Riding the Wave of Responsibility: Evidence from China's Mutual Funds

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Abstract

Since the early 2000s, corporate social responsibility (CSR) has emerged as a significant factor in corporate decision-making and financial markets, partly driven by China's government policies. Utilizing mutual fund holdings data, we compute a CSR score for each fund to gauge its exposure to socially responsible investments (SRI). Our findings indicate a positive correlation between higher CSR scores of mutual funds and better performance. Specifically, scores related to shareholder equity responsibility and responsibilities towards suppliers, customers, and consumer rights positively contribute to fund performance. These results suggest that SRI activities yield financial rewards for investors and funds. Our research highlights that mutual funds are responsive to investor preferences for CSR attributes. Funds achieve improved performance by directing capital towards stocks with higher CSR ratings. Mutual funds can effectively align with investor values while improving their financial outcomes in China.

JEL Classification: G11, G15, G23 Keywords: CSR, mutual funds, performance, SRI

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1. Introduction

The Corporate Social Responsibility (CSR) movement began in China when the National People's Congress introduced CSR as a legal obligation in the amended Company Law in 2005. Since then, corporations have been encouraged to integrate social, environmental, and economic sustainability impacts into their business practices and values. While the CSR concept in China is similar to that in Western-developed economies, the initiation of CSR practices was mainly driven by government policy rather than the voluntary commitment of the private sector (Tang, 2012; Wang, 2022).

Since 2008, listed companies in China have been required to disclose their social responsibility practices mandated by a series of regulations¹. Due to the improved reporting and disclosure requirements of CSR practices, a company's CSR profile has become increasingly crucial to retail and institutional investors when making portfolio allocation decisions. Despite an extensive body of literature on a corporation's social responsibility performance and its impact on firm value, risk management, and corporate policies, the existing literature offers mixed evidence regarding the effects of CSR on portfolio performance (Atz et al. 2022; Matos 2020).

Intuitively, social responsibility investing (SRI) imposes restrictions on a fund's investment universe, potentially limiting the manager's options. As fund managers exclude potentially high-performing assets, such as those from the "sin" industry, funds may underperform by forgoing profitable opportunities. However, on the other hand, as investors and the market value social responsibility, the focus on SRI can be seen as a positive signal, attracting long-term-oriented and performance-insensitive capital. Gil-Baza et al. (2010) studied the financial performance of SRI mutual funds and the role played by fund management companies. The authors documented that from 1997 to 2005, US SRI funds had better pre- and post-fee performance of SRI funds was attributed to the specialization of fund management companies. Nofsinger and Varma (2014) also documented that SRI funds outperformed the matched conventional mutual funds during periods of market crisis at the cost of underperforming during non-crisis periods. The protective or hedging role of SRI investment has also been supported in

¹ In 2005, the revised Company Law strengthened the legal status of CSR. The State Council released "Guiding Opinions on the Implementation of Social Responsibilities of Central Enterprises" in 2008. Both Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE) started promoting disclosure by the listed companies since 2006.

Zhang et al. (2023) and Yi et al. (2021). However, more recently, El Ghoul and Karoui (2017) found that, compared to low-CSR funds, high-CSR funds displayed poorer performance, more substantial performance persistence, a weaker performance-low relationship, and comparable flow persistence. Instead of comparing SRI funds with conventional funds, El Ghoul and Karoui (2022) proposed two proxies for measuring fund deviations from SRI: social active share and social tracking error. They found that more socially responsible funds outperformed their less socially responsible peers based on the two proxies. The authors further confirmed that SRI can reduce fund risk.

Despite limitations on investment opportunities, many studies have found that investors and fund managers incorporate sustainability into their portfolio allocation decisions. Borgers et al. (2015) analyzed U.S. mutual fund investment in socially sensitive stocks and found that social considerations are essential during fund portfolio construction. Managers do not heavily tilt towards controversial stocks despite the potential for higher returns from "sin" stocks. Riedl and Smeets (2017) found that financial motives play a lesser role in socially responsible investment decisions. Socially responsible investors are willing to sacrifice financial performance to invest following their social preferences. Hartzmark and Sussman (2019) provided further evidence that investors value sustainability and view it as a positive company attribute. Although high-sustainability funds do not consistently outperform low-sustainability funds, investor capital flows into high-sustainability funds. The financial payoff of SRI remains unclear; however, the literature suggests that investors value sustainability due to non-pecuniary motives.

While socially responsible practices are crucial for SRI funds, with increased investor awareness and CSR information disclosure, capital allocation to socially responsible investment is not limited to socially accountable funds alone; it has become a universal concern for all fund industries. Recent literature suggests that CSR performance and its impact vary across countries (Cai, Pan, and Statman, 2016; Liang and Reneboog, 2017; Griffin et al., 2021). Different legal and institutional environments, cultures, and social norms affect CSR practices and investor demand for them. In this study, we offer empirical evidence using Chinese data. We examine the impact of SRI on the performance of mutual funds in China. To gauge funds' socially responsible investment exposure, we calculate a fund CSR score based on funds' holdings information and the CSR profiles of listed firms. Our findings show that the CSR score positively correlates with fund performance across all three return measurements, with control for fund prior performance, flow, and other characteristics. Across different CSR score dimensions, we find that shareholder equity responsibility (SR) and supplier, customer, and consumer rights responsibility (SCCR) scores

positively correlate with fund performance. In contrast, employee, environment, and society responsibilities negatively correlate with fund performance. Our flow-performance analysis results align with existing literature, suggesting that flow is influenced by past performance and the fund's CSR score. Additionally, we find that the average fund holdings are significantly higher for stocks with better CSR performance. These results indicate that mutual funds cater for the investor's preference for CSR and enhance their returns by allocating capital to higher CSR stocks.

