



# Article The Impact of COVID-19 on Investors' Investment Intention of Sustainability-Related Investment: Evidence from China

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**Abstract:** This paper investigates how investors respond to the COVID-19 pandemic, particularly regarding their intention to invest in sustainability-related investment (SRI) funds. We conduct two experiments online with participants who have experience with stock and fund investments. The first one includes 292 participants, which aims to explore investors' attitudes and investment intention of different sustainability-related components, and the second one includes 432 participants, which aims to examine how the COVID-19 pandemic affects individuals' attitudes and investment intention. Our results show that investors tend to invest in SRI funds when the threat of the COVID-19 pandemic is salient. Specifically, we find that although investors perceive environmental issues to be more important than economic and social issues, their investment intention of economic-focused SRI funds significantly increases in response to the COVID-19 pandemic threat. These findings suggest that fund managers can focus on particular types of investors when designing SRI funds, such as active investors with a preference for technical analysis and young female investors with a high level of income and education.

**Keywords:** sustainability-related investment funds; investment intention; COVID-19; environment; society; economy

# 1. Introduction

In recent years, while the rapid growth of the economy has created real value for world development, it also brings some negative effects and generates new concerns, such as global warming and further climate change [1,2]. Corporations are increasingly focusing on sustainable development that creates long-term stakeholder value through sustainability-friendly business strategies.

On the one hand, corporations exert greater effort on sustainability-related issues [3–7]. On the other hand, there is mixed evidence of investors' preference for such actions, i.e., the conflict between investors' appreciation of a corporation's effort in sustainability-related investment and investors' unwillingness to pay the associated premium [8–10]. Previous literature indicates that investors with certain characteristics, such as young female investors [11–13] and the investors with previous knowledge of sustainability [14] are more likely to be interested in sustainability-related investment. However, there is still a lack of understanding of investors' investment intention of different types of SRI funds, which is important for SRI fund product design and the associated marketing.

In 2020, the spread of COVID-19 significantly changed our daily lives, introducing both negative (e.g., travel bans and job cuts due to the shutdown of economic activities) [15,16] and positive effects (e.g., reduced carbon emissions) [17,18]. Following the COVID-19 pandemic crisis, while people are likely to be more cautious in their daily activities [19–22], including investment [23–26], it is also possible that they will pay more attention to their



Citation: Xu, X.; Xie, Y.; Xiong, F.; Li, Y. The Impact of COVID-19 on Investors' Investment Intention of Sustainability-Related Investment: Evidence from China. *Sustainability* **2022**, *14*, 5325. https://doi.org/ 10.3390/su14095325

Academic Editor: Donato Morea

Received: 14 March 2022 Accepted: 26 April 2022 Published: 28 April 2022

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**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). surroundings, including greater interest in and positivity towards SRI [25,27–30]. Therefore, a further examination of how COVID-19 pandemic influences investors' SRI investment intention is theoretically and practically useful.

We conducted two experiments online with participants who have experience with stock and fund investments. The first experiment includes 292 participants and aims to explore investors' attitudes and investment intention regarding different sustainabilityrelated components. The second experiment includes 432 participants and aims to examine how the COVID-19 pandemic affects individuals' attitudes and investment intention. In the first experiment, we explored consumers' attitudes and investment intention towards different sustainability-related components, such as economic, environmental, and social aspects, as well as associated particular components, referenced from the current global reporting initiative (GRI) standard framework. In the second experiment, we examined the interactive effect of the COVID-19 pandemic and the type of SRI funds on participants' investment intention of SRI funds. Participants were first randomly assigned to either a COVID-19 salience condition in which they were presented with COVID-19 pandemicrelated information and pictures or a control condition in which they read neutral materials. They were then randomly assigned to one of three different SRI component conditions (economic vs. environmental vs. social) and asked to indicate their investment intention for particular sustainability funds.

This paper first identifies the characteristics of investors who are interested in SRI, including active investors with a preference for technical analysis, and young female investors with high levels of income and education. Importantly, our results show that investors have a stronger investment intention for environmental issue-related investment. Second, this paper reveals that investors are more likely to invest SRI funds under the pandemic threat, with a significant increase in economic-related investment. Therefore, this paper makes the following contributions. First, we contribute to SRI literature by focusing on different types of SRI funds. Previous studies indicate that investors' attitudes towards corporate sustainability and general sustainability related investment are mixed [31–34]. Investors may not act in congruence with their claims. Our paper extends this stream of literature by investigating how different SRI types and components attract investors' attention and how investors' individual characteristics affect their attention to different SRI funds. Second, we provide new insights into the COVID-19 literature from an investor's perspective. The outbreak of COVID-19 has had a great impact on the economy and societal development. An increasing number of studies examine how corporate sustainability improve corporations' market competitiveness during the pandemic [35,36]. Little attention has been given to the effect of the COVID-19 pandemic on individual investors' reactions. Our paper implemented two experiments to research experienced investors' investment intention to SRI funds, investigating the interactive effect of the COVID-19 pandemic and the type of SRI funds on their willingness to invest in SRI funds. Our findings enrich the understanding of the economic and social impacts of the COVID-19 pandemic. Third, our findings have practical implications for the design and promotion of SRI funds. This paper reveals the impact of individual differences in investor characteristics in relation to their focuses on SRI funds, and identifies that investors have a stronger investment intention for environmental issue-related investment. Under the pandemic threat, investors are more likely to invest SRI funds, especially economic-related investment. It is essential for SRI fund managers to understand these differences so that they can better promote their products to individual investors."

The remainder of the paper is organized as follows. Section 2 reviews the related literature. Section 3 describes the experimental method and research design of Study 1. Section 4 presents the results of Study 1. Section 5 introduces the experimental method and research design of Study 2. Section 6 demonstrates the results of Study 2. Section 7 presents the results of robustness tests. Section 8 concludes the research article.

#### 2. Literature Review

#### 2.1. The Corporate Sustainability Framework

Corporate sustainability emphasizes creating long-term stakeholder value by implementing various business strategies regarding economic, social, and environmental issues [37]. It aims to balance the long and short-term interests, requiring trade-offs between providing competitive outcomes in the short run and protecting human and natural resources required in the future [38]. Previous literature has investigated the evolution of corporate sustainability, such as corporate social responsibility (CSR), environment, social and governance (ESG) and social responsibility [37], and recognized that CSR and ESG share a definition that is congruent with that of sustainability [32,39,40]. In this paper, we consider both CSR and ESG practices to be sustainability-related corporate actions.

Sustainability is a multidimensional concept [41,42]. Elkington [43] first raised the triple bottom line, identifying three basic factors of corporate sustainability, namely economic, social and environmental factors. According to the triple bottom line, the Global Sustainability Standards Board issued the GRI standards for sustainability reporting in 2014, which includes 3 dimensions, 34 indicators, and 83 specific topics (see Appendix A Table A1). It provides a comprehensive framework for evaluating an organization's economic, environmental, and social impacts on its sustainable development. In addition to focusing on firms' sustainability performance, GRI standards extend it to the sustainability performance of suppliers, such as supplier environmental assessment and supplier social assessment.

SRI is investment in companies that adhere to social, environmental, and ethical beliefs [44]. SRI can be made directly into individual companies with good social value, or indirectly through an SRI fund or exchange-traded fund (ETF). SRI includes identifying companies that are engaged in social justice, environmental sustainability, and alternative/clean energy efforts and eschewing investments in companies that produce or sell addictive substances, such as alcohol, gambling, and tobacco. In recent years, SRI has become increasingly popular and many SRI funds are available in the market for individual and institutional investors to trade. For example, in the first five months of 2020, the iShares ESG MSCI USA ETF (The ESGU aims to invest the U.S. companies that have positive environmental, social, and governance characteristics as identified by the index provider while exhibiting risk and return characteristics similar to those of the parent index. See https://www.ishares.com/us/products/286007/ishares-esg-msci-usa-etf-fund (accessed on 4 July 2020)). (ESGU) became the most popular fund, attracting 5400 million US dollars in new investment [45].

Due to the multiple dimensions of sustainability, SRI fund managers have to integrate diverse sustainability related components when making investment decisions. A criteria example is exhibited in Appendix A Table A2. In terms of the GRI sustainability standards, fund managers pay more attention to social and environmental factors than economic factors, such as anti-corruption, anti-competitive behavior, and tax. Appendix A Table A3 provides some examples of SRI funds with a specific sustainability focus, including Shariah-Compliant Investing, Impacting Investing, Green Investing, Fair Trade Investing, Community Investing, and Ethical Investing. For example, the Green Fund focuses on the environmental aspects of corporate sustainability, investing in firms that engage in environmentally supportive businesses, such as alternative energy and green transport. The Shariah-Compliant Fund concentrates on the social environmental aspects of corporate sustainability, seeking to invest in firms that adhere to Muslim religion.

Scholars have made efforts to research how to better promote SRI from the aspect of institutional investors, such as sovereign bond portfolio design [46], how to conduct better SRI fund governance [47], how civil society actors facilitate the adaptation of corporate sustainability in the finance and investment field [48,49], and how state pension funds use political leaning power to influence corporate CSR practice [50]. However, there is still a limited understanding of the specific SRI fund components to which individual investors pay more attention. This introduces the first research question of this paper:

RQ1: What particular SRI components do individual investors pay more attention to?

