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Do Female Fund Managers outperform their Male Counterparts? A Quantitative Analysis of UK Retail Funds

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Abstract

Why are there so few women in finance and even fewer managing funds? There is a major discrepancy between the number of female and male fund managers worldwide. The aim of this paper is to ascertain if gender is a contributing factor to fund managers' performance. This is examined through analysis of data from 2012-2022 attained from eight major IA sectors of funds (Asian, European, North American, UK All Companies and UK Income equity funds; Targeted Absolute Return, Sterling Corporate Bond and 40-85 Sector funds) which are available to UK retail investors. This paper aims to compare the performance of all funds in the data pool with funds that involve one or more female managers through a quantitative and qualitative analysis. There is no significant research on the performance of women fund managers for UK investors. The authors intend to fill this gap with this paper. We find that funds managed by women or mixed teams produce similar and sometimes better risk-adjusted returns than male-only managed funds but are few in numbers and find it difficult to raise significant amounts of assets.

JEL classification numbers: D61, G11, G14, J16, M14.
Keywords: Gender, Investment, Asset Management, Wealth, Diversity.

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1. Introduction

Why are there so few women in finance and even fewer managing funds? There is a major discrepancy between the number of female and male fund managers worldwide. A magnitude of contributors could elucidate the low percentage of women in the field such as career interruptions (Bertrand, Goldin, and Katz, 2010), hiring discrimination against females (Goldin and Rouse, 2000), customer discrimination by propensity to invest in male over female managers (Becker, 1971) and self-selection by females to go into other fields (Polachek, 1981). The Citywire Alpha Female 2020 Report suggests it will take until 2215 for females to be equally represented in the asset management industry if the current rate of virtually imperceptible progress continues (Citywire, 2020). The marginal increase of female fund managers in the Citywire database is inconsistent with increasing equality and development across other industries. Citywire reports 11% female fund managers in 2020, up just 0.3% from 10.8% in 2019 and 10.3% in 2016. Comparing this to the global statistic of 29% of females working in senior management roles worldwide, with 87% of global mid-market companies having at least one female in a senior management role in 2020 (Catalyst, 2020). Through this data pool, Citywire found that mixed-gendered fund management teams produce better risk-adjusted returns than single-gendered teams.

The aim of this paper is to ascertain if gender is a contributing factor for fund managers' performance, through the analysis of data from 2012-2022 attained from investment funds in eight major sectors which are available to UK investors. Through a deep dive into related literature the research question at hand "Do female fund managers outperform their male counterparts? A quantitative analysis." was formulated.

Null Hypothesis: Funds with female participation (sole manager or a at least one female manager in the team) underperform funds solely managed by men.

The remainder of the paper is structured as follows: the literature review of related academic articles recognizing the broader framework and supporting the research question to allow wider linkages that exist beyond the scope of the research is outlined in Chapter 2. Chapter 3 describes the data set and Chapter 4 outlines the methodology used to examine the research question. The findings are discussed in Chapter 5 followed by final remarks in Chapter 6. Detailed results are presented in tables in the appendix.

2. Literature Review

The literature review is structured into four parts. First, an inquiry into gender bias when customers are investing in investment funds, deciphering whether there is rational statistical discrimination or irrational gender prejudice. Next, an exploration into the return and risk-taking behaviours of male, female and mixed-gendered hedge fund managers. Following is a probe into the desired societal perceptions of managers and last is a study into the neuroimaging concept of brain

androgyny. Through this literature, we developed the research question and gained an understanding of previous academics' investigations and research.

Table 1: Rational statistical discrimination or irrational prejudice due to gender bias

Niessen-Ruenzi and Ruenzi (2017)	The authors document significantly lower inflows in female-managed funds over male-managed funds through an empirical investigation using data from all single-managed US equity mutual funds from 1992 – 2009. It was found that the growth rate of female-managed funds was over one-third lower than their male counterparts. These findings lead them to question if investors shy away from female fund managers due to rational statistical discrimination or irrational prejudice due to gender bias.
Phelps (1972)	Phelps divulges that a priori belief in the plausible preferability of a certain group (in our case males) over another (females) who are not known to differ in any other respects might stem from the previous statistical experience with the two groups. The other possibility is that this preconceived idea could stem from prevailing sociological beliefs of the disadvantaged group (female) due to prejudices toward them in society. In the latter case, the discrimination is self-perpetuating. Phelps highlights that discrimination is no less damaging to its victims for being statistical but instead offers insight.
Becker (1971)	Conversely, Becker makes a central observation that discrimination not only has consequences for the one being discriminated against but also for the one engaging in it, bringing into question; who is benefiting from discrimination? The concept of statistical discrimination bears the idea that if there is a reason to discriminate against female fund managers, such as displaying underperformance or other undesirable investment behaviour, it would lead to investors endowing less capital into their funds. Irrational prejudice however seems to be prevailing where Niessen-Ruenzi and Ruenzi found no evidence of lower performance in female fund managers and instead found females to have near identical performance and a more assiduous investment style.

Table 2: Return and risk-taking behaviour

Aggarwal and Boyson (2015)	The researchers use data from 1994-2013 to explore hedge funds' return and risk-taking behaviour with mixed-gendered, all-female or all-male portfolio managers. They found in single-style funds that female-only fund managers perform no different to male-only fund managers with mixed-gendered funds underperforming, suggesting that there are no intrinsic differences in skill sets in male and female fund managers. In funds of funds, all groups had similar performances. They also investigated failure rates across funds, finding that funds with mixed-gendered portfolio managers fail at higher rates, driven by an inability to raise sufficient capital. Interestingly, surviving funds with mixed-gendered fund managers perform better than male-only managed funds, proving that female managers need to perform better to survive.
Gompers et al. (2014)	The authors explore venture capitalism where they found over 75% of venture capital firms have no women working as managers/analysts resulting in no females sitting on the boards of those portfolio companies. They attribute their finding of a slight underperformance in female venture capitalists to a lack of mentoring for female venture capitalists and gender bias on the part of entrepreneurs.
Atkinson, Baird and Frye (2003)	Their study of professional fund managers shows that male and female fund managers do not significantly differ in terms of performance and risk. They suggest that differences in investment behaviour often accredited to gender could be attributed to financial knowledge and wealth constraints. However, despite their performance-based findings, they also found that the gender of the manager influences the decision-making of the investor. Net asset flows into female-managed funds were significantly lower than males, constant with gender-based stereotypes.