Our study contributes in several ways. First, based on fund holdings information, we compute a CSR score for China's mutual funds. This CSR score quantifies the fund's engagement in SRI, serving as a reference for investors and fund managers. Our results demonstrate that both investors and the market value SRI. Secondly, while existing literature suggests that investors' interest in SRI is primarily driven by non-pecuniary motives such as altruism or social morals, our evidence from the Chinese market indicates that high-CSR companies are rewarded in the stock market. Mutual funds enhance their performance by increasing holdings of high-CSR stocks. Therefore, our findings suggest a "win-win" scenario for both CSR companies and fund investors. Furthermore, consistent with the characteristics of emerging markets, particularly a weaker legal and institutional environment, we reveal that fund investors highly value shareholder protection and supplier, customer, and consumer rights. Our study provides insight into how social norms interact with financial benefits in an emerging market where investors are often assumed to be primarily driven by financial gains.

The remainder of our paper is structured as follows: Section 2 introduces our data sample and regression framework. Section 3 presents our empirical results, and we conclude in Section 4.

2. Data and methodology

2.1 Data and sample

We obtained firm CSR score data from Hexun.com, China's leading CSR rating platform². Hexun CSR rating data covers all listed companies in the Chinese capital market and reports CSR performance scores for all listed companies annually. Hexun CSR rating system evaluates firm CSR performance from five dimensions of responsibility: shareholder equity responsibility (30%), employee responsibility (15%), supplier, customer and consumer rights responsibility (15%), environment responsibility (20%), and society responsibility (20%). The rating score is industry-adjusted. We collect every company's total CSR score and individual dimension scores from 2010 to 2021.

We obtained our sample of mutual funds from the China Stock Market & Accounting Research (CSMAR) Mutual Fund database. The CSMAR mutual fund database provides information on fund returns, total net assets, fees, investment objectives, and other fund characteristics. We include all Chinese domestic equity and hybrid funds in the CSMAR database from 2010-2021. The stock market information and company characteristics are from the WIND Stock Database, including stock returns, market values, and other financial variables. Lastly, the returns of Fama and French's three factors and the momentum factor are from the CSMAR Chinese Factor Database.

2.2 Variable construction and main regression model

2.2.1 Fund CSR score

Following El Ghoul & Karoui (2017) and Hwang et al. (2021), we construct the CSR score for every fund at the half-year level based on the fund's semi-annual stock holding disclosure and annual CSR score. The fund CSR score, *FundCSR*, is calculated as follows:

$$FundCSR_{i,t} = \sum_{j=1}^{N} \omega_{i,j,t} \times CSR_{j,T-1} \quad (1)$$

Where $\omega_{i,j,t}$ is the weight of stock *j* in fund *i*'s stock holding at the end of half year *t*; *N* is the total number of stocks in fund *i*'s stock holding at the end of half year *t*; and $CSR_{j,T-1}$ is the CSR score of stock *j* at the end of year *T-1* (previous year).

Furthermore, following the same approach, we calculate the fund CSR dimension score based on the fund's semi-annual stock holding disclosure and yearly firm CSR dimension score. We construct the fund CSR dimension score variables:

² Another rating agency publishing the complete rating data is the Runlin. According to Zhong, et al. (2019), Runlin is more suitable for CSR disclosure quality rather than the CSR performance.

Fund_Shareholder, *Fund_Staff*, *Fund_Supplier*, *Fund_Enviro* and *Fund_Society*. These variables measure how fund holdings are exposed to listed firms' CSR dimensions.

2.3 Main regression model

To examine whether fund holding CSR level has an impact on fund performance, we construct the main regression model as follows:

 $Fundperf_{i,t+1} = \beta_0 + \beta_1 \cdot FundCSR_{i,t} + \phi \cdot Controls_{i,t} + \varepsilon_{i,t} \quad (2)$

where *Fundperf*_{*i*,*t*+1} are the semi-annual performances of fund *i* in half year *t*+1, which are measured using three variables: Raw return, Objectad return, and Alpha. Raw return is a semi-annual dividend and expense-adjusted fund return. Objectad return is investment objective-adjusted fund return, a semi-annual raw return subtracting the median return of their investment objective peers. Alpha is the Carhart four-factor riskadjusted alpha calculated from daily return data over every half-year period. FundCSR_{i,t} is the semi-annual fund CSR score at half-year t calculated by equation (1). Controls_{i,t} is the vector for control variables, which includes fund age, measured as the number of years of the fund's existence (Fund age); total net assets of the fund (Fund Size), measured as the natural logarithm of fund TNA; the size of fund family (FamilySize), measured as the natural logarithm of one plus the number of mutual funds that are under the same fund management company; management fee (Management Fee); expense ratio, (Expense ratio) is calculated by dividing the fund's operating expenses by the TNA of funds; fund flow, (Fund Flow) is calculated by the change in TNA excluding growth at half year level; fund turnover, (Fund turnover) defined as the minimum of sales or purchases divided by the TNA of the fund at half-year level. We also control previous fund performance (Previous return) to test the performance persistence. In the regression, we also control for fixed effects, fund family fixed effects, and investment objective fixed effects, and we cluster standard errors at the fund level.

3. Empirical results

3.1 Univariate analysis

We sorted the whole fund sample into five groups based on the CSR score. Group one funds have the lowest CSR score, and group five funds have the highest. Then, we compute the average fund performance and characteristics for each group and estimate the differences between the lowest CSR score group and the highest CSR score group. Table 1 presents the univariate analysis results of fund performance and fund characteristics. The top panel in Table 1 reports the performance measures, including *Raw return, Objectad return,* and *Alpha*. The bottom panel provides the fund characteristics of five groups. Our results suggest a positive association of fund CSR score and performance in general. The performance difference between group five and group one is significantly positive when the performance is measured by raw and objective-adjusted returns.

Interestingly, however, we find the positive association is not linear. The performance increases in the first three groups and peaks in group three, and then it starts to decline mildly in groups four and five. These results suggest that though CSR exposure positively affects fund performance, there is a trade-off between funds SRI and performance enhancement. When examining the fund characteristics, we find that CSR funds are older, larger, and charge higher management fees. In addition, high CSR funds have fewer family members and also experienced less capital flow during the sample period. There is no significant difference in fund alpha, turnover, and expense ratio between the high CSR group and the low CSR group.