#### 2.2. Investors' View of Sustainability-Related Investment

A large set of studies investigates investors' views on SRI from multiple aspects. While investors in general give favor to SRI, retail (individual) and institutional investors present different approaches. In addition, previous literature not only examines how investors react to positive/negative sustainability-related reporting, but also how positive sustainability-related reporting can support corporations in crisis.

Previous literature has revealed that investors are in favor of investing companies that engage in sustainability related activities and create value for society [34,51], indicating that investors' overall attitude towards corporate sustainability is positive [31,32,52–55]. For example, individual investors demonstrate stronger intention to pay a higher price for corporate sustainability, but this positive relation is attenuated when they become rational [56]; individual investors are likely to forego financial performance to invest according to their sustainable preferences [57]. The stock market reacts more positively following the announcements of eco-friendly corporate actions, and corporate stock prices suffer less volatility following the announcement of general news [58,59].

In contrast, studies have also revealed that investors may not act in congruence with what they claim. Specifically, investors who are interested and engaged in SRI regard financial return as a more important factor than social responsibility and sustainability [9]. Budsaratragoon and Jitmaneeroj [60] indicate that companies' financial performance is complementary to their social responsibility and sustainability. Investors pay less (more) attention to ESG-related factors when the financial performance of the company is strong (weak). While both institutional and individual investors are less likely to sacrifice financial returns to support eco-friendly projects [8,10], such a phenomenon is more apparent among institutional investors [61]. Buzby [62] finds that fund managers pay more attention to economic-related corporate sustainability, such as whether the firm is involved in improper or illegal business or political practices, than environmental or society related issues. Moreover, they value financial indicators overwhelmingly when making investment decisions instead of addressing corporate sustainability issues. While institutional investors regard corporate sustainability related information as financially material for investment performance [63,64], they find it hard to pursue sustainable objectives at the expense of economic considerations [65]. Therefore, institutional investors are motivated to reduce financial risk and tend to overrate the importance of financial returns and underestimate the importance of ethical, environmental, and social aspects [66].

The above discussion/comparison between institutional and individual investors' reaction towards corporate sustainable disclosure suggests that individual investors exhibit greater interest in corporate sustainability and SRI funds relative to institutional investors. A greater focus on individual investors and examining how they react to different aspects of SRI funds appears to be important and meaningful.

Recent studies further investigate how investors respond to corporate socially responsible behaviors, and find that investors tend to boycott irresponsible companies rather than to support responsible companies [31,67]. Specifically, they exhibit more significant reactions to disclosures of bad environmental, ethical, and governance practice than to good news [68]. The stock prices of firms that disclose bad news, such as being removed from the Calvert Social Index, experience a significant decline, but there is little positive market reaction to addition to the Index [69]. When negative sustainability-related incidents are disclosed by a third-party organization, investors exhibit more intensive negative investment-related judgement [70]. The trust between a firm, its stakeholders, and investors, built through investment in sustainability, pays off in an unexpected low-trust period. For example, firms with better corporate sustainability performance had higher stock returns than their counterparts during the financial crisis [71]. The moral capital raised by corporate sustainability may have little to do with generating economic value but provides protection that preserves shareholder value when negative events occur [72]. Compared to firms with a poorer sustainability reputation, corporations with better sustainability performance tend to be buffered from the downwards pressure on their share

prices caused by bad news [73,74], which is called the insurance-like effect. However, the insurance-like effect may quickly disappear following the occurrence of a second negative event [75].

The above literature review indicates inconsistent conclusions regarding investors' investment intention of SRI funds. Although investors hold positive attitudes towards corporate sustainability, this does not necessarily imply that they will invest in SRI funds as congruent with their claims. Therefore, our paper aims to extend this stream of literature by investigating how investors perceive different types and components of SRI funds and providing detailed evidence for the design and promotion of SRI funds in practice.

#### 2.3. Contributing Factors to Investors' Intention to Interest in Corporate Sustainability Practices

Potential financial benefits and individuals' social preferences are two key factors for investing in corporations with better sustainability performance. On the one hand, corporations with better sustainability performance convey positive economic signals to investors. First, sustainable development indicates greater growth opportunities [76], generates improved stakeholder relationships with customers and governments [77] and enhances employee commitment [78], which transfers to better corporate performance and attracts potential investors. Second, sustainability disclosure reduces information asymmetry in financial markets. Firms with higher corporate sustainability disclose more precise information [79,80], enhancing stakeholders' trust and legitimacy [7]. Third, corporate sustainability conveys positive signals to investors in the capital market. For example, corporations voluntarily and continuously reporting sustainability related practices are less likely to be associated with corporate financial misconduct [81], as well as engaging in high-profile misconduct [73,82]. Fourth, firms that invest in sustainability issues have a greater capacity to access underlying resources to support their future development [83], generating greater returns on sales and sales growth [84,85].

On the other hand, SRI is in line with individual investors' preferences for sustainable development and social benefits. First, individuals' traits and demographic characteristics have a great impact on their perception of SRI. For example, younger female investors with high levels of education and income are more likely to believe that a company's social and environmental performance is as important as its financial performance [11,12]. Individuals who value the perception of belonging to a social group tend to allocate substantially more of their wealth to socially responsible banks [86]. Sawicka and Marcinkowska [13] focus on consumers' purchasing decisions and identify that both the youngest and oldest consumers and consumers with higher education levels show greater interest in CSR actions related to environmental protection. Second, prior experience and knowledge of social responsibility and sustainability make investors focus more on social, ethical, and environmental aspects than on traditional financial criteria when making investment decisions [14]. Consumers who already have socially responsible consumption and purchasing habits are the most willing to invest in a socially responsible manner [87].

However, the accounting and finance literature seems to simply treat corporate sustainability as one composite concept, paying little attention to multi-dimensional components of corporate sustainability. While existing studies have presented changes over time in investors' attitudes towards corporate sustainability [11,88], the underlying mechanism of how individual investors with different characteristics demonstrate distinct investment intention to specific components of corporate sustainability and SRI funds, remains unclear. Furthermore, little is known about how environmental factors, such as contagious disease pandemics, influence investors' concerns about sustainability issues. This paper responds to this gap in the literature and introduces the second research question:

RQ2: Which investor characteristics contribute to the intention to invest in SRI funds?

#### 2.4. Physiological Explanation of How the Pandemic Affects Individuals' Actions

Contagious diseases have a very long history of threatening human wellbeing [89]. Every epidemic of contagious diseases, such as HIV, Ebola, and COVID-19, has brought huge

losses to the world economy and has had a great impact on individuals' physiology and psychology [90,91]. In addition to the evolution of immune systems to combat pathogens, humans learn to behave in ways that enable them to avoid infection and mitigate the threat of disease before it enters the body, which is called the behavioral immune system [19,21,22]. The behavioral immune system affects not only people's social behavior, but also their consumption and investment preferences [23–25].

On the one hand, the behavioral immune system facilitates behavioral avoidance of pathogen infection, making people more socially avoidant and expressing less preference for risk taking [24,92]. In the context of a pathogen threat, people show aversion to uncertain information. They become xenophobic and exhibit negative reactions to foreigners since foreigners are thought to be an uncertain factor and are likely to violate local customs that serve as barriers against the transmission of disease [24,93]. Such a negative response can be expanded to a broader range of unfamiliar objects that individuals potentially encounter in their social and physical environment [25]. For example, people tend to seek familiar products and avoid those of foreign origin [23]. They are willing to pay premiums for products that are made domestically rather than in exotic foreign countries and place special value on "natural" and "cleanliness" [24]. When facing a high level of illness threat, people's tolerance of risks and losses decreases [94], as they prefer smaller, more certain gains to larger, probabilistic ones. Individuals who have recently been ill or under higher disease-salience conditions exhibit more pronounced disease-avoidance behaviors [93,95].

On the other hand, the behavioral immune system triggers disease-relevant emotional and cognitive responses, making people pay more attention to things that are in line with social benefits and sustainable development. People are disgusted not only by things that pose a real risk of pathogen infection but also by things that pose no risk at all but simply evoke associations with disease [96,97]. For example, individuals with physical disabilities and obesity have been found to automatically activate disease-relevant emotions, experiencing strong prejudice during pathogen transmission period [98]. Behaviors and objects that deviate from normative social expectations and trigger individuals' feelings of disgust [99], and such feelings lead to strong condemnation of moral violations [100]. Following this argument, corporations that care about ethical, environmental, and social aspects easily build strong bonds and trust with their individual investors and gain the valuation premium [27,30]. In contrast, corporations that engage in corporate social irresponsibility, i.e., countering individuals' responsible and prosocial needs, will trigger negative disease-related emotions and encounter intensive resistance. A review and discussion of how pandemics may affect investors' preference for sustainability-related investors are presented in two competing arguments, indicating that further evidence needs to be contributed to this debate.