Table 3: Societal perceptions of the qualities of a great leader

Schein (1973)	Schein uses a database of 300 24-64-year-old males to rate female and male managers as well as successful middle managers using 92 descriptive terms. The perceived belief was found to be that the ideal manager would possess stereotypic masculine qualities such as self-confidence, independence, assertiveness, dominance and rationality.
Powell & Butterfield, 1979; Schein, 2007; Schein, Mueller, Lituchy, & Liu, 1996	These authors suggest that across different industries and countries, the ideal manager was described in masculine terms by both genders
Eagly and Karau, 2002	Additionally, female characteristics are considered antithetical to success in management bearing the argument that these societal perceptions of the qualities a leader should possess inherently disadvantage women in management, forcing them to cope with the perceived incongruity between their leadership role and their gender role
Kark, Waismel-Manor and Shamir (2012)	The authors explore the individuals' perception of the effectiveness of leaders based on having feminine, masculine or androgynous characteristics and how this relates to the leader and followers' gender. 930 employees of 76 bank managers were studied to establish the relationship between managers' gender-roll identity and how this relates to leadership effectiveness in terms of transformational leadership and personal identification with the leader, based on level of perceived femininity, masculinity or androgyny. They found managers to be most effective when possessing the aptitude to combine agentic and communal behaviours in a flexible way. However, female managers are perceived to be most effective when occupying androgynous characteristics alongside feminine characteristics when managing single and mixed-gendered employees, while male managers only see the benefits of being androgynous when managing mixed-gendered or female-only employees. This is amplified by the finding that male employees are more likely to identify with non-androgynous male managers.

Table 4: Neuroimaging concept of brain androgyny

Sahakian et al., 2021	Conversely, the authors studied 4,495 male and 5,125 female participants to find that 25% of brains were identified as male, 25% as female and 50% were distributed across the androgynous section of the continuum. This indicates that the brain does not conform to one biological gender role, and rather places individuals on a spectrum from male to female: confirming a neuroimaging concept of brain androgyny. Sahakian et al, go on to explore the theory that androgynous people are more adaptable, accepting and flexible which leads to better mental health. This is highlighted by a meta-analysis of around 20,000 people, revealing that men who conform to typical masculine norms, such as never relying on others and exercising power over women, suffered more psychiatric symptoms, including depression, loneliness and substance abuse. They also felt more isolated, lacking social connections to others.

The research question arose from the above literature along with a personal interest in females in finance. In today's modern world the discrepancy between male and female involvement in finance, and more specifically in fund managers, is deplorable. As a society aiming for inclusion, equality and equal opportunity, there should be an investigation into why only a small number of funds are managed by women. There is no significant research on the performance of women fund managers for UK investors. The authors intend to fill this gap with this paper.

2. Data

In our empirical investigation, we analyse the secondary data (monthly performance, assets under management, fees, inception data, names of fund managers etc.) of fund managers in eight major IA sectors (Asian, European, North American, UK All Companies and UK Income Equity; Targeted Absolute Return, Sterling Corporate Bonds and 40-85 Sector funds). The data represents a large proportion of available and investable funds for UK investors for a ten-year period (May 2012-April 2022). The Investment Association (IA) groups UK funds into broad groups (sectors), each with a different investment focus. There are around 4,500 funds available to UK individual and institutional investors classified into the 50 *IA sectors* (The Investment Association). The data is sourced from the Financial Express Analytics database.

In our analysis, we differentiate between funds managed by men only, by women only, by mixed teams (one or more women in a team) and unclassified (quant funds or other funds where no specific person is assigned and no gender is identifiable), often passively managed quant funds.

3. Research Method

The research design is based on the authors' experience as academic and professional researchers. The qualitative and quantitative data are used in the quantitative analysis regarding gender (number of male and female respectively unclassified management teams, assets under management (AUM), track records, ongoing-charges figure (fees, OCF), FE risk scores), in the descriptive statistics and in the risk analysis.

In the descriptive analytics, we calculate the mean, i.e. the arithmetic average of returns, annualized standard deviation which displays the variation from the mean and is a useful tool to determine the volatility of returns, the skew which measures a dataset's symmetry or lack thereof (with a perfectly symmetrical data set holding a skewness of 0, positive skewness meaning the tail on the right side of the distribution is longer or fatter while negative skewness is the opposite) and the kurtosis, used to describe the tails of the distributions, measuring the outliers present in the distribution: high kurtosis indicates that the data has heavy tails or outliers, while low kurtosis indicates that the data has light tails of lack of outliers. Maximum and minimum returns are useful indicators when comparing volatility and performance outliers within the data. We also test for normality using the Jarque-Bera test whose null hypothesis is a joint hypothesis of the skewness being zero and the excess kurtosis being zero. These descriptive statistics are all based on 10-year data.

The risk statistics section includes calculations of the average, minimum and maximum values of the 5-year alpha, beta, bull beta to the market, bear beta to the market; Sharpe, Sortino and Information ratios; volatility of each sector. As the funds have different inception dates, only funds with a common track record of at least five years are used for the quantitative part of the study.

4. Findings

We discuss the findings whose data is in the Appendix. The first section covers the number of funds, AUM, track record, OCF and FE Risk Scores.

Table 1.1 shows the *total of 1269 funds across the 8 sectors*, divided into classified (885) and unclassified funds (384), funds with at least one female manager in a team (14-25%), co-lead (5-13%) and sole female (0-9%). In total, there are 35 female lead managers, 76 female co-leads and the remainder female participation, in total 150 women (17%) are involved in fund management, versus 724 (83%) run by men. Women are more likely to manage funds in specialist sectors (IA Asia Pacific ex Japan: 8 women as leads (9%) and 5 as co-leads (5%); IA UK All Companies: 11 women as leads (6%) and 17 as co-leads (9%)). By contrast in the major IA North America equity sector no women as leads (0%) but 17 as co-leads (13%) and 5 more in teams. In general, female participation (i.e. team roles other than lead or co-lead positions) tends to be low (across the sectors between 0-5%), underlining the minor role women play in teams.