3.2 Main regression: Fund future performance and fund CSR score

We first study whether a fund's CSR score affects fund performance by regressing fund CSR scores on the fund's future performance. The performance measures include *Raw return, Objectad return,* and *Alpha*. Meanwhile, we control fund's previous returns, age, size, family size, management fees, fund flow, fund turnover, and fund expense ratio. We also use the time fixed effect, fund family, and investment objective fixed effect. We report the multivariate regression results in Table 2. The results in Table 2 show that the fund CSR score positively predicts the fund performance in the next period across all three performance metrics. One unit increase of fund CSR score will enhance fund alpha by 0.036% semiannually. These results indicate that the higher CSR exposure will significantly improve the fund performance even after controlling for previous return, flow, fund age, size, family size, fund turnover, and expense ratio. Our results of control variables also suggest that younger and smaller funds that charge higher management fees perform better. Funds that have lower expense ratios also perform better. Further, we find evidence of performance persistence at the semi-annual level, as the coefficient on previous performance is significantly positive.

We then examine the impact of different aspects of CSR on fund performance by breaking down the fund CSR scores into five individual dimensions. The results in Table 3 show that the dimensions of shareholder equity responsibility (SR) and supplier, customer, and consumer rights responsibility (SCCR) positively contribute to the fund performance, while the company staff, environment, and society dimensions negatively affect the fund performance. The results suggest that investors and mutual funds in China highly value shareholder protection and supplier, customer, and consumer rights of holding stocks.

3.3 Flow-performance relationship and fund CSR score

Mutual fund investors chase best-performing funds; thus, performance mainly drives fund flow. We next examine how CSR scores interact with the fund flowperformance relationship. We run a regression of fund flow next period on fund performance, fund CSR, and their interaction while maintaining the same control variables. The regression results are reported in Table 4. The results in Table 4 indicate that fund flow is as expected, driven by previous performance across all three return metrics. The variable, Fund CSR, significantly attracts flows when returns are measured by objective adjusted return and fund alpha. The results here suggest both previous fund performance and fund involvement in CSR attract fund investors. While the CSR score doesn't seem to affect flow when performance is measured by raw return significantly, the interaction of Fund CSR and performance is significantly negative. The result here suggests that, in this case, higher CSR funds seem to exhibit less flowperformance sensitivity when the raw return measures performance. Our results are consistent with the previous literature, such as, El Ghoul & Karoui (2017) that funds invest in more socially responsible stocks attract investors less sensitive to fund performance.

Further, we find no evidence for flow persistence at the half-year level, as fund flow is negatively related to the previous flow shown in Table 4. Our results of control variables also suggest that younger funds, funds with lower management fees, and funds with fewer family members attract more capital flow. Interestingly, fund flows are positively related to the expense ratio, meaning high operating expense level funds attract more investors. The most likely explanation is that high-expense ratio funds tend to spend more on advertising and marketing, and the advertised fund usually attracts more money from investors (Jain & Wu, 2000).

3.4 Fund holding decision, firm CSR score, and stock performance

Fund CSR scores predict future performance, likely because fund managers intentionally increase their holdings of higher CSR stocks in their portfolio. We investigate whether company CSR scores indicate fund-holding decisions in the next period. We run a regression using the average holding percentage of all funds for a stock as the dependent variable (*Weight*), firm CSR, previous buy-and-hold return, firm size, leverage, return of asset (*ROA*), and institution ownership (*IO*) as the independent variables. The average percentage of fund holding variable *Weight*_{*i,j,t+1*} is the average weight assigned to stock *j* of all funds in the sample at half year *t*+1. All independent variables are firm characteristics at the end of half year *t*, except for the firm CSR. Firm CSR is the CSR rating of stock *j* at the end of year *T*-1 (previous year). Table 5 reports our regression results. Table 5 shows that firm CSR performance is significantly and

positively related to funds' holding percentage in the following two semi-annual periods, indicating that the higher the firm CSR ratings, the higher the funds' holding weight. Funds also increase their holdings of previous outperforming stocks, lower book-to-market, and large-cap stocks. The result suggests that stock CSR performance is an essential factor in funds' portfolio construction.

Our results above suggest mutual funds tilt their holdings to high CSR stocks, and we suspect higher CSR stocks might have strong performance in the market. We thus further examine whether a firm CSR score predicts the stock performance by regressing stock yearly performance on the annual firm CSR score and other firm characteristics. Alternatively, we also regress stock returns on five individual dimension scores. In all regressions, we control for previous stock return, book-to-market ratio (BM), size, leverage, return of equity (ROA), and institutional ownership (IO). The results for the first specification in Table 6 show that CSR scores significantly predict higher stock returns in the coming year. When five individual CSR dimensions are employed in specification 2, we find shareholder equity responsibility and the company staff performance are the main driving forces to predict the stock return next period. While the supplier and society scores do not significantly affect stock return next period, the environment dimension is significantly negative to future stock performance. The results indicate stock investors favor corporate social responsibility in China; however, only firms with higher shareholder value protection, stronger employee care, and lower environmental responsibility.

3.5 Robustness Test and Endogeneity

3.5.1 Robustness test

If both investors and the market values CSR, then performance enhancement should exist when the fund's CSR score improves. To test the robustness of our results, we replace the fund CSR score variable in equation (2) with the fund CSR score changes (*FundCSR*_{*i*,*t*}-*FundCSR*_{*i*,*t*-1}) to examine the impact on fund performance. The regression results using the fund CSR score change are shown in Table 7. We find that the change in fund CSR is positively related to fund performance across all three return metrics. The result is consistent with previous findings in Table 2.