# 2.5. How COVID-19 Affects Individuals' Investment Intention of SRI Funds?

The outbreak of COVID-19 caused a global economic crisis of unprecedented speed, scope, and severity. Stock prices worldwide underwent a dramatic collapse in the first quarter of 2020. A growing number of studies are exploring how corporations remain resilient and competitive during this disruption and highlight the role of sustainability [36]. Based on data on over 6000 firms across 56 economies, Ding et al. [35] found that firms that invested in sustainability-related activities strengthen their relationships with their workers, suppliers, customers, and local community, which can boost stakeholders' willingness to support firms' operations and enable those firms to enjoy much better stock-price performance and lower volatility in response to the pandemic. Other researchers have used sustainability scores or ratings derived from a third-party organization, such as TruValue Labs, Refinitive, and SynTao Green Finance, to measure firms' sustainability performance [101–103]. Firms with high scores tend to be better prepared to navigate away negative business impacts emerging during COVID-19 and perform strongly in maintaining financial stability, thus tending to have higher returns even after controlling for the usual firm characteristics [101]. Stocks that have high environmental, social and governance

ratings have been proven to be the most resilient in terms of both abnormal returns and downside risk [104]. Using data derived from natural language processing applied to news coverage of corporate response to the coronavirus crisis for 3023 companies around the world, Cheema-Fox et al. [105] demonstrated that more positive ESG sentiment around a company's response is associated with less negative returns. Broadstock et al. [102] pointed out that the importance of sustainability is attenuated in normal times, and strengthened during times of crisis.

The stable and high returns of sustainable funds and stocks suggest that investors' tastes are continuing to shift towards green assets and green products during COVID-19 [106]. Kotler [107] posited that citizens may re-examine what they consume during the COVID-19 pandemic and be more conscious of sustainability-related issues, such as the fragility of the planet, water pollution, and water shortages. Mahmoud and Meyer [104] carried out two experiments before and during the COVID-19 crisis. The experimental results showed that investors increased their emphasis on sustainability during the market uncertainty caused by the COVID-19 pandemic. Investors allocated a significantly higher percentage of their holdings to sustainable risky investment than normal risky investment in the midst of the COVID-19 crash, even among risk- and ambiguity-averse participants. However, investors exhibit few differences between the investment intention of sustainable and normal risky investments before the COVID-19 pandemic.

Following the wide recognition and expectation of corporate sustainability practice, SRI has been gaining popularity. While investors are unlikely to sacrifice investment return for SRI, the recent breakout of COVID-19 may change their preference, as they care more about the general society. Considering that the current debate indicates that investors can simultaneously become risk averse and care about their living environment, as well as the current literature presenting less volatility for sustainability-practicing listed companies, this paper asks the following question and develops the associated hypothesis:

RQ3: How does the COVID-19 pandemic threat affect investors' investment intention of SRI funds?

#### 3. Study 1—Research Methodology

## 3.1. Procedure and Data

Study 1 aims to answer the first and second research questions, exploring the contributing factors of investors' SRI experience and their preference for SRI. We adopted the online questionnaire approach and targeted experienced stock investors as questionnaire participants. We distributed the questionnaire via Wenjuanxing, a professional questionnaire distribution service (www.wjx.cn) (This is one of the most popular online survey websites in China. Since its launch in 2006, it has published more than 92.04 million questionnaires, and received over 7.35 billion responses. More than 90% of Chinese universities and research institutes have used this website to conduct questionnaire research). The content of the questionnaire was adopted from the most recent GRI standard, released by Global Sustainability Standard Board in 2016 [108] (https://www.globalreporting.org/standards/ (accessed on 4 July 2020)). Based on this framework, we include 7 items of economy-focused SRI funds, 8 items of environment-focused SRI funds, and 19 items of society-focused SRI funds in the questionnaire of Study 1. The participants were required to rate their investment intention for these three types of SRI funds and the specific sub-items, as well as their personal investment experience. The participants also reported whether they had previously heard about, received information on, invested in any SRI funds, and selected potential reasons for why they invested or did not invest in SRI funds. Finally, the participants reported their demographic information. We translated the contents into Chinese and cross-validated them. The survey participants received a small amount of monetary compensation for their participation following survey completion (approximately 1.3 USD) if their questionnaire answers passed the validity check.

We would like to point out that questionnaire participants do not necessarily have previous experience in SRI fund investment, as this study focuses more on investors' investment intentions, which will be of great help for future SRI fund design and promotion. Previous literature also shows that previous experience of SRI funds is not the necessary criteria when selecting investment intention responses, as in Jansson and Biel [61] and Raut et al. [109]. Therefore, we believe that it is reasonable to use the responses collected in this paper to answer our research questions.

We sent out 1010 online questionnaires and received 292 valid responses (Since the questionnaire used in Study 1 is relatively long, there are three attention checks that require to choosing the specified answer. Only responses that passes all attention checks are considered valid responses, which leaves only 292 participants provided the correct answers to all three questions (attention checks), which significantly reduces the number of valid responses). Table 1 shows the participants' demographic information. The average age of the participants was 32.74 years, and 43% were female. Participants with bachelor's degrees comprised the majority of the respondents. Most participants earned 5000 to 10,000 yuan per month (approximately 700 to 1400 USD) and invested 10.1% to 30% of their income in the capital market. As individuals in Hubei Province have a higher exposure to COVID-19 pandemic, COVID-19 may have a higher impact on their investment decision making. To exclude the effect of district, we label participants from Hubei Province as 1 and others as 0, and include district as a control variable in the following analysis. Among 292 valid responses, 14 were from Hubei Province and 278 were from non-Hubei Province.

**Table 1.** Descriptive statistics of experiment participants.

	Stu	dy 1	Stu	dy 2
	Frequency	Percentage	Frequency	Percentage
Age (Average)	32.74		33.46	
Gender				
Female	125	0.43	207	0.48
Male	167	0.57	225	0.52
District				
Hubei	14	0.05	18	0.04
Non-Hubei	278	0.95	414	0.96
Education/Degree				
Elementary school	0	0.00	0	0.00
Junior high school	0	0.00	1	0.00
High school	9	0.03	12	0.03
College	46	0.16	55	0.13
Bachelor's degree	193	0.66	310	0.72
Master's degree	41	0.14	48	0.11
Doctoral degree	3	0.01	6	0.01
N.O. of Family Members				
1	10	0.03	2	0.01
2	12	0.04	25	0.06
3	163	0.56	247	0.57
4	57	0.20	93	0.22
$\geq 5$	50	0.17	65	0.14
N.O. of Children				
0	103	0.35	97	0.23
1	168	0.58	279	0.66
$\geq 2$	21	0.07	56	0.13
Household				
Rented	44	0.15	33	0.08
Owned	248	0.85	399	0.92

	Stu	dy 1	Stu	dy 2
	Frequency	Percentage	Frequency	Percentage
25,001–30,000	5	0.02	10	0.02
30,001-35,000	8	0.03	4	0.01
35,001-40,000	5	0.02	1	0.00
40,001-45,000	3	0.01	3	0.01
45,001-50,000	1	0.00	2	0.01
>50,000	1	0.00	2	0.01
Deposit ratio				
0%	5	0.02	4	0.01
0.1–10%	42	0.14	48	0.11
10.1–30%	145	0.50	215	0.50
30.1–50%	81	0.28	128	0.30
50.1-70%	19	0.06	36	0.08
>70%	0	0.00	1	0.00
Fund investment ratio				
0%	0	0.00	2	0.01
0.1–10%	97	0.33	119	0.28
10.1–30%	137	0.47	232	0.54
30.1–50%	50	0.17	67	0.14
50.1-70%	7	0.03	11	0.03
>70%	1	0.00	1	0.00
Total	292		432	

Table 1. Cont.

This table reports the descriptive statistics of participants used in Studies 1 and 2. We also asked about participants' deposit and fund investment ratios, even though we do not consider them as contributing factors of SRI fund preference. Deposit and fund investment ratios measure the proportion of participants' monthly deposit and fund investment over their monthly incomes.

#### 3.2. Regression Model

Based on previous studies [11,12,110–112], we estimate the following regression model to examine the drivers of SRI experience and the preferences of investors. For example, younger female investors with high levels of education and income are more likely to believe that a company's social and environmental performance is as important as its financial performance [11,12]. Therefore, we include AGE, GENDER, EDUCATION, INCOME, and SAVING as the independent variables. Since household situation and the number of children in a family are two important indicators to measure the economic status of an investor, we also include HOUSEHOLD and CHILD as another two independent variables in our regression model. Prior literature shows that investment experience and preference have an impact on individuals' investment-related judgments [110–112]. Therefore, we include PASSIVE\_INVEST, TECH\_ANALYSIS, and INVEST, which measure participants' investment experience and preference, into our regression model. We implemented our experiments in China and Chinese people in Hubei Province have a higher exposure to the COVID-19 pandemic. COVID-19 may have a higher impact on their investment decision making. To exclude the effect of district, we label participants from Hubei Province as 1 and others as 0, and include district as a control variable in the regression model. The regression model is as follows:

BOUGHT (ECONOMY or ENVIORNMENT or SOCIETY) =  $\alpha 0 + \alpha 1$ INCOME +  $\alpha 2$ SAVING +  $\alpha 3$ PAS SIVE\_INVEST +  $\alpha 4$ TECH\_ANALYSIS +  $\alpha 5$ INVEST +  $\alpha 6$ GENDER +  $\alpha 7$ EDUCATION +  $\alpha 8$ HOUSEHOLD (1)

+  $\alpha$ 9AGE +  $\alpha$ 10CHILD +  $\alpha$ 11DISTRICT

The definitions of the dependent variables are as follows:

BOUGHT is a dummy variable taking the value of 1 if participants had experience in investing SRI funds, and 0 otherwise.