Assets under management (AUM) are shown in Table 1.2: total assets are shy of £1 trillion (£ 968b) of which 62% are classified and 38% are unclassified. In terms of AUM, men manage 86% of all assets in the eight sectors, versus 14% managed by women, which is larger than the gender split (number of men (83%) vs women (17%)). The larger sectors IA Europe and IA North America are just over 50% classified (indicating the large passive industry) versus 93% in IA UK Equity Income and 84% in IA Targeted Absolute Return. Women participation is highest in smaller, specialist sectors (IA Asia Pacific ex Japan, 21% of AUM, while 25% in terms of numbers; IA Targeted Absolute Return, 20% of AUM and numbers). The data also shows the overall lower AUM (max and average) of funds with female participation.

The Track Records of Male and Female Fund Managers in Table 1.3 show shorter track records for mixed team funds, though both sole and mixed managed funds tend to have long track records, sufficient for our analysis.

The fee Table 1.4 (OCF = Ongoing charges figure, which includes the AMC (annual management cost), registration fee, custody safekeeping and transaction fees, audit fees and regulatory fees) gives a breakdown not unfavourable for female managers. This is surprising as smaller funds tend to be more expensive as the cost has to be shouldered by smaller AUM.

Table 1.5 covers the lower risk women tend to take as demonstrated in the lower FE scores (a variation of annual volatility, as a relative measure to the FTSE 100, whereby funds with FE scores below 100 tend to be less volatile than the index). This is most evident in the lower max risk scores of female managers: IA 40-85 Sector (men: 98 vs women 71); IA Europe (147 vs 134); IA North America (260 vs 219); Sterling Corporate Bond (73 vs 69); IA Targeted Absolute Return (176 vs 130); IA UK All Companies (152 vs 127) and IA UK Equity Income (141 vs 112). Only in IA Asia Pacific ex Japan women max risk scores are higher (men 119 vs women 124). Average and min FE Scores of women are slightly higher than these

of men, which might be explained by the smaller number of women as well as the better risk management skills of female managers.
The second section covers descriptive statistics and the risk and return analysis of the eight sectors (Tables 2.1.1 – 2.8.3 in the Appendix).
In the IA 40-85 Sector women tend to produce lower absolute (10-year mean returns of men: 7.4% vs 6.94%) but better risk-adjusted returns (10-year standard deviation returns of men: 8.98% vs 8.44%). The slightly better risk management of female managers and teams is also evident in the 5-year Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values. Sharpe ratio of men: 0.37 vs 0.38 and Sortino ratio of men: 0.33 vs 0.34. The high Jarque-Bera statistic / low p-value signal that the data is not normally distributed.
In IA Asia Pacific ex Japan we observe again lower mean returns of women but also lower standard deviation (10-year data). 5-year Sharpe ratio of men: 0.40 vs 0.42 and Sortino ratio of men: 0.40 vs 0.43. The higher Jarque-Bera statistic / low p-value signal that the data is not normally distributed.
IA Europe shows mean returns of men 11.42% vs women 10.47% (10-year) but better risk-adjusted returns (standard deviation returns of men 8.98% vs women 8.44%). The Risk Statistics for 5 Year Period are slightly better for men: Sharpe ratio of men: 0.34 vs 0.30 and Sortino ratio of men: 0.34 vs 0.31. The higher Jarque-Bera statistic / low p-value signal that the data is not normally distributed.
In IA North America the mean returns of men are lower at 15.51% vs women at 15.60% (10-year) and higher standard deviations for men at 11.79% vs women at 11.60%. The Risk Statistics for 5 Year Period are slightly better for men: Sharpe ratio of men: 0.78 vs 0.74 and Sortino ratio of men: 0.75 vs 0.72. The higher Jarque-Bera statistic / low p-value signal that the data is not normally distributed.
The Sterling Corporate Bond sector shows lower mean returns of men at 4.07% vs women at 4.89% (10-year) and lower standard deviations for men at 5.90% vs women at 6.93%. This results in similar Risk Statistics for the 5 Year Period for men: Sharpe ratio of men: 0.07 vs 0.08 and Sortino ratio of men: 0.04 vs 0.04. The very low Jarque-Bera statistic / high p-value mean that the normal distribution of data cannot be rejected.
IA Targeted Absolute Return funds depict better mean returns for men (higher) at 3.78% vs women at 3.430% and better (lower) standard deviations for men at 3.33% vs women at 3.93% (10-year). While in the 5-Year Risk Statistics, the Sharpe ratios are similar for men at 0.27 vs women at 0.28, the Sortino ratios are better for men at 0.19 vs women at 0.05. The very low Jarque-Bera statistic / high p-value indicate that normal distribution cannot be rejected.
In the IA UK All Companies sector, the mean returns for men are significantly higher at 8.93% vs women at 7.65% and standard deviations only slightly worse (higher) for men at 13.39% vs women at 12.90% (10-year). For the 5-Year Risk Statistics, the Sharpe ratios are also better for men at 0.20 vs women at 0.14, the Sortino ratios are better for men at 0.18 vs women at 0.13. The very low Jarque-Bera statistic / high p-value indicate that normal distribution cannot be rejected.
IA UK Equity Income funds show again better mean returns for men (higher) at

8.27% vs women at 8.06% but worse (higher) standard deviations for men at 12.72% vs women at 12.19% (10-year). For the 5-Year Risk Statistics, the Sharpe ratios are slightly better for men at 0.16 vs women at 0.14 as well as the Sortino ratios for men at 0.14 vs women at 0.12. The very low Jarque-Bera statistic / high p-value indicate here too that normal distribution cannot be rejected.

5. Final Remarks

This culminating chapter returns to the initially presented aims, research questions and objectives, and provides an overall response to them as derived from the previous chapters. The chapter offers concluding remarks not only in response to the research question but also highlights any gained insights.