So far, our analyses have used fund CSR scores, which are computed based on the fund holdings information and the CSR ratings of firms. However, CSR ratings are static assessments and are published only once a year. Thus, ratings do not reflect the dynamic changes of a firm's CSR engagement. Therefore, to ensure the robustness of our results, we follow El Ghoul & Karoui (2022) to compute an alternative variable to assess the social activeness of funds from a return tracking error aspect. We construct the new variable, *Fund CSR STE*, which is the standard deviation of the return

difference between the fund and the Chinese Corporate Social Responsibility (CCSR) index³ in the Shanghai Stock Exchange. We compute the tracking error at semi-annual frequency using daily returns as follows:

 $Fund_CSR_STE_{i,t} = Std(Fund return_{i,t} - CCSR index return_t)$ (3).

When funds deviate more from the CCSR index, funds are expected to be less socially responsible, so higher *Fund_CSR_STE* represents a lower social responsibility investing level. We use the fund CSR tracking error to measure fund CSR performance and report the regression results in Table 8. The results in Table 8 show that the tracking error of fund return is negatively related to fund performance across all three return metrics. This result implies that less socially responsible fund exhibits lower performance, consistent with our previous findings.

3.5.2 Endogeneity

Our results might suffer from an endogeneity problem, as better-performed funds could be more motivated to engage in corporate social responsibility. We try to address this potential endogeneity through two tests. The first test is to utilize the information in fund names in our sample. Funds usually label their characteristics, such as investment objectives, in their names. If the fund name contains the Chinese characters "corporate social responsibility" or the English characters "CSR" or "ESG", it signals the fund has a high priority to invest in better CSR companies⁴. We construct a new dummy variable, *Fund_CSR_name*, which equals one if the fund *i*'s name reveals the CSR preference. We replace *Fund_CSR* in equation (2) with *Fund_CSR_name* and examine the relationship between fund performance and CSR investment. Table 9 reports the results. The results show that funds with a name associated with CSR perform better when performances are measured as the raw returns and objective-adjusted returns. The results support our conjecture that the market values the fund with CSR themes higher, given controls for all other characteristics.

Secondly, we construct an instrument variable (IV) for our CSR score and run a two-stage least-square (2SLS) estimation to mitigate the endogeneity issue. With increasing concerns over sustainable development in both the public and private sectors, the local government's focus on sustainability and social responsibility will influence local companies' investment decisions. We thus employ the local focus of sustainable development level (LFSD) as our instrument. Our chosen IV measures local government's emphasis on sustainable development in cities where the mutual fund

³ Chinese corporate social responsibility index has been released by Shanghai Stock Exchange since 2009, which selects 100 stocks with good CSR performance from corporate governance sector of the Exchange. The index in Shanghai Stock Exchange call "责任指数", the code is 000048.

⁴ For example, a fund called "兴全社会责任混合型证券投资基金" whose name contains the Chinese characters "社会责任", which means social responsibility.

companies are located. IV will affect the probability that a mutual fund company holds more socially responsible portfolios because the local government encourages enterprises under the jurisdiction to invest in social, environmental, and economic targets. However, IV is unlikely to affect fund performance. Thus, we expect LFSD to be a valid IV for the fund CSR score.

To construct LFSD, we collect the local focus of sustainable development information from all country-level cities' annual government work reports. We identify keywords about sustainable development in government work reports such as "development concept", "green production", "green life", "green ecology" or "system construction"⁵. We count the number of sustainable development keywords in every city local government work report. Then we compute the LFSD as the percentage of sustainable development keywords over the total number of words in the report. The higher the rate, the more focused the local government is on sustainability development. Then, we employ the LFSD of cities where the mutual fund companies are located as the IV variable- *City_Sustainablefocus*.

In the first stage of 2SLS regression, shown in column (1), Table 10, the IV variable, *City_Sustainablefocus*, is significantly and positively related to our main independent variable (*Fund CSR*) with an F-statistic of 105.959, after we control for year, fund family and investment objective fixed effects. Thus, we reject the null hypothesis that IV is weak. The result suggests that the local sustainable development level will increase the fund CSR score, and the *City_Sustainablefocus* variable is a valid instrument for *Fund CSR*. Column (2) of Table 10 reports the results of second-stage estimation. The variable *Fund_CSR* (with instrument *City_Sustainablefocus*) is significantly positive to fund performance, and the relationship is consistent with our findings in Table 2. Thus, we believe our previous results that fund CSR score enhances funds' performance shown in Table 2 are not due to endogeneity.

4. Extended analyses

Lastly, we study a shock to the fund management industry in China when a group of selected fund management companies signed up for the UN-supported Principles for Responsible Investment (PRI). When the funds' management company became a signatory, the funds they manage were obligated to prioritize the SRI. We created a dummy *Post* to identify the sample period following the signatory event of their fund

⁵ Sustainable development keywords includes "development concept", "green production", "green life", "green ecology" or "system construction" five categories, "development concept" category contains "low-carbon economy", "green economy" or "eco-city" et al., "green production" category contains "industrial water saving", "energy saving and emission reduction" or "green manufacturing" et al., "green life" category contains "domestic garbage", "green consumption" or "green travel" et al., "green ecology" category contains "afforestation", "water conservation" or "lucid waters and lush mountains" et al., "system construction" category contains "public participation", "green governance" or "local legislation" et al.

management companies. *Post* equals one for three half-years after the funds' management companies signed the PRI and zero for the prior three half-years. Then, we run the same regression with this dummy variable. The results in Table 11 show that the dummy *Post* is significantly positive across all return metrics. This indicates that once the fund management companies sign up for PRI, the performances of their affiliated funds are significantly higher. This result, coupled with results in Table 2, demonstrates that investors value funds SRI positively.

To further examine fund CSR performance enhancement, we created a dummy *PRI* to identify the sample of PRI-signed funds, which equals one if the funds' management companies already signed to the PRI and zero for non-signing funds. Then, we examine how *PRI* interacts with the fund CSR-performance relationship. We run a regression of fund performance on *Fund CSR*, *PRI*, and their interaction term while maintaining the same control variables and report the results in Table 12. As shown in Table 12, the coefficients on *Fund CSR* and *Fund CSR* **PRI* are significantly positive across all return metrics, indicating that signing PRI enhances the effect of fund CSR score on fund future performance.