ECONOMY, ENVIRONMENT, and SOCIETY measure the level of the experiment participants' intention to invest in economy-related, environment-related, and society-related SRI funds, respectively. Respondents scored on a 7-point Likert scale, from strongly unwilling to invest (1) to strongly willing to invest (7).

Next, we describe our independent variables employed in the regression as follows:

INCOME is an ordered variable measuring the income level of experiment participants, taking the value of 1, 2, ... through 12 if they had a monthly income in the bracket of 5000 to 7500, 7501 to 10,000, 10,001 to 12,500, 12,501 to 15,000, ... through 45,001 to 50,000, and over 50,001, respectively (Chinese Yuan).

SAVING is an ordered variable measuring the saving habit of experiment participants, taking the value of 1, 2, ... 6 if their deposit rate fell in the bracket of 0%, 0.1% to 10%, 10.1% to 30%, 30.1% to 50%, 50.1–70%, and over 70%, respectively.

PASSIVE\_INVEST measures the participants' level of agreement that they tended to invest passively. Responses were scored on a 7-point Likert scale, from strongly active (1) to strongly passive (7).

TECH\_ANALYSIS measures the participants' level of agreement that they relied on technical analysis when making investment decisions. Responses were scored on a seven-point Likert scale, from strongly depend on fundamental analysis (1) to strongly depend on technical analysis (7).

INVEST is an ordered variable measuring the investment habit of experiment participants, taking the value of 1, 2, ... 6 if their deposit rate fell in the bracket of 0%, 0.1% to 10%, 10.1% to 30%, 30.1% to 50%, 50.1–70%, and over 70%, respectively.

GENDER is a categorical variable measuring the gender of experiment participants, taking the value of 1 or 2 if the experiment participant was male or female, respectively.

EDUCATION is an ordered variable measuring the education level of experiment participants, taking the value of 1, 2, 3, 4, 5, 6, and 7 if their highest education/degree was graduation from elementary school, junior high school, senior high school, college, bachelor's degree, master's degree, and doctoral degree, respectively.

HOUSEHOLD takes the value of 1 or 2 if the experiment participant is living in a rented or owned house, respectively.

AGE measures the age of experiment participants.

CHILD measures the number of children that the participants have, taking the value of 1, 2, and 3 if the experiment participant has no child, one child, or two or more children, respectively.

DISTRICT measures the location of the participants, taking the value of 0 or 1 if the participants were from non-Hubei province or Hubei province.

Table 2 presents correlations among these independent variables and indicates no serious incidence of multicollinearity.

	INCOME	SAVING	PASSIVE _INVEST	TECH _ANALYSIS	INVEST	GENDER	EDUCA TION	HOUSE HOLD	AGE	CHILD	DISTRICT
INCOME		0.149 **	-0.145 **	0.018	0.244 ***	-0.139 **	0.283 ***	0.083	0.192 ***	0.047	-0.045
SAVING	0.107 *		-0.037	0.059	0.196 ***	0.017	0.044	0.010	0.040	0.099 *	0.083
ASSIVE_INVEST	-0.145 **	-0.046		0.164 ***	-0.278 ***	0.234 ***	-0.028	-0.139 **	-0.116 **	-0.156 ***	0.079
ECH_ANALYSIS	0.030	0.056	0.161 ***		0.030	0.039	0.036	0.041	-0.060	0.007	0.072
INVEST	0.252 ***	0.156 ***	-0.276 ***	0.018		-0.016	0.151 ***	0.107 *	-0.003	0.047	0.042
GENDER	-0.133 **	0.028	0.254 ***	0.038	-0.028		0.124 **	0.016	-0.273 ***	-0.075	-0.032
EDUCATION	0.229 ***	0.018	-0.029	0.048	0.136 **	0.146 **		0.043	-0.271 **	-0.148 **	0.017
HOUSEHOLD	0.056	0.024	-0.138 **	0.040	0.103 *	0.016	0.049		0.180 ***	0.215 ***	-0.095
AGE	0.156 ***	-0.034	-0.109 *	-0.109 *	-0.046	-0.272 ***	-0.274 ***	0.173 ***		0.370 ***	0.080
CHILD	0.002	0.061	-0.142 **	0.016	0.034	-0.069	-0.153 ***	0.190 ***	0.308 ***		-0.031

Table 2. Correlations among independent variables.

Table 2. Cont.

	INCOME	SAVING	PASSIVE _INVEST	TECH _ANALYSIS	INVEST	GENDER	EDUCA TION	HOUSE HOLD	AGE	CHILD	DISTRICT
DISTRICT	-0.061	0.092	-0.072	0.076	0.029	-0.0322	0.019	-0.095	0.057	-0.029	

The table provides the correlations among independent variables. The Pearson and Spearman correlations are presented in the bottom left and top right corners, respectively. \*\*\*, \*\* and \* indicate significance at the 1, 5, and 10 percent levels (two-tailed). Where INCOME is an ordered variable measuring the income level of experiment participants, taking the value of 1, 2, ... through 12 if they had a monthly income in the bracket of 5000 to 7500, 7501 to 10,000, 10,001 to 12,500, 12,501 to 15,000, ... through 45,001 to 50,000, and over 50,001, respectively (Chinese Yuan); SAVING is an ordered variable measuring the saving habit of experiment participants, taking the value of 1, 2, ... 6 if their deposit rate fell in the bracket of 0%, 0.1% to 10%, 10.1% to 30%, 30.1% to 50%, 50.1–70%, and over 70%, respectively; PASSIVE\_INVEST measures the participants' level of agreement that they tended to invest passively. Responses were scored on a seven-point Likert scale, from strongly active (1) to strongly passive (7); TECH\_ANALYSIS measures the participants' level of agreement that they relied on technical analysis when making investment decisions. Responses were scored on a seven-point Likert scale, from strongly depend on fundamental analysis (1) to strongly depend on technical analysis (7); INVEST is an ordered variable measuring the investment habit of experiment participants, taking the value of 1, 2, ... 6 if their deposit rate fell in the bracket of 0%, 0.1% to 10%, 10.1% to 30%, 30.1% to 50%, 50.1%-70%, and over 70%, respectively; GENDER is a categorical variable measuring the gender of experiment participants, taking the value of 1 or 2 if the experiment participant was male or female, respectively; EDUCATION is an ordered variable measuring the education level of experiment participants, taking the value of 1, 2, 3, 4, 5, 6, and 7 if their highest education/degree was graduation from elementary school, junior high school, senior high school, college, bachelor's degree, master's degree, and doctoral degree, respectively; HOUSEHOLD takes the value of 1 or 2 if the experiment participant is living in a rented or owned house, respectively; AGE measures the age of experiment participants; CHILD measures the number of children that the participants have, taking the value of 1, 2, and 3 if the experiment participant has no child, one child, or two or more children, respectively. DISTRICT takes the value of 0 or 1 if the participants were from non-Hubei province or Hubei province.

#### 4. Study 1—Research Findings and Discussion

RQ1 explores particular components that attract investors' attention. To answer this research question, we analyzed the descriptive statistics of valid responses to the questions in Study 1. The descriptive statistics of individuals' intention to invest in SRI funds are as reported in Table 3. On the one hand, it shows that while more than half of the participants had ever heard of (72%), received information on (59%), and even purchased (54%) SRI funds, the top three reasons for supporting SRI fund investment were not obviously related to sustainability issues: high reliability (82%), fund recommendation (63%), and high return (52%). On the other hand, the survey participants who had not purchased SRI funds claimed that they had not come across SRI funds on sale (61%) and that they were concerned about the lack of national-level support for and endorsement of SRI funds (50%). These findings demonstrate that while SRI funds have received a certain level of public attention, further promotion of its core concept, as well as support and endorsement from the government, are needed.

Table 4 reports the descriptive statistics of the responses to the questions in Study 1. For economy-related SRI funds, 'economic performance' is the highest-ranked component. For society-related SRI funds, investors were more interested in 'occupational health and safety', 'training and education', 'customer health and safety', and 'customer privacy'. For environment-related SRI funds, investors perceived 'materials', 'energy', 'water and effluents', and 'emissions' to be more important.