We observed that in most cases the Sharpe and Sortino ratios are below one, indicating inferior risk-adjusted returns, as well as in several sectors lower Sortino ratios than the Sharpe ratios, pointing towards higher downside than mean volatilities. Like Sharpe ratios, higher Sortino ratios are preferred as they are more consistent with risk. Second, in all strategies, the risk statistics are better for unclassified (i.e., passive) strategies than funds by actively managed men or women. We also saw that the normal distribution of returns cannot be rejected for half of the strategies.

These results show that over the 5- and 10-year periods, funds with at least one female manager produce slightly better risk-adjusted returns in half of the strategies and similar to only slightly lower statistics in the remainder. These findings generally align with the literature review in the way that there is not any major discrepancy between male and female fund manager performance in terms of return and volatility. The immense inequality of female fund managers and females in finance seems more likely due to the propensity of investors to invest in male-dominated funds due to an irrational prejudice due to gender bias, therefore making it harder for women to attain capital. This gender bias stems from early education where there are fewer women encouraged to enter the field and are faced with discrimination throughout their educational and occupational development. The literature also highlights a gender bias when it comes to determining positive characteristics of managers to be masculine, which is not reflective of our data, nor compelling evidence to suggest masculine traits are superior to feminine traits in any field. To see a more equal representation of genders in finance and more importantly in managerial roles, there needs to be equal opportunity in all aspects of early development, education and the workplace.

A limitation of this data set lies within the sample size, which is limited to funds available to UK investors in eight sectors. Another conceivable limitation is a potential bias that arises from ascertaining the gender of fund managers which was done through determining first names and online research. Thus, to fully understand the performance of male-only fund managers versus funds with at least one female manager, more data needs to be collected and analysed. Future research will focus on other IA sectors, offshore funds and other geographies (European fund markets, the USA and Asia).

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Appendix

1. Quantitative Data – Number of Funds, AUM, Track Record, OCF & Risk Scores

Table Appendix 1.1: Number of Male and Female Fund Managers

	IA 40-85 Sector		IA Asia Pacific ex Japan		IA Europe		IA North America		Sterling Corporate Bond		IA Targeted Absolute Return		IA UK All Companies		IA UK Equity Income		All Strategies	
Total men and women in sample	207		123		152		239		104		106		251		87		1269	
Unclassified	78	38%	31	25%	56	37%	104	44%	19	18%	20	19%	66	26%	10	11%	384	30%
Total men and women in sample excl Unclassified	129	100%	92	100%	96	100%	135	100%	85	100%	86	100%	185	100%	77	100%	885	70%
Total men	107	83%	69	75%	82	85%	106	79%	71	84%	69	80%	154	83%	66	86%	724	82%
Total women	22	17%	19	25%	14	15%	22	21%	14	16%	17	20%	31	17%	11	14%	150	17%
Women - Sole	5	4%	8	9%	1	1%	0	0%	5	6%	1	1%	11	6%	4	5%	35	4%
Co Lead	10	8%	5	5%	9	9%	17	13%	7	8%	7	8%	17	9%	4	5%	76	9%
One in team of 3	6	5%	4	4%	4	4%	0	0%	2	2%	3	3%	3	2%	3	4%	25	3%
One in team of 4	1	1%	2	2%	0	0%	3	2%	0	0%	5	6%	0	0%	0	0%	11	1%
One in team of 5	0	0%	0	0%	0	0%	2	1%	0	0%	1	1%	0	0%	0	0%	3	0%
One in team of 6	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%

Table Appendix 1.2: AUM of Male and Female Fund Managers

AUM (in m $)	IA 40-85 Sector		IA Asia Pacific ex Japan		IA Europe		IA North America		Sterling Corporate Bond		IA Targeted Absolute Return		IA UK All Companies		IA UK Equity Income		All Strategies	
AUM All total	89,092		69,474		97,848		341,610		67,210		62,110		195,093		46,413		968,849	
AUM All average	441		560		644		1,429		659		586		784		533			
min	-		1		1		1		14		2		2		0			
max	13,729		5,386		5,719		44,711		5,482		5,301		13,900		4,647			
AUM Unclassified	34,483	39%	17,580	25%	47,646	49%	163,754	48%	15,216	23%	10,216	16%	75,938	39%	3,424	7%		
AUM - Classified (in m $)	54,609	61%	51,894	75%	50,202	51%	177,856	52%	51,994	77%	51,894	84%	119,155	61%	42,989	93%	600,592	62%
AUM men total (Classified)	46,940	86%	40,908	79%	47,530	95%	151,235	85%	42,414	82%	41,747	80%	107,809	90%	37,009	86%	515,590	86%
AUM men average	451		593		580		1,427		615		605		709		561			
min	1		1		2		2		18		8		2		2			
max	7,139		5,386		4,699		44,711		5,482		5,301		11,557		4,647			
AUM women participation total	7,670	14%	10,706	21%	2,672	5%	26,621	15%	9,580	18%	10,147	20%	11,346	10%	5,981	14%	84,722	14%
AUM women participation average	349		465		191		918		684		597		366		544			
min	4		4		2		3		19		2		24		94			
max	2,022		2,268		483		4,120		2,477		5,196		1,429		2,056			
AUM unclassified total	34,483	39%	17,580	25%	47,646	49%	163,754	48%	15,216	23%	10,216	16%	75,938	39%	3,424	7%	368,256	38%
AUM unclassified average	454		567		851		1,575		801		511		1,151		342			
min	-		2		1		1		14		3		5		0			
max	13,729		2,999		5,719		27,437		3,773		2,953		13,900		1,247			

Table Appendix 1.3: Track Records of Male and Female Fund Managers

Track Record	IA 40-85 Sector	IA Asia Pacific ex Japan	IA Europe	IA North America	Sterling Corporate Bond	IA Targeted Absolute Return	IA UK All Companies	IA UK Equity Income
Fund Manager Since (all - longest track record)	13/10/1988	01/08/1996	19/02/2001	30/06/1994	09/09/1998	01/07/2000	01/03/1988	01/01/2000
Fund Manager Since (men - longest track record)	17/11/1994	01/11/2001	19/02/2001	30/05/1997	09/09/1998	01/07/2000	15/05/1988	01/01/2000
Fund Manager Since (mixed teams with women - longest track record)	23/12/1998	01/08/1996	15/11/2006	14/07/1999	01/11/2004	01/07/2005	01/03/1988	18/10/2002
Fund Manager Since (women sole - longest track record)	01/03/2010	01/06/2009	01/04/2020	NA	01/09/2008	18/10/2016	01/01/1999	01/06/2009