5. Conclusion

Whether investors value corporate SRI is an ongoing debate. Unlike development markets, where SRI is mostly a voluntary action of corporations, China's CSR movement is driven by government policy. In this study, we present fresh evidence of the impact of SRI on China's mutual funds industry. We find that SRI engagement, quantified by the CSR scores of mutual funds, significantly enhances the fund performance. In line with its emerging market characteristics, we reveal that Chinese mutual fund investors particularly value shareholder equity responsibility and supplier, customer, and consumer rights responsibility positively. Our research indicates mutual funds cater to investors' preferences for CSR attributes by directing capital towards stocks with higher CSR ratings. Though existing literature suggests investors value sustainability for nonpecuniary motives in developed markets, our results indicate that both investors and funds are financially rewarded for the SRI involvement in China. Mutual funds can effectively align with investor values while improving their financial outcomes in China.

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fund CSR score	Q1	Q2	Q3	Q4	Q5	Q5-Q1	
	Mean	Mean	Mean	Mean	Mean	Diff	t.stat
Performance							
Raw return	0.043	0.076	0.080	0.077	0.063	0.020^{***}	8.97
Objectad_return	-0.018	0.013	0.017	0.014	0.006	0.024^{***}	15.50
Alpha (%)	0.018	0.023	0.022	0.021	0.018	0.000	0.02
Fundcharacteristics							
Fund age	3.140	3.989	4.96	4.902	4.971	1.831***	37.73
Fund size	19.511	19.528	19.84	19.843	19.706	0.195***	7.48
Family size	24.449	24.04	24.101	24.205	24.263	-0.185***	-8.52
Management fee	0.899	1.225	1.357	1.311	1.085	0.186^{***}	30.20
Fund flow	0.443	0.275	0.143	0.097	0.125	-0.319***	-11.89
Fund turnover	0.636	1.226	1.23	1.212	0.995	0.359	14.45
Expense ratio	0.033	0.034	0.022	0.021	0.018	-0.015	-12.63
N	8,932	8,939	8,946	8,946	8,950		

Table 1 Univariate analysis

This table reports univariate analysis results on fund performance and fund characteristics. Each half year period funds are sorted into equally weighted quintile portfolios based on fund previous CSR score. Column (1) and (2) show the average fund performance and fund characteristics for funds in *CSR_High* and *CSR_low* groups. Column (3) reports the mean difference in performance and characteristics between the *CSR_High* and *CSR_low* groups. Column (4) reports the t-statistic for the difference in means. Fund performance variables includes: *Raw return*, *Objectad return* and *Alpha*. *Raw return* is semi-annual dividend and expense adjusted fund return. *Objectad return* is investment objective-adjusted fund return, which is semi-annual raw return subtracting the median return of their investment objective peers. *Alpha* is Carhart four-factor risk adjusted alpha calculated from daily return data over every half year period. Fund characteristics includes *Fund age*, *Fund Size*, *Management fee*, *Expense ratio*, *Fund Flow*, *Fund turnover*.

	(1)	(2)	(3)
	<i>Raw return</i> _{t+1}	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Fund_CSR	0.0009^{***}	0.0007^{***}	0.0002^{***}
	(13.35)	(11.57)	(4.10)
Previous return	0.0282***	0.0583***	0.0125***
	(4.88)	(10.62)	(3.68)
Fund age	-0.0006**	-0.0010***	-0.0004***
	(-3.10)	(-5.68)	(-3.29)
Fund size	-0.0032***	-0.0016***	-0.0015***
	(-6.65)	(-3.54)	(-4.82)
Family size	-0.0373***	-0.0112***	-0.0139***
-	(-19.38)	(-7.41)	(-12.61)
Management fee	0.0233***	0.0195***	0.0046**
	(11.48)	(9.94)	(3.29)
Fund flow	-0.0003	-0.0006	0.0000
	(-0.74)	(-1.66)	(0.13)
Fundturnover	-0.0007	0.0006	-0.0012***
	(-1.46)	(1.34)	(-4.27)
Expense ratio	-0.0235*	-0.0322**	-0.0049
	(-2.11)	(-3.11)	(-0.78)
Cons	0.7999****	0.2495***	0.3319***
	(17.94)	(7.07)	(12.86)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
N	39391	39391	39391
adj. R^2	0.368	0.029	0.242

Table 2 Fund performance and CSR score

adj. R^2 0.368 0.029 0.242 This table reports the estimates of the equation: $Fundperf_{i,t+1} = \beta_0 + \beta_1 \cdot FundCSR_{i,t} + \phi \cdot Controls_{i,t} + \varepsilon_{i,t}$, which regress fund performance on fund CSR score and other fund characteristics. $Controls_{i,t}$ is the vector for lagged control variables mentioned in 2.2. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> $_{t+1}$	$Objectad_return_{t+1}$	$Alpha_{t+1}$
Fund_Shareholde	0.0041***	0.0053***	0.0015^{***}
	(17.51)	(24.92)	(9.12)
Fund_Staff	-0.0002	-0.0041**	-0.0035***
	(-0.16)	(-3.01)	(-3.75)
Fund Supplier	0.0164***	0.0096***	0.0030***
	(13.04)	(8.50)	(3.89)
Fund Enviro	-0.0203***	-0.0109***	-0.0025**
—	(-13.74)	(-8.75)	(-2.90)
Fund Society	-0.0042***	-0.0056***	-0.0008
	(-6.76)	(-9.99)	(-1.90)
Previous return	0.0167**	0.0454***	0.0095**
	(2.90)	(8.42)	(2.84)
Fund age	-0.0006***	-0.0010***	-0.0004***
	(-3.40)	(-5.88)	(-3.50)
Fund size	-0.0020***	-0.0007	-0.0005
	(-4.34)	(-1.66)	(-1.44)
Family size	-0.0367***	-0.0107***	-0.0132***
	(-19.22)	(-7.17)	(-12.27)
Management fee	0.0160^{***}	0.0101^{***}	0.0019
	(7.84)	(5.42)	(1.25)
Fund flow	0.0079***	0.0055***	0.0053***
	(11.31)	(7.89)	(16.98)
Fundturnover	-0.0017***	-0.0007	-0.0016***
	(-3.63)	(-1.66)	(-5.61)
Expense ratio	-0.0288^{*}	-0.0263*	-0.0103
	(-2.54)	(-2.50)	(-1.60)
Cons	0.7957^{***}	0.2544***	0.3028***
	(18.14)	(7.37)	(12.01)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
N	38770	38770	38770
adj. <i>R</i> ²	0.381	0.052	0.255