	Stu	dy 1	Study 2					
	Frequency (Yes)	Percentage (Yes)	Frequency (Yes)	Percentage (Yes)				
Panel A: E	Panel A: Experience with SRI Funds							
Q1. Have you ever heard of sustainability-related investment?	211	0.72	390	0.90				
Q2. Have you ever received any SRI-related information?	171	0.59	294	0.68				
Q3. Have you every purchased SRI, including but not limited to funds, bonds etc.?	157	0.54	95	0.22				
Panel B: Reasons for Choosing SRI Funds (Participants who have invested in the SRI fund answer this question)								
High return rate	81	0.52	37	0.39				
High reliability	129	0.82	84	0.88				
Recommendation of investment institutions	99	0.63	33	0.35				
Ethical needs	25	0.16	38	0.40				
Religious needs	1	0.01	3	0.03				
Social pressure	41	0.26	25	0.26				
Environmental needs	59	0.38	59	0.62				
Others	2	0.01	2	0.02				
Panel C: Reasons for not Choosing SRI Fund (Partie	cipants who have no	t invested in an SRI f	und answer this que	stion)				
Low return rate	21	0.16	106	0.31				
Doubts about ethics and return	24	0.18	101	0.30				
No SRI fund on sale	83	0.61	177	0.53				
Lack of government support and promotion	67	0.50	192	0.56				
Already donate to charities	5	0.04	46	0.14				
Others	10	0.07	1	0.003				

# Table 3. Descriptive statistics regarding investment intention of SRI funds.

This table records the descriptive statistics of participants' experience with SRI funds and the contributing factors of participants' intention to invest in SRI funds according to the questionnaire in Study 1.

Panel A: Investment Intention								
	Strongly Unwilling to Invest (Percentage)	Very Unwilling to Invest (Percentage)	Unwilling to Invest (Percentage)	Neither Unwilling nor Willing to Invest (Percentage)	Willing to Invest (Percentage)	Very Willing to Invest (Percentage)	Strongly Willing to Invest (Percentage)	Average Invest Intention (S.D.)
To what extent are you willing to invest in these SRI funds?								
Economy-related SRI funds	2 (0.68%)	5 (1.71%)	8 (2.74%)	47 (16.10%)	95 (32.53%)	92 (31.51%)	43 (14.73%)	5.3151 (1.1592)
Society-related SRI funds	1 (0.34%)	5 (1.71%)	10 (3.42%)	48 (16.44%)	83 (28.42%)	101 (34.59%)	44 (15.07%)	5.3493 (1.1582)
Environment-related SRI funds	1 (0.34%)	4 (1.37%)	2 (0.68%)	20 (6.85%)	64 (21.92%)	102 (34.93%)	99 (33.90%)	5.8904 (1.0911)
To what extent are you willing to invest in economy-related SRI items?								
Economic performance	0 (0.00%)	1 (0.34%)	10 (3.42%)	41 (14.04%)	92 (31.51%)	94 (32.19%)	54 (18.49%)	5.4726 (1.0726)
Market presence	3 (1.03%)	6 (2.05%)	14 (4.79%)	73 (25.00%)	82 (28.08%)	82 (28.08%)	32 (10.96%)	5.0514 (1.2299)
Indirect economic impacts	3 (1.03%)	5 (1.71%)	16 (5.48%)	76 (26.03%)	95 (32.53%)	73 (25.00%)	24 (8.22%)	4.9521 (1.1744)
Procurement practices	3 (1.03%)	3 (1.03%)	18 (6.16%)	88 (30.14%)	75 (25.68%)	75 (25.68%)	30 (10.27%)	4.9658 (1.2151)
Anti-corruption	6 (2.05%)	8 (2.74%)	19 (6.51%)	60 (20.55%)	70 (23.97%)	70 (23.97%)	59 (20.21%)	5.1438 (1.4406)
Anti-competition behavior	0 (0.00%)	7 (2.40%)	29 (9.93%)	77 (26.37%)	84 (28.77%)	61 (20.89%)	34 (11.64%)	4.9075 (1.2442)
Tax	1 (0.34%)	9 (3.08%)	16 (5.48%)	76 (26.03%)	79 (27.05%)	76 (26.03%)	35 (11.99%)	5.0240 (1.2474)
To what extent are you willing to invest in society-related SRI items?								
Employment	1 (0.34%)	8 (2.74%)	21 (7.19%)	60 (20.55%)	86 (29.45%)	74 (25.34%)	42(14.38%)	5.0959 (1.2727)
Labor/management relations	3 (1.03%)	3 (1.03%)	16 (5.48%)	57 (19.52%)	92 (31.51%)	78 (26.71%)	43 (14.73%)	5.1849 (1.2241)
Occupational health and safety	0 (0.00%)	3 (1.03%)	9 (3.08%)	49 (16.78%)	73 (25.00%)	97 (33.22%)	61 (20.89%)	5.4897 (1.1472)
Training and education	0 (0.00%)	2 (0.68%)	13 (4.45%)	55 (18.84%)	64 (21.92%)	97 (33.22%)	61 (20.89%)	5.4521 (1.1817)
Diversity and equal opportunity	4 (1.37%)	4 (1.37%)	13 (4.45%)	48 (16.44%)	77 (26.37%)	92 (31.51%)	54 (18.49%)	5.3356 (1.2778)

**Table 4.** Descriptive statistics regarding investment intention of SRI funds (Study 1).

#### Table 4. Cont.

Panel A: Investment Intention								
	Strongly Unwilling to Invest (Percentage)	Very Unwilling to Invest (Percentage)	Unwilling to Invest (Percentage)	Neither Unwilling nor Willing to Invest (Percentage)	Willing to Invest (Percentage)	Very Willing to Invest (Percentage)	Strongly Willing to Invest (Percentage)	Average Invest Intention (S.D.)
Non-discrimination	5 (1.71%)	5 (1.71%)	13 (4.45%)	49 (16.78%)	78 (26.71%)	81 (27.74%)	61 (20.89%)	5.3185 (1.3385)
Attention check: please choose "very willing" as your answer	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	292 (100.00%)	0 (0.00%)	6.0000 (0.0000)
Freedom of association and collective bargaining	1 (0.34%)	5 (1.71%)	22 (7.53%)	72 (24.66%)	81 (27.74%)	76 (26.03%)	35 (11.99%)	5.0377 (1.2249)
Child labor	27 (9.25%)	16 (5.48%)	26 (8.90%)	39 (13.36%)	66 (22.60%)	69 (23.63%)	49 (16.78%)	4.7260 (1.8183)
Forced or compulsive labor	15 (5.14%)	23 (7.88%)	29 (9.93%)	57 (19.52%)	81 (27.74%)	49 (16.78%)	38 (13.01%)	4.5925 (1.6293)
security practices	2 (0.68%)	6 (2.05%)	20 (6.85%)	67 (22.95%)	73 (25.00%)	87 (29.79%)	37 (12.67%)	5.0959 (1.2645)
Rights of indigenous peoples	9 (3.08%)	10 (3.42%)	29 (9.93%)	66 (22.60%)	79 (27.05%)	61 (20.89%)	38 (13.01%)	4.8185 (1.4589)
Human rights assessment	1 (0.34%)	13 (4.45%)	21 (7.19%)	56 (19.18%)	86 (29.45%)	77 (26.37%)	38 (13.01%)	5.0411 (1.3128)
Local communities	1 (0.34%)	3 (1.03%)	15 (5.14%)	51 (17.47%)	102 (34.93%)	88 (30.14%)	32 (10.96%)	5.1986 (1.1099)
Supplier social assessment	1 (0.34%)	9 (3.08%)	13 (4.45%)	64 (21.92%)	99 (33.90%)	82 (28.08%)	24 (8.22%)	5.0308 (1.1587)
Public policy	6 (2.05%)	16 (5.48%)	28 (9.59%)	78 (26.71%)	68 (23.29%)	61 (20.89%)	35 (11.99%)	4.7432 (1.4499)
Customer health and safety	0 (0.00%)	3 (1.03%)	7 (2.40%)	37 (12.67%)	71 (24.32%)	102 (34.93%)	72 (24.66%)	5.6370 (1.1177)
Marketing and labelling	1 (0.34%)	7 (2.40%)	22 (7.53%)	79 (28.42%)	83 (28.42%)	70 (23.97%)	30 (10.27%)	4.9384 (1.2225)
Customer privacy	2 (0.68%)	9 (3.08%)	14 (4.79%)	42 (14.38%)	60 (20.55%)	95 (32.53%)	70 (23.97%)	5.4452 (1.3472)
Socioeconomic compliance	1 (0.34%)	3 (1.03%)	13 (4.45%)	47 (16.10%)	97 (33.22%)	83 (28.42%)	48 (16.42%)	5.3185 (1.1538)
To what extend are you willing to invest in environment-related SRI items?								
Materials	0 (0.00%)	2 (0.68%)	5 (1.71%)	24 (8.22%)	53 (18.15%)	120 (41.10%)	88 (30.14%)	5.8767 (1.0314)