Table Appendix 1.4: OCF of Male and Female Fund Managers

OCF	IA 40-85 Sector	IA Asia Pacific ex Japan	IA Europe	IA North America	Sterling Corporate Bond	IA Targeted Absolute Return	IA UK All Companies	IA UK Equity Income
OCF average - all (in %)	1.00	0.90	0.69	0.62	0.45	0.90	0.73	0.84
OCF - all - min (in %)	-	0.11	0.05	0.01	0.02	-	0.05	0.03
OCF - all - max (in %)	2.42	3.75	1.44	2.08	1.03	2.17	1.70	2.42
OCF - average - men only (in %)	1.07	1.09	0.89	0.83	0.50	0.89	0.82	0.86
OCF - men - min (in %)	0.22	0.12	0.06	0.01	0.02	0.35	0.06	0.03
OCF - men - max (in %)	2.42	3.75	1.44	1.98	1.03	1.68	1.70	2.42
OCF - women only (in %)	1.14	0.92	0.84	0.80	0.39	0.98	0.86	0.89
OCF - women - min (in %)	0.20	0.40	0.35	0.14	0.04	0.62	0.30	0.47
OCF - women - max (in %)	1.84	1.39	1.29	2.08	0.65	1.75	1.32	1.23
OCF - not classified (in %)	0.87	0.46	0.31	0.36	0.31	0.90	0.46	0.60
OCF - min (in %)	-	0.11	0.05	0.05	0.10	-	0.05	0.14
OCF - max(in %)	1.78	1.09	1.15	1.65	1.00	2.17	1.59	1.23

Table Appendix 1.5: FE Risk Scores of Male and Female Fund Managers

FE Risk Scores	IA 40-85 Sector	IA Asia Pacific ex Japan	IA Europe	IA North America	Sterling Corporate Bond	IA Targeted Absolute Return	IA UK All Companies	IA UK Equity Income
FE Risk Scores - All - average	62	93	114	106	33	39	102	98
FE Risk Scores - All - min	43	66	89	76	10	6	75	71
FE Risk Scores - All - max	98	124	147	260	73	176	152	141
FE Risk Scores - men - average	64	94	109	107	33	38	103	98
FE Risk Scores - men - min	44	66	92	76	10	6	75	71
FE Risk Scores - men - max	98	119	147	260	73	176	152	141
FE Risk Scores - women - average	59	95	110	110	38	44	103	94
FE Risk Scores - women - min	49	66	89	82	14	13	82	82
FE Risk Scores - women - max	71	124	134	219	69	130	127	112
FE Risk Scores - unclassified - average	62	90	122	105	31	36	100	105
FE Risk Scores - unclassified -	43	83	98	78	14	7	85	93
FE Risk Scores - unclassified -	87	106	140	210	45	91	144	123

2. Quantitative Data – Performance & Risk; Descriptive Statistics

All performance data from May 2012 to April 2022 (10 years) respectively May 2017 to April 2022 (5 years).

Table Appendix 2.1.1: Discrete Annual Performance of IA 40-85 Sector

Annual Performance & Number of Funds in Year

All funds	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	15.25	5.34	11.20	- 2.54	17.52	5.12	3.91	- 4.27	21.74	0.06
Number of funds	101	108	118	123	139	149	162	168	181	199
Men only	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	15.65	5.69	11.17	- 2.41	17.20	5.35	3.50	- 4.55	22.55	- 0.12
Number of funds	62	66	72	74	83	85	89	92	100	103
Women participation	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	14.70	4.24	10.57	- 2.18	17.36	4.53	3.89	- 3.43	20.54	- 0.83
Number of funds	*11*	*11*	*13*	*13*	*13*	*18*	*18*	*20*	*20*	*21*
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	14.58	4.98	11.49	- 2.92	18.19	4.93	4.59	- 4.12	20.80	0.57
Number of funds	28	31	33	36	43	46	55	56	61	75

Table Appendix 2.1.2: Descriptive Statistics for the 10-year Period of IA 40-85 Sector

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	7.33	8.78	0.33	- 1.09	8.19	1.66%
Men only	7.40	8.98	0.36	- 0.99	7.48	2.37%
Women participation	6.94	8.44	0.41	- 1.23	10.90	0.43%
Unclassified	7.31	8.63	0.28	- 1.17	8.39	1.50%

Table Appendix 2.1.3: Risk Statistics for the 5-year Period of IA 40-85 Sector

Risk Statistics for 5 Year Period
Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	-9.47	0.67	0.53	0.48	-0.01	-0.27	-1.17	6.79
mean	0.02	1.00	1.00	1.00	0.39	0.35	-0.01	10.32
max	6.19	1.62	1.73	1.86	0.86	0.79	1.25	18.67
Men only								
min	-9.47	0.72	0.58	0.59	-0.01	-0.27	-1.16	7.86
mean	-0.11	1.02	1.02	1.04	0.37	0.33	-0.03	10.64
max	6.19	1.62	1.73	1.86	0.86	0.79	1.25	18.67
Women participation								
min	-1.69	0.78	0.76	0.54	0.19	0.15	-0.62	8.24
mean	-0.07	0.96	0.96	0.95	0.38	0.34	-0.14	9.71
max	2.30	1.12	1.15	1.23	0.64	0.62	0.41	11.17
Unclassified								
min	-3.30	0.67	0.53	0.48	0.05	0.04	-1.17	6.79
mean	0.30	0.98	0.98	0.95	0.42	0.39	0.07	9.96
max	2.98	1.27	1.22	1.32	0.67	0.67	0.98	12.56