Table 3 Fund performance and CSR dimension score

This table reports results from regressing fund performance on fund CSR dimension score and other fund characteristics. Fund CSR dimension score variables includes *Fund_Shareholder*, *Fund_Staff*, *Fund_Supplier*, *Fund_Enviro* and *Fund_Society*. The calculation method of these variables is same as Fund CSR score. Other variables are same in Table 2. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	Fund flow _{t+1}	<i>Fund flow</i> _{t+1}	Fund $flow_{t+1}$
Perform	Raw return	Objectad_return	Alpha
<i>Perfor</i> _t	1.0378***	0.6890^{***}	0.7202^{*}
	(7.61)	(3.40)	(2.30)
Perfor _t *Fund_CSR	-0.0239***	-0.0012	0.0193
	(-5.67)	(-0.16)	(1.59)
Fund_CSR	0.0006	0.3970^{***}	0.4347^{***}
	(0.67)	(5.60)	(4.27)
Previous Perform	0.0330	0.0583^{***}	0.0125^{***}
	(0.95)	(10.62)	(3.68)
Fund age	0.0041	0.0038	0.0044^*
	(1.94)	(1.71)	(2.03)
Fund size	-0.1920***	-0.1939***	-0.1928***
	(-24.48)	(-23.12)	(-23.66)
Family size	-0.0749**	-0.0535*	-0.0782**
	(-2.86)	(-2.18)	(-2.83)
Management fee	-0.2456***	-0.2688***	-0.2538***
	(-7.33)	(-7.45)	(-7.31)
Fund flow	-0.0402***	-0.0390***	-0.0414***
	(-6.06)	(-5.36)	(-5.98)
Fundturnover	0.0309	0.0368^{*}	0.0289
	(1.91)	(2.08)	(1.71)
Expense ratio	1.8568^{***}	1.7371***	1.9106***
	(4.43)	(3.74)	(4.32)
Cons	6.0141***	5.5298***	6.1272***
	(9.91)	(9.67)	(9.62)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
Ν	38123	38123	38123
adj. R^2	0.084	0.087	0.009

Table 4 Flow-performance relationship and CSR

This table reports the estimates of the equation: $Fundflow_{i,t+1} = \beta_0 + \beta_1 \cdot Fundperf_{i,t} + \beta_2 \cdot Fundperf_{i,t} \cdot FundCSR_{i,t} + \beta_3 \cdot FundCSR_{i,t} + \phi \cdot Controls_{i,t} + \varepsilon_{i,t}$, which examine the effect of fund CSR score on fund flow-performance relationship. Controls_{i,t} is the vector for lagged control variables mentioned in 2.2. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)
	Weight_mean _{first half year}	Weight_meansecond half year
Firm_CSR	0.0014***	0.0011***
	(4.50)	(3.57)
Previous BHR	0.1471^{***}	0.1187^{***}
	(6.46)	(9.08)
BM	-0.4589***	-0.3988***
	(-15.96)	(-15.20)
Size	0.1191***	0.1250***
	(14.20)	(16.16)
Leverage	-0.0194	-0.0316
	(-0.85)	(-1.66)
ROA	0.0622	0.0036
	(1.22)	(1.03)
ΙΟ	-0.0001	-0.0004
	(-0.50)	(-1.33)
Cons	-1.8148***	-2.0328***
	(-10.36)	(-12.45)
Time Fe	Yes	Yes
Industry Fe	Yes	Yes
N	23571	24697
adj. R^2	0.161	0.153

This table reports the estimates of the equation: $Weight_mean_{j,t+1} = \beta_0 + \beta_1 \cdot FirmCSR_{j,T} + \phi \cdot Controls_{j,t} + \varepsilon_{i,t}$, which examine the effect of firm CSR score on funds' future holding decision. $Weight_mean_{j,t+1}$ is the average holding weight of all funds on firm *j* at the ending period of half year *t*+1. *FirmCSR_{j,T}* is the yearly firm CSR score. *Controls_{j,t}* is the vector for lagged firm semi-annual control variables, which includes previous buy-and-hold return (BHR); book-to-market ratio (BM); the natural logarithm of total assets (Size); return on assets (ROA); leverage (Leverage); the percent of shares held by institutional investors (IO). In all regressions, we control for time fixed effects and industry fixed effects and cluster standard errors at the firm level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)
	Stock return _{T+1}	Stock return _{T+1}
CSR_score	0.0013***	
	(7.15)	
Shareholder_score		0.0044***
		(8.95)
Staff_score		0.0076^{***}
		(3.97)
Supplier score		0.0020
		(1.47)
Enviro score		-0.0057***
		(-4.43)
Society score		-0.0007
		(-1.00)
Previous Stock return	-0.0275***	-0.0327***
	(-3.39)	(-4.00)
BM	0.0942***	0.1014***
	(5.80)	(6.31)
Size	-0.0382***	-0.0405***
	(-10.02)	(-10.68)
Leverage	0.0113***	0.0120***
	(6.00)	(5.52)
ROA	0.0041	0.0028
	(0.72)	(0.58)
ΙΟ	0.0003^{*}	0.0002
	(2.09)	(1.61)
Cons	0.7836^{***}	0.8003***
	(9.90)	(10.15)
Time Fe	Yes	Yes
Industry Fe	Yes	Yes
N	22727	22727
adj. R^2	0.268	0.270