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			Panel A: Investmen	t Intention				
	Strongly Unwilling to Invest (Percentage)	Very Unwilling to Invest (Percentage)	Unwilling to Invest (Percentage)	Neither Unwilling nor Willing to Invest (Percentage)	Willing to Invest (Percentage)	Very Willing to Invest (Percentage)	Strongly Willing to Invest (Percentage)	Average Invest Intention (S.D.)
Energy	1 (0.34%)	2 (0.68%)	5 (1.71%)	20 (6.85%)	72 (24.66%)	103 (35.27%)	89 (30.48%)	5.8253 (1.0715)
Water and effluents	0 (0.00%)	2 (0.68%)	11 (3.77%)	22 (7.53%)	52 (17.81%)	113 (38.70%)	92 (31.51%)	5.8459 (1.1062)
Biodiversity	2 (0.68%)	3 (1.03%)	10 (3.42%)	42 (14.38%)	79 (27.05%)	95 (32.53%)	61 (20.89%)	5.4726 (1.1939)
Emissions	1 (0.34%)	3 (1.03%)	10 (3.42%)	29 (9.93%)	69 (23.63%)	111 (38.01%)	69 (23.63%)	5.6404 (1.1416)
Waste	1 (0.34%)	3 (1.03%)	15 (5.14%)	31 (10.62%)	79 (27.05%)	102 (34.93%)	61 (20.89%)	5.5137 (1.1767)
Environmental compliance	0 (0.00%)	3 (1.03%)	10 (3.42%)	31 (10.62%)	82 (28.08%)	108 (36.99%)	58 (19.86%)	5.5616 (1.0902)
Attention check: please choose "neither unwilling nor willing"	0 (0.00%)	0 (0.00%)	0 (0.00%)	292 (100.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	4.0000 (0.0000)
Supplier environmental assessment	0 (0.00%)	5 (1.71%)	19 (6.51%)	55 (18.84%)	90 (30.82%)	86 (29.45%)	37 (12.67%)	5.1781 (1.1735)
			Panel B: Investment	Preference				
	Strongly Active (Percentage)	Very Active (Percentage)	Active (Percentage)	Both (Percentage)	Passive (Percentage)	Very Passive (Percentage)	Strongly Passive (Percentage)	Average Preference of Passive Investment (S.D.)
1. Do you prefer active investment (e.g., stocks) or passive investment (e.g., bonds)	28 (9.59%)	97 (33.22%)	74 (25.34%)	55 (18.84%)	19 (6.51%)	14 (4.79%)	5 (1.71%)	3.0068 (1.3698)
	Strongly Depend on Fundamental Analysis (Percentage)	Very Depend on Fundamental Analysis (Percentage)	Depend on Fundamental Analysis (Percentage)	Both (Percentage)	Depend on Technical Analysis (Percentage)	Very Depend on Technical Analysis (Percentage)	Strongly Depend on Technical Analysis (Percentage)	Average dependence on Technical Analysis
2. Do you depend on fundamental analysis or technical analysis when investing in a project?	8 (2.74%)	47 (16.10%)	64 (21.92%)	106 (36.30%)	40 (13.70%)	23 (7.88%)	4 (1.37%)	3.7123 (1.2679)

This table reports the descriptive statistics of participants' intention to invest in particular SRI components based on data in Study 1. We assign numbers to all Likert points, 1 to 7 (1 for strongly unwilling to invest and 7 for strongly willing to invest) to report an average investment intention of each SRI component; 1 to 7 (1 for strongly active and 7 for strongly passive) to report an average preference for passive investment; 1 to 7 (1 for strongly dependent on fundamental analysis and 7 for strongly dependent on technical analysis) to report an average dependence on technical analysis.

RQ2 investigates the effect of individual characteristics on investors' investment intention to SRI funds. To answer this research question, we ran a logistic regression model by using participants' experience of investing in the economy/environment/society as dependent variable, and using the eleven individual characteristics identified in Section 3.2 as independent variables. Table 5 records the results of logistic regressions examining how investors with particular demographic characteristics present a distinct purchase intention for SRI funds. The first column reveals that investors with the following characteristics are more likely to invest in SRI funds in general (i.e., no particular SRI focus): active rather than passive investment strategies (coef. = -0.178, p = 0.081), prefer technical analysis to fundamental analysis (coef. = 0.232, p = 0025), have a higher education level (coef. = 0.447, p = 0.031) and are younger (coef. = -0.033, p = 0.082). The second to fourth columns exhibit the results of using ECONOMY, ENVIRONMENT, and SOCIETY as particular focuses of SRI intention, respectively. For economy-related SRI funds, more active (coef. = -0.101, p = 0.065) and younger investors (coef. = -0.029, p = 0.006) with a higher income (coef. = 0.074, p = 0.032) are more likely to invest. For environment-related SRI funds, female (coef. = 0.456, p = 0.001) investors are more likely to invest. These findings are in line with the results of previous studies showing that young female investors with higher levels of education and income tend to believe that firms' social and environmental performance is as important as their financial performance [11,12]. Interestingly, we observe that investors who own their house (vs. rent) are less likely to invest in environment-related SRI funds (coef. = -0.389, p = 0.034). In general, we argue that individuals with more assets prefer a more stable society. For example, voters with house ownership are more likely to vote for conservative parties in elections [113]. At the same time, we observe a negative but insignificant coefficient for the GENDER variable in social-related SRI fund preference, indicating that male investors show greater interest in such funds. Such observation appears to contradict findings in previous literature claiming that female investors are more interested in in-general CSR activities [11,12]. These observations are worth further investigation.

Table 5. Drivers of SRI funds investment intention (Study 1).

	In General Coefficient (z-Statistic)	Economy Coefficient ( <i>t-</i> Statistic)	Environment Coefficient (t-Statistic)	Society Coefficient (t-Statistic)
	0.020	0.074	0.039	0.044
INCOME	(0.32)	(2.16 **)	(1.20)	(1.28)
SAVINC	-0.028	-0.074	-0.050	-0.020
SAVING	(-0.19)	(-0.90)	(-0.65)	(-0.23)
DACCIVE INIVECT	-0.178	-0.101	-0.082	-0.046
FA55IVE_IINVE51	(-1.74 *)	(-1.85 *)	(-1.62)	(-0.83)
TECH ANALVEIS	0.232	0.025	-0.026	0.086
IECH_ANALISIS	(2.25 **)	(0.45)	(-0.51)	(1.55)
INIVECT	-0.005	-0.030	-0.112	-0.031
IIN VEST	(-0.03)	(-0.33)	(-1.30)	(-0.33)
CENIDER	0.087	0.035	0.456	-0.157
GENDER	(0.32)	(0.24)	(3.33 ***)	(1.05)
EDUCATION	0.447	-0.035	-0.103	0.018
EDUCATION	(2.16 **)	(-0.32)	(-1.02)	(0.16)
	-0.465	-0.065	-0.389	-0.228
HOUSEHOLD	(-1.30)	(-0.33)	(-2.13 **)	(-1.15)
ACE	-0.033	-0.029	-0.008	-0.016
AGE	(-1.74 *)	(-2.77 ***)	(-0.83)	(-1.56)
	0.368	0.078	0.170	0.120
CHILD	(1.60)	(0.63)	(1.48)	(0.96)
DICTRICT	0.677	0.421	0.377	-0.072
	(1.07)	(1.31)	(1.26)	(-0.22)

	In General Coefficient	Economy Coefficient	Environment Coefficient (t. Statistic)	Society Coefficient
	(2-314115110)	(1-Statistic)	(1-Statistic)	(1-Statistic)
Testernesset	-0.621	6.539	6.661	5.523
Intercept	(-0.54)	(10.43 ***)	(11.44 ***)	(8.73 ***)
Chi <sup>2</sup> statistic	27.08			
Pseudo R <sup>2</sup>	0.0672			
F-statistic		1.59	2.31 **	1.06
Adjusted R <sup>2</sup>		0.022	0.047	0.002
Ń	292	292	292	292

Table 5. Cont.

This table reports the regression result where participants' investment intention of general, economy, environment, and society represent particular related SRI funds as dependent variables (based on data obtained in Study 1). \*, \*\*, and \*\*\* denote significance at 0.1, 0.05, and 0.01, respectively (two-tailed).

According to the above results, we argue that active investors exhibit stronger intention to invest in SRI funds than their passive counterparts, as they tend to actively seek and receive related information from different sources. Therefore, future promotion of SRI fund could target these investors, as well as the investors with particular characteristics as identified above.

#### 5. Study 2—Research Methodology

#### 5.1. Experimental Design, Procedure, and Data

Study 2 aims to answer RQ3, investigating how the COVID-19 pandemic and the type of SRI funds jointly affect participants' investment intention of SRI funds. To answer this research question, we conduct a 2 (pandemic: pandemic salience vs. control) \*3 (SRI types: economy vs. environment vs. society) between-subjects experimental design, with pandemic salience and type of SRI fund as independent variables. Table 6 demonstrates our experimental design. Participants were randomly assigned to one of the six experimental conditions. For participants in the pandemic condition, a series of pictures featuring the impact of COVID-19 were provided and their pandemic-salience mindset was activated. For participants in the control condition, information and pictures about architectures (see Appendix A Table A4 (All used figures are publicly available from the Internet such as the Centers of Disease Control and Prevention) for details) were provided. Participants in the economy (environment) [social] -related SRI condition were asked to rate their investment intention of economy (environment) [social] -related SRI funds according to the results of Study 1 (see Table 4 for reference) (In Study 1, there were 7 items of economy-focused SRI funds, 8 items of environment-focused SRI funds, and 19 items of society-focused SRI funds. The reason for selecting the top 4 mentioned items instead of adopting all of the items used in Test 1 is that too many items dilute the effect of post-pandemic manipulation. Therefore, we used the top 4 mentioned items to measure the participants' intention to invest in the three kinds of SRI funds).