Table Appendix 2.2.1: Discrete Annual Performance of IA Asia Pacific

Annual Performance & Number of Funds in Year

All funds	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	18.43	-6.80	22.60	-9.90	35.38	12.36	2.71	-5.45	38.35	-7.87
Number of funds	83	86	99	102	108	109	111	115	117	123
Men only	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	17.23	-6.28	24.62	-10.02	36.32	12.90	2.60	-4.70	38.27	-9.16
Number of funds	48	50	55	58	62	62	64	65	66	69
Women participation	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	19.75	-8.03	23.62	-9.14	33.79	13.52	2.42	-5.03	38.95	-8.55
Number of funds	*17*	*18*	*20*	*20*	*21*	*21*	*21*	*22*	*23*	*23*
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	20.39	-7.03	17.14	-10.22	34.39	10.12	3.19	-7.52	38.05	-4.48
Number of funds	18	18	24	24	25	26	26	28	28	31

Table Appendix 2.2.2: Descriptive Statistics for the 10-year Period of IA Asia Pacific

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	9.98	18.17	0.45	-1.36	13.28	0.13%
Men only	10.18	18.47	0.44	-1.40	13.57	0.11%
Women participation	10.13	18.31	0.38	-1.48	13.93	0.09%
Unclassified	9.40	17.63	0.54	-1.13	12.09	0.24%

Table Appendix 2.2.3: Risk Statistics for the 5-year Period of IA Asia Pacific

Risk Statistics for 5 Year Period

Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	-5.35	0.79	0.68	0.69	-	-0.01	-1.16	11.05
mean	-0.01	1.00	1.01	1.02	0.40	0.39	-0.04	14.02
max	8.64	1.26	1.38	1.48	0.97	1.13	1.25	18.63
Men only								
min	-5.35	0.79	0.71	0.69	-	-0.01	-1.16	11.05
mean	-0.01	1.00	1.01	1.00	0.40	0.40	-0.04	13.95
max	8.64	1.26	1.38	1.42	0.97	1.13	1.25	16.91
Women participation								
min	-3.08	0.88	0.71	0.76	0.20	0.20	-0.54	12.34
mean	0.20	1.00	1.04	0.96	0.42	0.43	-0.01	13.89
max	6.06	1.15	1.27	1.31	0.86	1.01	0.78	16.70
Unclassified								
min	-2.26	0.94	0.68	0.82	0.24	0.24	-0.51	12.53
mean	-0.19	1.01	0.98	1.11	0.38	0.36	-0.06	14.29
max	3.13	1.09	1.21	1.48	0.65	0.68	0.69	18.63

Table Appendix 2.3.1: Discrete Annual Performance of IA Europe

Annual Performance & Number of Funds in Year

All funds	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	26.18	16.46	6.82	-0.66	27.48	8.65	0.19	-8.34	35.88	-2.52
Number of funds	95	102	108	113	119	123	129	137	139	145
Men only	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	26.51	16.60	7.61	0.20	26.62	8.52	0.31	-6.55	36.39	-2.01
Number of funds	61	63	65	65	69	71	74	76	77	79
Women participation	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	24.79	13.28	5.71	-0.32	27.45	8.25	0.63	-6.41	34.58	-3.26
Number of funds	*10*	*10*	*10*	*11*	*12*	*12*	*12*	*12*	*13*	*13*
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	25.92	17.28	5.58	-2.27	29.03	9.00	-0.16	-11.57	35.41	-3.10
Number of funds	24	29	33	37	38	40	43	49	49	53

Table Appendix 2.3.2: Descriptive Statistics for the 10-year Period of IA Europe

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	11.01	14.84	0.46	-1.12	10.51	0.52%
Men only	11.42	14.47	0.53	-1.04	11.03	0.40%
Women participation	10.47	14.13	0.60	-1.04	12.51	0.19%
Unclassified	10.51	15.72	0.32	-1.22	9.48	0.87%

Table Appendix 2.3.3: Risk Statistics for the 5-year Period of IA Europe

Risk Statistics for 5 Year Period
Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	-6.75	0.71	0.59	0.76	-	-0.09	-0.92	11.40
mean	0.20	1.00	1.00	1.00	0.31	0.31	-0.01	15.23
max	8.44	1.21	1.71	1.53	0.80	0.77	0.98	20.14
Men only								
min	-6.75	0.77	0.59	0.76	-	-0.09	-0.92	12.83
mean	0.74	0.99	0.97	0.99	0.34	0.34	0.07	15.23
max	8.44	1.21	1.71	1.53	0.80	0.77	0.98	20.14
Women participation								
min	-5.34	0.71	0.59	0.76	-	-0.02	-0.88	11.40
mean	0.19	1.01	1.00	1.02	0.31	0.30	-0.05	15.52
max	3.94	1.18	1.45	1.34	0.54	0.63	0.61	18.27
Unclassified								
min	-4.80	0.80	0.67	0.86	-	-0.03	-0.70	12.51
mean	-0.76	1.00	1.03	1.01	0.25	0.25	-0.13	15.14
max	3.30	1.15	1.32	1.31	0.48	0.46	0.45	18.55

Table Appendix 2.4.1: Discrete Annual Performance of IA North America

Annual Performance & Number of Funds in Year

All funds	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	18.99	10.74	23.62	3.56	31.86	6.74	17.16	2.27	34.68	6.35
Number of funds	112	128	138	150	167	189	200	214	225	230
Men only	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	17.67	10.92	23.83	2.76	32.06	7.48	17.51	3.69	35.07	4.15
Number of funds	65	74	82	87	89	95	95	101	105	105
Women participation	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*	*2021*
Average performance	20.22	10.47	23.99	3.42	30.29	7.54	16.91	3.60	35.31	4.22
Number of funds	*17*	*17*	*18*	*18*	*19*	*23*	*25*	*27*	*28*	*28*
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	21.13	10.51	22.98	5.16	32.07	5.47	16.81	0.18	34.05	9.35
Number of funds	30	37	38	45	59	71	80	86	92	97

Table Appendix 2.4.2: Descriptive Statistics for the 10-year Period of IA North America