Table 6 Stock return and CSR score

This table reports results from regressing stock yearly performance on firm CSR dimension score and other firm characteristics. Firm CSR score, dimension score and other variables are all mentioned in Table 5 and Table 6. In all regressions, we control for time fixed effects and industry fixed effects and cluster standard errors at the firm level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> $_{t+1}$	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Fund_CSR_change	0.0033***	0.0005^{***}	0.0006^{***}
	(29.04)	(6.02)	(10.64)
Previous return	0.0621***	0.0679^{***}	0.0177^{***}
	(10.48)	(12.05)	(5.10)
Fund age	-0.0002	-0.0008***	-0.0002
	(-1.20)	(-4.79)	(-1.91)
Fund size	-0.0024***	-0.0013**	-0.0015***
	(-4.82)	(-2.68)	(-4.59)
Family size	-0.0373***	-0.0120***	-0.0142***
	(-19.56)	(-7.76)	(-12.65)
Management fee	0.0308^{***}	0.0268^{***}	0.0066^{***}
	(15.66)	(13.86)	(5.06)
Fund flow	-0.0004	-0.0009^{*}	-0.0000
	(-0.90)	(-2.42)	(-0.03)
Fundturnover	0.0018^{***}	0.0018^{***}	-0.0008**
	(3.48)	(3.80)	(-2.78)
Expense ratio	-0.0582***	-0.0482***	-0.0107
	(-5.16)	(-4.63)	(-1.71)
Cons	0.9172^{***}	0.2813***	0.3496***
	(20.96)	(7.84)	(13.40)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
N	38736	38736	38736
adj. R ²	0.376	0.026	0.244

Table 7 Robustness test-1

This table reports results from regressing fund performance on fund CSR score change and other fund characteristics. *Fund_CSR_change* is the change in funds' CSR score from the end of half year t-1 to the end of half year t. Other variables are same in Table 2. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> _{t+1}	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Fund_CSR_STE	-0.2962***	-0.1247***	-0.0524***
	(-11.37)	(-10.15)	(-3.91)
Previous return	0.0413***	0.0624^{***}	0.0142^{***}
	(6.95)	(11.44)	(4.27)
Fund age	-0.0009***	-0.0010***	-0.0005***
	(-4.34)	(-5.80)	(-3.83)
Fund size	-0.0016**	-0.0006	-0.0004
	(-3.12)	(-1.24)	(-1.29)
Family size	-0.0372***	-0.0116***	-0.0134***
	(-19.31)	(-7.63)	(-12.48)
Management fee	0.0387^{***}	0.0327^{***}	0.0079^{***}
	(18.09)	(16.82)	(6.07)
Fund flow	0.0083***	0.0057^{***}	0.0054^{***}
	(11.73)	(8.19)	(17.10)
Fundturnover	0.0001	0.0012^{**}	-0.0011***
	(0.11)	(2.62)	(-3.93)
Expense ratio	-0.0511***	-0.0558***	-0.0174**
	(-4.40)	(-5.18)	(-2.70)
Cons	0.7983^{***}	0.2541***	0.3026***
	(18.11)	(7.23)	(12.04)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
Ν	38763	38763	38763
adj. <i>R</i> ²	0.378	0.034	0.253

Table 8 Robustness test-2

This table reports results from regressing fund performance on fund tracking error from Chinese CSR index and other fund characteristics. *Fund_CSR_STE* is the standard deviation of the difference in returns between the fund and the Chinese corporate social responsibility index in Shanghai Stock Exchange. We follow the method of Ghoul and Karoui (2022) to compute the tracking error at half year frequency using daily returns of fund raw return and CSR index return data. Larger *Fund_CSR_STE* means the fund is less socially responsible because its return deviate more from the market CSR index. Other variables are same in Table 2. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> $_{t+1}$	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Fund_CSR_name	0.0165*	0.0159*	0.0094
	(2.53)	(2.55)	(1.77)
Previous return	0.0390^{***}	0.0679^{***}	0.0173***
	(6.76)	(12.28)	(5.10)
Fund age	-0.0003	-0.0009***	-0.0004**
	(-1.65)	(-5.31)	(-3.29)
Fund size	-0.0028***	-0.0010^{*}	-0.0009**
	(-5.86)	(-2.12)	(-2.96)
Family size	-0.0004	0.0010^{*}	0.0015***
	(-0.75)	(2.17)	(4.84)
Management fee	0.0329***	0.0274^{***}	0.0054^{***}
	(16.83)	(14.58)	(4.30)
Fund flow	-0.0007	-0.0008^{*}	-0.0000
	(-1.77)	(-2.32)	(-0.01)
Fund turnover	0.0002	0.0016^{***}	-0.0011***
	(0.41)	(3.33)	(-3.75)
Expense ratio	-0.0334**	-0.0419***	-0.0026
	(-2.93)	(-3.96)	(-0.40)
Cons	0.9172^{***}	0.2813***	0.3496***
	(20.96)	(7.84)	(13.40)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
N	39391	39391	39391
adj. <i>R</i> ²	0.356	0.018	0.227

Table 9 Addressing endogeneity issues-1

This table reports results from regressing fund performance on fund CSR strategy and other fund characteristics. We construct a new variable *Fund_CSR_name*, which is a dummy variable that equals one if fund i's name contains the characters "corporate social responsibility", "CSR" or "ESG" in half year t-1. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)
	1 st stage	2 nd stage
	$Fund_CSR_t$	<i>Raw return</i> $_{t+1}$
Instrumented Fund_CSR		0.0150***
		(8.66)
City_Sustainablefocus	19.0068***	
	(10.01)	
Previous return	5.0595***	0.1205^{***}
	(18.17)	(10.17)
Fund age	-0.1906***	0.0063***
	(-5.74)	(9.29)
Fund size	1.2141***	-0.0307***
	(11.01)	(-11.26)
Family size	-3.8045***	0.0054
	(-18.24)	(0.68)
Management fee	11.2705***	-0.1476***
	(24.18)	(-7.22)
Fund flow	-0.4459***	0.0063***
	(-12.11)	(5.96)
Fund turnover	1.3220***	-0.0201***
	(16.06)	(-7.33)
Expense ratio	-11.5554***	0.0515
	(-6.99)	(1.39)
Cons	0.9172^{***}	0.3496***
	(20.96)	(13.40)
Time Fe	Yes	Yes
Fund family Fe	Yes	Yes
Type Fe	Yes	Yes
Weak identification test		
Kleibergen-Paap Wald	105.959	
F statistic		
N	39391	39391
adj. R^2	0.284	0.221

