage, liquidity) and some valuation techniques (overview of DCF - not the masterclass as that comes later) + basics of quantitative risk (Beta, Sharpe Ratio, etc…)

**11:30pm - 13:30pm : Valuing Shares & Risk and Returns (Keith)**

 A more in depth look into valuations than the high level overview above.

 More detail on statistically analysing risk, fits well into the quantitative risk stuff I will be talking about in a later training session.

**13:30pm - 14:30pm : Lunch break (Glasshouse)**

Get other exec to come along and chat to the analysts, expect this to overrun slightly.

**14:30pm - 15:00pm : Technical Analysis**

Introduction to technical analysis (candle sticks, support and resistance, trend lines, RSI, moving averages)

 Introduction to TradingView and how to use it for charting as this is easier than Refinitiv’s charts.

**15:00pm - 15:30pm : Market Microstructure**

Introduction to electronic markets, the types of orders, the limit order book, and the concept of walking the book.

 A short introduction to HFT but not in too much detail - just as a side note.

**15:30pm - 16:15pm : Pitching standards, technique and tips**

 Introduction to the pitch template, what we expect, what the fund usually responds to (not a sales pitch). Emphasise that the fund rewards innovation (i.e. quantitative modelling, an interesting thesis based on solid macroeconomic foundations, etc)

 Go through an example of a pitch

**16:15pm - 16:30pm : Refinitiv Workspace tutorial**

 A quick introduction to Refinitiv including how to get access to the right data, competitors, news feeds, charting and graphs, etc… Also show people how to access codebooks although this will only apply to those that can code.

**16:30pm - 16:45pm : An overview of the term’s training sessions and meet the sector heads**

 When they are, what they are about, the fact that for the first year analysts attendance is mandatory without a reasonable excuse (else a strike, same as meetings).

 Get the sector heads to each give a short description of their sector and coerce the analysts into joining them.

**END**

During the 2022-3 year the Chief Training Officer also delivered training sessions on

1. **Quantitative risk analysis:** How risk is thought about from a quantitative perspective (variance and covariance) and then looking into risk adjusted return metrics such as Sharpe, Sortino, and Treynor ratio. We also looked very briefly at the concept of Beta.
2. **Regression analysis:** A deeper look into what Beta actually measures and how regression models are calculated in different ways (OLS and iterative solvers such as gradient descent).
3. A talk on **statistical arbitrage** was presented at SMIFUK23.

**Appendix 4: Reflections on the organisation of the conference**

*Reflections*

SMIFUK23 took place in March 2023 in the historic surroundings of York Guildhall, which hosted King Richard III in 1483 shortly after it was built. The conference ran over two days with a more relaxed schedule than the one-day SMIFUK22 to allow more time for networking, and featured a river boat cruise in the middle evening. There was a student pitching competition and a poster competition, and also a new stream of academic papers with a £1,000 Best Paper prize.

The more relaxed scheduling allowed plenty of time for networking. Some SMIFs or individual analysts did not attend due to time pressure or the cost of a hotel, but on balance the committee decided that the two day format will continue. Unexpectedly, the most popular parts of the conference according to the feedback sheets were the alumni panels. We ran a buy-side and a sell-side panel of an hour each on separate days, both chaired by a senior careers advisor. Panels on two separate days were needed as many alumni could only justify one day off work. The conference attendees were pleased to get detailed ideas from recent graduates (maximum five years’ post-graduation experience) on how their careers could develop. On the other hand the academic papers presented turned out to be too specialised for the mostly undergraduate audience in the main hall. If the academic paper competition continues in 2024 we will run it as a separate stream.

*Practical points*

1. If using university lecture rooms, book them early. Most universities only have a few conference-sized rooms and they need to be empty for the entire period of the conference.

2. Talk to sponsors early. Negotiating sponsorship and getting the support of senior investment industry staff to speak takes many weeks and cannot be hurried.

3. Sort out the Trade Mark Licensing Agreements early. Sponsorship payments can if necessary be made after the conference but TMLAs must be signed before the merchandise can be ordered with logos on it. Legal agreements have to be signed at the highest levels of the corporation and university which takes a lot of time.

4. Allow plenty of time for networking among attendees. Conference organisers understandably want to feature as many speakers as possible, but unstructured time for attendees to build relationships is also very important and is the main reason why people want to meet face to face.

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1. Paul Griffiths, then Chief Investment Officer at Aberdeen Asset Management, latterly Global Head of Institutional Business at HSBC Asset Management. The Griff Fund was named after him. Mr Griffiths is an alumnus of the University of York and has had a successful career managing funds and leading investment teams covering Fixed Income, Equity and Multi Asset Investments. Since his initial donation he has continued to return to the university at least once a year for the Fund’s Annual Report Day, when the student committee and analysts relate their investment performance over the year, talk about operational issues and also pitch at least one stock. Mr Griffiths has often visited with colleagues and has helped source corporate funding for the Griff Fund’s operational costs. We are extremely grateful for his continued long-term support. [↑](#footnote-ref-1)
2. Apart from it being a good idea for the students to be fully responsible for their decisions, advice from more experienced investors may not be an unalloyed blessing. The lead author’s most memorable intervention was to dissuade the students from buying Tesla in early 2017 because the company had few assets, was making losses and was heavily dependent for its income on subsidies from several US State governments. The price in early 2022 was 20 times higher. [↑](#footnote-ref-2)
3. Low participation is measured by students who are from Tundra groups 1 and 2. TUNDRA (tracking underrepresentation by area) is an area-based measure that uses tracking of state-funded mainstream school pupils in England to calculate young participation in HE. It is an official statistic.(Office for Students, 2023) [↑](#footnote-ref-3)