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	15.60	11.63	0.54	-1.08	11.59	0.30%
Men only	15.51	11.79	0.58	-1.03	11.89	0.26%
Women participation	15.60	11.60	0.52	-1.12	11.66	0.29%
Unclassified	15.77	11.60	0.40	-1.08	8.95	1.14%

Table Appendix 2.4.3: Risk Statistics for the 5-year Period of IA North America

Risk Statistics for 5 Year Period
Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	-9.67	0.42	0.25	0.21	0.04	0.04	-1.21	11.61
mean	0.29	0.99	0.98	0.99	0.76	0.73	0.04	15.39
max	5.76	1.57	2.20	1.87	1.14	1.21	0.91	32.90
Men only								
min	-9.67	0.71	0.65	0.58	0.04	0.04	-1.21	11.61
mean	0.28	1.01	1.00	0.98	0.78	0.75	0.06	15.35
max	5.33	1.38	1.62	1.87	1.08	1.21	0.82	26.92
Women participation								
min	-4.14	0.76	0.60	0.74	0.34	0.30	-0.59	12.35
mean	0.17	1.00	1.00	1.00	0.74	0.72	-0.01	15.67
max	5.34	1.57	1.85	1.51	1.08	1.16	0.71	29.61
Unclassified								
min	-8.49	0.42	0.25	0.21	0.19	0.18	-0.67	12.00
mean	0.35	0.96	0.95	1.00	0.74	0.71	0.03	15.36
max	5.76	1.32	2.20	1.71	1.14	1.21	0.91	32.90

Table Appendix 2.5.1: Discrete Annual Performance of Sterling Corporate Bond

Annual Performance & Number of Funds in Year

All funds	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	14.93	0.33	8.37	1.31	8.98	1.24	3.20	5.20	4.79	- 7.37
Number of funds	68	75	80	84	85	94	95	97	101	102
Men only	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	14.77	0.41	8.25	1.07	8.85	1.17	3.21	5.04	5.01	- 7.12
Number of funds	54	57	58	61	62	69	70	70	70	70
Women participation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	16.76	0.49	9.41	2.46	11.66	2.06	3.50	6.56	4.76	- 8.78
Number of funds	7	10	10	10	10	11	11	12	13	14
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	14.26	- 0.52	8.05	1.57	7.56	0.98	2.92	4.81	3.96	- 7.23
Number of funds	7	8	12	13	13	14	14	15	18	18

Table Appendix 2.5.2: Descriptive Statistics for the 10-year Period of Sterling Corporate Bond

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	4.10	5.99	- 0.09	1.11	1.91	38.55%
Men only	4.07	5.90	- 0.06	1.05	1.68	43.23%
Women participation	4.89	6.93	- 0.25	1.13	2.30	31.74%
Unclassified	3.64	5.74	- 0.03	1.23	2.27	32.17%

Table Appendix 2.5.3: Risk Statistics for the 5-year Period of Sterling Corporate Bond

Risk Statistics for 5 Year Period
Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	-1.38	0.33	0.28	0.24	-	-0.30	-0.78	2.06
mean	-0.00	1.00	0.99	1.00	0.07	0.04	0.00	5.63
max	2.99	2.04	2.23	1.61	0.51	0.41	1.51	11.51
Men only								
min	-1.38	0.33	0.28	0.24	-	-0.30	-0.59	2.06
mean	0.04	0.99	0.98	1.02	0.07	0.04	0.01	5.58
max	2.99	2.04	2.23	1.61	0.51	0.41	1.51	11.51
Women participation								
min	-1.16	0.40	0.34	0.40	-	-0.20	-0.52	2.29
mean	-0.13	1.17	1.14	1.08	0.08	0.04	0.08	6.74
max	1.26	1.92	2.04	1.51	0.29	0.23	0.83	10.79
Unclassified								
min	-1.01	0.34	0.30	0.38	-	-0.22	-0.78	2.13
mean	-0.12	0.90	0.91	0.87	0.05	0.00	-0.11	4.96
max	1.58	1.27	1.39	1.16	0.35	0.32	1.46	6.94

Table Appendix 2.6.1: Discrete Annual Performance of IA Targeted Absolute Return

Annual Performance & Number of Funds in Year

All funds	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	7.78	4.31	6.00	0.03	5.46	2.32	0.10	-0.49	9.11	1.78
Number of funds	43	48	54	63	73	81	86	97	102	103
Men only	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	8.24	4.87	5.00	0.39	5.92	1.96	-0.25	-0.01	8.91	2.81
Number of funds	30	34	36	42	49	55	59	66	69	69
Women participation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	4.71	2.25	8.19	1.33	3.53	4.10	0.83	-1.74	11.31	-0.21
Number of funds	7	8	11	11	12	14	14	15	15	16
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	9.05	3.91	7.74	-2.94	5.55	1.89	0.89	-1.28	8.07	-0.42
Number of funds	6	6	7	10	12	12	13	16	18	18

Table Appendix 2.6.2: Descriptive Statistics for the 10-year Period of IA Targeted Absolute Return

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	3.64	3.40	0.29	- 1.31	3.08	21.45%
Men only	3.78	3.33	0.26	- 1.27	2.85	24.02%
Women participation	3.43	3.93	0.88	0.51	4.99	8.24%
Unclassified	3.24	4.25	0.03	- 1.52	3.47	17.63%

Table Appendix 2.6.3: Risk Statistics for the 5-year Period of IA Targeted Absolute Return

Risk Statistics for 5 Year Period

Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
All funds								
min	- 7.27	- 1.04	- 3.24	- 2.35	- 0.01	- 1.47	- 1.24	1.80
mean	0.67	0.97	1.01	0.94	0.26	0.16	- 0.04	6.19
max	16.42	3.88	7.40	4.89	2.00	2.26	1.08	24.82
Men only								
min	- 7.27	- 1.04	- 3.24	- 2.35	- 0.01	- 0.87	- 1.24	1.80
mean	0.74	0.97	1.03	0.94	0.27	0.19	- 0.01	6.35
max	16.42	3.66	7.40	3.62	2.00	2.26	1.08	24.82
Women participation								
min	- 3.56	- 0.14	- 0.72	- 0.36	-	- 1.47	- 1.07	1.96
mean	0.45	1.15	1.16	1.14	0.28	0.05	- 0.09	6.68
max	5.97	3.88	4.07	4.89	0.95	0.90	0.60	20.15
Unclassified								
min	- 3.63	- 0.20	- 0.31	- 0.22	-	- 0.51	- 1.15	2.15
mean	- 0.15	0.92	0.94	0.91	0.25	0.23	- 0.11	11.89
max	4.56	1.61	1.82	2.26	0.66	0.68	0.54	18.55