Table 10 Addressing endogeneity issues-2

This table presents the two-stage-least-square (2SLS) test for fund CSR score and fund performance. We use the instrument variable- *City_Sustainablefocus*, which represents the emphasis of local government on sustainable development as the percentage of sustainable development keywords number divided by total number of the work report words. Columns (1) reports the results for the first-stage regression and columns (2) reports the results of fund performance on the instrumented fund CSR score derived from columns (1). In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> $_{t+1}$	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Post	0.0273***	0.0210^{**}	0.0150^{**}
	(3.40)	(3.21)	(3.15)
Previous return	0.0113	0.1066^{***}	0.0795^{***}
	(0.42)	(4.47)	(5.09)
Fund age	-0.0004	-0.0009	-0.0003
	(-0.74)	(-1.77)	(-0.78)
Fund size	-0.0017	-0.0000	-0.0005
	(-0.93)	(-0.01)	(-0.48)
Family size	-0.2962***	-0.0246	-0.0701***
	(-19.43)	(-1.83)	(-9.14)
Management fee	0.0454^{***}	0.0406^{***}	0.0108^*
	(7.04)	(6.91)	(2.37)
Fund flow	0.0088^{***}	0.0087^{***}	0.0059^{***}
	(3.94)	(4.18)	(4.50)
Fund turnover	0.0013	-0.0001	-0.0004
	(0.77)	(-0.07)	(-0.42)
Expense ratio	-0.1014*	-0.0622^{*}	-0.0511*
	(-2.43)	(-2.02)	(-2.29)
Cons	6.8995***	0.6000	1.6957***
	(19.01)	(1.91)	(9.37)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
Ν	3357	3357	3357
adj. R^2	0.318	0.058	0.292

Table 11 Extended analysis-1

This table reports the estimates of the equation: $Fundperf_{i,t+1} = \beta_0 + \beta_1 \cdot Post_{i,t} + \phi \cdot Controls_{i,t} + \varepsilon_{i,t}$, which examines the fund performance change of mutual fund management company around the signatory event to the UN-supported Principles for Responsible Investment (PRI). For each mutual fund company signed to the PRI, our tests use both 3 semi-annul period preand pro-event fund performance data, for a 6-half year window [t-3, t+3]. Post is a dummy variable equals to one if the fund performance data are in the 3 periods following the fund management company signed to PRI and zero otherwise. We assume all the funds affiliated to a fund company apply to responsible investment principles after signatory of the fund management company. *Controls*_{i,t} is the vector for lagged control variables mentioned above. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.

	(1)	(2)	(3)
	<i>Raw return</i> $_{t+1}$	<i>Objectad_return</i> _{t+1}	$Alpha_{t+1}$
Fund_CSR	0.0009^{***}	0.0007^{***}	0.0001^{***}
	(12.63)	(10.74)	(3.49)
Fund_CSR * PRI	0.0008^{***}	0.0009^{***}	0.0006^{***}
	(4.16)	(4.80)	(4.41)
PRI	-0.0213***	-0.0235***	-0.0153***
	(-5.17)	(-5.83)	(-4.91)
Previous return	0.0277***	0.0578***	0.0134***
	(4.80)	(10.53)	(3.96)
Fund age	-0.0006**	-0.0010***	-0.0004**
	(-3.15)	(-5.74)	(-3.15)
Fund size	-0.0032***	-0.0016***	-0.0013***
	(-6.71)	(-3.62)	(-3.98)
Family size	-0.0372***	-0.0111***	-0.0135***
	(-19.38)	(-7.34)	(-12.41)
Management fee	0.0227***	0.0187***	0.0029*
	(11.06)	(9.49)	(2.13)
Fund flow	-0.0003	-0.0006	0.0000
	(-0.72)	(-1.64)	(0.21)
Fund turnover	-0.0008	0.0006	-0.0011***
	(-1.51)	(1.28)	(-3.83)
Expense ratio	-0.0244*	-0.0332**	-0.0058
	(-2.19)	(-3.21)	(-0.92)
Cons	0.7999***	0.2495***	0.3202***
	(18.00)	(7.09)	(12.58)
Time Fe	Yes	Yes	Yes
Fund family Fe	Yes	Yes	Yes
Type Fe	Yes	Yes	Yes
N	39391	39391	39372
adj. R^2	0.368	0.029	0.239

Table 12 Extended analysis -1

This table reports the estimates of the equation: $Fundperf_{i,t+1} = \beta_0 + \beta_1 \cdot Fund CSR_{i,t} + \beta_2 \cdot Fund CSR_{i,t} + \beta_3 \cdot PRI_{i,t} + \phi \cdot Controls_{i,t} + \varepsilon_{i,t}$, which examines whether signing the PRI have impact on the relationship between fund CSR score and fund performance. *PRI* is a dummy variable equals to one if the funds' management companies already signed to the PRI and zero otherwise. We assume all the funds affiliated to a fund company apply to responsible investment principles after signatory of the fund management company. *Controls_{i,t}* is the vector for lagged control variables mentioned above. In all regressions, we control for fund family fixed effects, time fixed effects and investment objective fixed effects and cluster standard errors at the fund level. *, **, and *** indicate 10%, 5%, and 1% significance levels, respectively, t-statistics are presented below in parentheses.