Table 6. Experimental design (Study 2).

COVID-19 Pandemic Salience							
SRI Type	COVID Salience	Control					
Economy-related SRI	Receive pictures of COVID-19, then rate the investment intention of economy-related SRI fund	Receive pictures of architectures, then rate the investment intention of economy-related SRI fund					
Environment-related SRI	Receive pictures of COVID-19, then rate the investment intention of environment-related SRI fund	Receive pictures of architectures, then rate the investment intention of environment-related SRI fund					
Society-related SRI	Receive pictures of COVID-19, then rate the investment intention of society-related SRI fund	Receive pictures of architecture, then rate the investment intention of society-related SRI fund					

This table records the experiment conditions to which the participants will be assigned to in Experiment 2.

As a manipulation check, participants indicated their threat-related emotions with seven items, including "afraid", "threatened", "unset", "uncomfortable", "fear", "tension", and "frustrated" (1 = not at all, 7 = very much;  $\alpha$  = 0.951). The items will be averaged to form a threat feeling index. After that, participants rated their intention to invest in the SRI funds. Towards the end, participants reported their demographics and investment experience. The survey participants received a small amount of monetary compensation (approximately 1.3 USD) following the survey completion if their questionnaire passed the validity check.

We sent out 601 questionnaires and received 432 valid responses (screened by two attention check questions (Similar to Study 1, two attention check questions were in place in the questionnaire, asking participants to choose the specified answers, and 432 participants provided correct answers of both attention check questions)). Table 1 shows the demographic information of the participants in Study 2. The average age of the participants was 33.46 years, and 48% were female. Eighteen participants were from Hubei Province and 414 participants were from non-Hubei Province.

The patterns of the participants' education, income, and investment experience were similar to those in Study 1.

#### 5.2. Measurement of the Dependent Variable (SRI Investment Intention)

## 5.2.1. Between-Subject Measure

When participants were assigned to one of the three major SRI types after the pandemic/control manipulation, they indicated their investment intention for that specific SRI type (economic, environmental, or social). There was no significant difference in the participants' districts among these three treatment groups (K-W ANOVA, p = 0.411), indicating the successful randomization of the experimental participants.

#### 5.2.2. Within-Subject Measures

After the between-subject measure, each participant also rated his or her investment intention for the four most frequently mentioned SRI items detailed in the three SRI funds on a seven-point Likert scale, from strongly unwilling to invest (1) to strongly willing to invest (7). We created an index for investors' intention to invest in a specific SRI fund by averaging the scores of these four items.

#### 6. Study 2—Research Findings and Discussion

Manipulation Check. We performed a one-way between-subjects ANOVA on the threat feeling index as a function of the pandemic manipulation experimental condition. The ANOVA results revealed a significant difference between the two conditions (F(1, 430) = 320.66, p < 0.001,  $\eta_p^2 = 0.427$ ). Participants in the COVID condition ( $M_{COVID} = 4.132$ , SD = 1.486) reported higher threat-related feelings than participants in the control condition ( $M_{Control} = 2.062$ , SD = 0.790). Therefore, our COVID pandemic salience manipulation was successful.

Table 7 demonstrates the detailed information of participants' investment intention for each item of SRI fund. Panel A of Table 8 reports the descriptive statistics and Panel B presents the results of the two-way analysis of variance (ANOVA) with SRI investment intention as the dependent variable. Figure 1 is based on the results in Panel A, showing a significant increase in SRI fund investment intention from the control condition to the COVID condition. The results in Panel B reveal the significant effect of both COVID-19 (p = 0.028) and the SRI component (p = 0.035), indicating that participants changed their investment intention for SRI funds when facing the threat of the COVID-19 pandemic and showed different levels of investment intention among the three SRI components. However, we failed to find a significant interaction effect of COVID-19 and the three SRI components (p = 0.408).

Panel A: SRI Investment Intention								
	Strongly Unwilling to Invest	Very Unwilling to Invest	Unwilling to Invest	Neither Unwilling nor Willing to Invest	Willing to Invest	Very Willing to Invest	Strongly Willing to Invest	Average Invest Intention (S.D.)
To what extent are you willing to invest in these SRI funds?								
Economy-related SRI funds	0 (0.00%)	0 (0.00%)	0 (0.00%)	4 (2.68%)	43 (28.85%)	67 (44.96%)	35 (23.50%)	5.8926 (0.7896)
Society-related SRI funds	0 (0.00%)	0 (0.00%)	0 (0.00%)	4 (2.80%)	39 (27.27%)	74 (51.75%)	26 (18.18%)	5.853 (0.7400)
Environment-related SRI funds	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	30 (21.43%)	70 (50.00%)	40 (28.57%)	6.0714 (0.7060)
To what extent are you willing to invest in economy-related SRI items?								
<ol> <li>The item focusing on the positive economic value creation and distribution of operating activities.</li> </ol>	0 (0.00%)	1 (0.23%)	3 (0.69%)	14 (3.24%)	106 (24.54%)	198 (45.83%)	110 (25.46%)	5.9144 (0.8506)
2. The item focusing on the financial risks and opportunities brought by climate change in operating activities	0 (0.00%)	2 (0.46%)	18 (4.17%)	46 (10.65%)	145 (33.56%)	159 (36.81%)	62 (14.35%)	5.4514 (1.0274)
3. The item focusing on formulating clear employee welfare policies, including retirement plans, etc.	0 (0.00%)	0 (0.00%)	3 (0.69%)	25 (5.79%)	99 (22.92%)	185 (42.82%)	120 (27.78%)	5.9120 (0.8916)
<ol><li>Attention check: please choose "neither unwilling nor willing" as your answer.</li></ol>	0 (0.00%)	0 (0.00%)	0 (0.00%)	432 (100.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	4.0000 (0.0000)
5. The item focusing on development without government funding.	6 (1.39%)	20 (4.63%)	55 (12.73%)	99 (22.92%)	121 (28.01%)	103 (23.84%)	28 (6.48%)	4.6898 (1.3353)
To what extent are you willing to invest in society-related SRI items?								
<ol> <li>The item focusing on workplace health and security; health and security conference will be held regularly to introduce and discuss types of work-related injuries and diseases.</li> </ol>	0 (0.00%)	0 (0.00%)	5 (1.16%)	32 (7.41%)	118 (27.31%)	162 (37.50%)	115 (26.62%)	5.8102 (0.9518)
2. The item focusing on employee training and education, including specifying average training time, formulating training plans, conducting regular assessments of their abilities and encouraging them to obtain career development.	1 (0.23%)	2 (0.46%)	6 (1.39%)	29 (6.71%)	133 (30.79%)	138 (31.94%)	123 (28.47%)	5.7708 (1.0334)
3. Attention check: please choose "willing" as your answer.	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	432 (100.00%)	0 (0.00%)	6.0000 (0.0000)
4. The item focusing on customer health and security, evaluating the health and security standards of products and services, and dealing with related incidents appropriately.	0 (0.00%)	0 (0.00%)	5 (1.16%)	29 (6.71%)	110 (25.46%)	148 (34.26%)	140 (32.41%)	5.9005 (0.9714)
5. The item focusing on protection of customer privacy, dealing with complaints about customer privacy and customer data loss.	0 (0.00%)	3 (0.69%)	9 (2.08%)	34 (7.87%)	108 (25.00%)	145 (33.56%)	133 (30.79%)	5.8102 (1.0667)

# **Table 7.** Descriptive statistics regarding investment intention of SRI funds (Study 2).

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Table 7. Cont.