Table Appendix 2.7.1: Discrete Annual Performance of IA UK All Companies

Annual Performance & Number of Funds in Year

All funds	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	19.27	14.29	8.64	-3.14	19.41	7.86	1.79	-14.24	30.38	0.30
Number of funds	199	208	213	218	224	230	233	239	242	247
Men only	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	20.34	15.82	9.06	-2.28	19.56	7.93	1.65	-14.06	31.84	-0.53
Number of funds	128	132	136	139	143	145	146	149	150	151
Women participation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	17.43	13.26	8.59	-3.64	18.48	7.82	2.52	-12.52	30.29	-5.69
Number of funds	25	26	26	27	27	28	28	28	29	30
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	17.28	10.79	7.54	-5.18	19.48	7.69	1.80	-15.45	26.93	4.92
Number of funds	46	50	51	52	54	57	59	62	63	66

Table Appendix 2.7.2: Descriptive Statistics for the 10-year Period of IA UK All Companies

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	8.46	12.96	-0.05	-0.09	0.03	98.68%
Men only	8.93	13.39	0.01	-0.17	0.05	97.72%
Women participation	7.65	12.90	0.12	-0.39	0.31	85.78%
Unclassified	7.58	12.27	-0.35	0.27	0.84	65.77%

Table Appendix 2.7.3: Risk Statistics for the 5-year Period of IA UK All Companies

Risk Statistics for 5 Year Period
Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

All funds	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
min	- 8.25	0.50	0.36	0.18	- 0.01	- 0.23	- 1.04	11.16
mean	0.37	0.99	0.98	1.00	0.20	0.18	0.02	16.37
max	10.55	1.58	1.72	1.83	0.90	0.81	1.41	27.85
Men only								
min	- 8.25	0.50	0.36	0.18	- 0.01	- 0.23	- 1.04	11.72
mean	0.39	1.01	1.01	1.03	0.20	0.18	0.03	16.74
max	10.44	1.45	1.72	1.65	0.90	0.81	1.41	23.89
Women participation								
min	- 5.47	0.68	0.70	0.64	- 0.01	- 0.12	- 0.61	11.16
mean	- 0.46	1.01	0.99	1.00	0.14	0.13	- 0.11	16.80
max	2.32	1.30	1.53	1.38	0.32	0.29	0.60	21.27
Unclassified								
min	- 5.44	0.75	0.52	0.65	- 0.01	- 0.10	- 0.45	12.63
mean	0.73	0.93	0.91	0.92	0.22	0.21	0.08	15.20
max	10.55	1.58	1.68	1.83	0.69	0.62	1.01	27.85

Table Appendix 2.8.1: Discrete Annual Performance of IA UK Equity Income

Annual Performance & Number of Funds in Year

All funds	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	21.52	14.99	8.97	- 2.46	16.47	5.29	0.38	- 16.55	26.62	6.60
Number of funds	69	71	71	72	75	78	81	83	83	85
Men only	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	21.26	15.27	8.77	- 2.45	16.80	5.55	0.54	- 16.41	27.46	5.93
Number of funds	53	53	53	54	57	59	62	64	64	65
Women participation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	22.50	15.00	9.69	- 1.39	15.94	5.34	0.14	- 17.42	22.46	8.38
Number of funds	11	11	11	11	11	11	11	11	11	11
Unclassified	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Average performance	22.15	12.85	9.40	- 4.24	14.59	3.37	- 0.51	- 16.47	25.62	9.23
Number of funds	5	7	7	7	7	8	8	8	8	9

Table Appendix 2.8.2: Descriptive Statistics for the 10-year Period of IA UK Equity Income

Descriptive Statistics for 10 year Period to 2022:

	Mean	SD	Skew	Kurt	Jarque-Bera Test Statistic	p value
All funds	8.18	12.61	- 0.51	0.37	1.75	41.74%
Men only	8.27	12.72	- 0.44	0.33	1.33	51.35%
Women participation	8.06	12.19	- 0.85	0.86	5.46	6.52%
Unclassified	7.60	12.57	- 0.47	0.15	1.38	50.06%

Table Appendix 2.8.3: Risk Statistics for the 5-year Period of IA UK Equity Income

Risk Statistics for 5 Year Period

Alpha, Beta, Sharpe, Sortino & Information Ratios for min and max values

	5 year Alpha	5 year Beta	5 year Bull Beta	5 year Bear Beta	5 year Sharpe	5 year Sortino	5 year Info Ratio Rel.	5 year Volatility
All funds								
min	- 10.27	0.64	0.51	0.61	- 0.01	- 0.42	- 1.40	11.59
mean	- 0.24	1.01	1.01	1.01	0.15	0.14	- 0.04	16.09
max	4.57	1.38	1.59	1.49	0.42	0.46	1.18	22.08
Men only								
min	- 10.27	0.64	0.51	0.61	- 0.01	- 0.42	- 1.40	11.59
mean	- 0.16	1.00	1.01	0.99	0.16	0.14	- 0.04	16.03
max	4.57	1.38	1.59	1.49	0.42	0.46	1.18	22.08
Women participation								
min	- 3.35	0.84	0.70	0.88	-	- 0.04	- 0.75	13.72
mean	- 0.61	1.03	1.03	1.09	0.14	0.12	- 0.11	16.27
max	2.90	1.16	1.27	1.36	0.36	0.33	0.55	18.75
Unclassified								
min	- 4.52	0.90	0.64	0.87	-	- 0.11	- 0.75	14.00
mean	- 0.31	1.02	0.97	1.02	0.16	0.13	0.01	16.27
max	2.25	1.20	1.28	1.30	0.32	0.32	0.54	19.39