Panel A: SRI Investment Intention	

	Strongly Unwilling to Invest	Very Unwilling to Invest	Unwilling to Invest	Neither Unwilling nor Willing to Invest	Willing to Invest	Very Willing to Invest	Strongly Willing to Invest	Average Invest Intention (S.D.)
To what extent are you willing to invest in environment-related SRI items?								
1. The item focusing on using recyclable materials for production, packaging, etc.	0 (0.00%)	1 (0.23%)	6 (1.39%)	13 (3.01%)	100 (23.15%)	170 (39.35%)	142 (32.87%)	5.9861 (0.9189)
2. The item focusing on avoiding production or use of coal, nuclear power	3 (0.69%)	3 (0.69%)	13 (3.01%)	46 (10.65%)	124 (28.70%)	171 (39.58%)	72 (16.67%)	5.5139 (1.0962)
3. Attention check: please choose "neither unwilling nor willing" as your answer	0 (0.00%)	0 (0.00%)	0 (0.00%)	432 (100.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	4.0000 (0.0000)
4. The item focusing on water resources management and sewage treatment	0 (0.00%)	3 (0.69%)	8 (1.85%)	12 (2.78%)	73 (16.90%)	178 (41.20%)	158 (36.57%)	6.0579 (0.9604)
5. The item focus on reducing greenhouse gas emissions	0 (0.00%)	1 (0.23%)	3 (0.69%)	9 (2.08%)	108 (25.00%)	176 (40.74%)	135 (31.25%)	5.9907 (0.8643)
		Panel B: General I	nvestment Preference	5				
	Strongly Active	Very Active	Active	Both	Passive	Very Passive	Strongly Passive	Average preference of passive investment
1. Do you prefer active investment (e.g., stocks) or passive investment (e.g., bonds)?	28 (6.48%)	167 (38.66%)	115 (26.62%)	79 (18.29%)	25 (5.79%)	16 (3.70%)	2 (0.46%)	2.9120 (1.2096)
	Strongly Depend on Fundamental Analysis	Very Depend on Fundamental Analysis	Depend on Fundamental Analysis	Both	Depend on Technical Analysis	Very Depend on Technical Analysis	Strongly Depend on Technical Analysis	Average tendency on technical analysis
2. Do you depend on fundamental analysis or technical analysis when investing in a project?	6 (1.39%)	53 (12.27%)	75 (17.36%)	139 (32.18%)	87 (20.14%)	67 (15.51%)	5 (1.16%)	4.0856 (1.3084)

This table reports the descriptive statistics of participants' intention to invest in particular SRI components as in the questionnaire used in Study 2. We assign numbers to all Likert points, 1 to 7 (1 for strongly unwilling to invest and 7 for strongly willing to invest) to report an average intention to invest in each SRI component; 1 to 7 (1 for strongly active and 7 for strongly passive) to report an average preference for passive investment; 1 to 7 (1 for strongly dependent on fundamental analysis and 7 for strongly dependent on technical analysis) to report an average dependence on technical analysis.

Panel A: Investment Intention, Mean [Standard Error], <i>n</i> = 432						
SRI Component COVID-19		Control		Total		
Economic	6.04 [0.70] n = 68	5.77 [0.84	n = 81	5.89 [0.79] <i>n</i> = 149		
Environmental	6.09 [0.69] n = 77	6.05 [0.73	] n = 63	6.07 [0.7	1] <i>n</i> = 140	
Social	5.92 [0.75] n = 78	5.77 [0.72	] n = 65	5.83 [0.7	4] <i>n</i> = 143	
Column mean	6.02 [0.72] <i>n</i> = 209	5.85 [0.78]	] <i>n</i> = 223			
Panel B: Two-way ANOVA Model of Inve	stment Intention					
Source of Variation	SS	df	MS	F-Stat	<i>p</i> -Value	
SRI Component	3.748	2	1.874	3.386	0.035	
COVID-19/Control	2.692	1	2.692	4.865	0.028	
SRI Component X COVID-19/Control	0.994	2	0.497	0.898	0.408	
Error	235.709	426	0.553			
Panel C: Follow-up Tests of Simple Effects	;					
Source of Variation		Contrasts	df	t-Stat	<i>p</i> -Value	
Effects of COVID-19 given Economic (COV	ID > Control)	0.28	147	2.28	0.02	
Effects of COVID-19 given Social (COVID-1	9 vs. Control)	0.15	141	1.23	0.22	
Effects of COVID-19 given Environment (C	OVID vs. Control)	0.04	138	0.34	0.73	
Effects of SRI Component given Control		0.28	142	2.26	0.02	
(Environment > Economic)		0.20	142	2.20	0.02	
Effects of SRI Component given Control		0.00	144	0.03	0.98	
(Social vs. Economic)		0.00	111	0.00	0.20	
Effects of SRI Component given Control		-0.28	126	-2.12	0.03	
(Social < Environment)	0.20	120	2.12	0.00		
Effects of SRI Component given COVID-19	0.05	143	0.38	0 71		
(Environment vs. Economic)		0.00	110	0.00	0.71	
Effects of SRI Component given COVID-19	-0.12	144	-0.98	0.33		
(Social vs. Economic)		0.12	111	0.90	0.00	
Effects of SRI Component given COVID-19		-0.17	153	-140	0.16	
(Social vs. Environmental)	0.17	100	1.10	0.10		

Table 8. The influence of the COVID-19 pandemic on investment intention of SRI funds.

This table presents tests of H1. The dependent variable is participants' investment intention of SRI funds. Panel A presents descriptive statistics, which are graphically depicted in Figure 1. Panel B presents an ANOVA and panel C presents follow-up simple effects tests. In experiment 2, we manipulate the information presented to experiment participants by showing them either COVID-19 information ("COVID") or architecture information ("COVID"). <sup>a</sup> *p*-values are one-tailed for directional predictions.

The results of the follow-up simple effects tests shown in Panel C reveal that participants demonstrated stronger intention to invest in economy-focused SRI funds in reacting to the COVID-19 pandemic threat (p = 0.02), yet their intention to invest in society-focused and environment-focused SRI funds did not significantly increase under the threat of the COVID-19 pandemic. In the control condition, i.e., no COVID-19 information, participants tended to invest in environment-focused SRI funds more than in the other two SRI types (p = 0.02 relative to economy-focused SRI funds and p = 0.03 relative to society-focused SRI funds), which is in line with the findings of Study 1. When investors were exposed to the COVID-19 threat, the differences in investment intention among the three SRI components decreased and evened out, suggesting that all types of SRI funds have gained similar attention and interest from investors since the beginning of the COVID-19 pandemic.

The above findings indicate that investors exhibit greater intention to invest in SRI funds under the influence of pandemics. This finding is consistent with the previous literature, which argued that companies with greater CSR/ESG performance/ratings suffer less volatility during crises [101,104,106].



**Figure 1.** The effect of COVID-19 pandemic information on investors' SRI funds investment intention. This figure graphically represents observed mean values for participants' SRI funds investment intention in experiment 2 (see Table 8 for descriptive statistics). In experiment 2, we manipulate the information presented to experiment participants by showing them either COVID-19 information ("COVID") or architecture information ("Control").

#### 7. Robustness Tests

# 7.1. Robustness Test 1 for Study 1

In Study 1, we first measured investors' general investment intention for the three major types of SRI funds by asking: "To what extent are you willing to invest in these SRI funds (economy-related, society-related, and environment-related)?" As reported in Table 4, we further asked the investors about their intention to invest in particular items of the different SRI fund focuses according to the GRI standard (7 for economy, 19 for society, 8 for environment). To examine the robustness of investors' general investment intention, we used the average scores of these particular items as proxies for the participants' investment intention for economy-focused, society-focused, and environment-focused SRI funds to further examine the robustness of the results in Study 1. Consistent with the findings in Study 1, the results shown in Table 9 reveal that younger (economy-focused) and female (environment-focused; society-focused) investors exhibit greater interest in SRI funds, while other investors' characteristics (active investment, greater income, and renting house) maintained the same direction but no significant association. The changes in the results may be due to the participants' diminishing attention when completing a long questionnaire.

	Economy Coefficient (t-Statistic)	Environment Coefficient (t-Statistic)	Society Coefficient (t-Statistic)
INCOME	0.036	0.020	0.035
INCOME	(1.46)	(0.84)	(1.48)
CAVINC	-0.010	-0.026	-0.065
SAVING	(-0.17)	(-0.45)	(-1.14)
DACCIVE INIVECT	-0.041	-0.030	0.005
PASSIVE_INVEST	(-1.05)	(-0.76)	(0.14)
TECH ANALVEIS	0.001	-0.026	0.005
TECH_ANALISIS	(0.03)	(-0.68)	(0.12)
INTVECT	0.027	0.027	0.037
INVEST	(0.42)	(0.43)	(0.59)
CENIDER	0.107	0.218	0.171
GENDEK	(1.02)	(2.13 **)	(1.69 *)
FDUCATION	0.035	0.021	0.010
EDUCATION	(0.45)	(0.28)	(0.12)
HOUSEHOLD	-0.011	-0.191	0.117
HOUSEHOLD	(-0.08)	(-1.39)	(0.86)
ACE	-0.016	-0.010	-0.019
AGE	(-2.20 **)	(-1.338)	(-2.70 ***)
CHII D	0.221	0.234	0.159
CHILD	(2.50 **)	(2.72 ***)	(1.87 *)
DISTRICT	0.3128	0.137	0.254
DISTRICT	(1.36)	(0.61)	(1.15)
Intercent	5.333	5.818	5.529
intercept	(11.91 ***)	(13.34 ***)	(12.86 ***)
F-statistic	1.61	1.82 *	1.74 *
Adjusted R <sup>2</sup>	0.023	0.030	0.027
Ν	292	292	292

Table 9. Drivers of SRI fund investment intention (Robustness Test 1 for Study 1).

This table reports the robustness check regression result where participants' investment intention of general, economy, environment, and society represent particular related SRI funds as dependent variables, based on the questionnaire data obtained in Study 1. Experiment participants in Study 1 are asked about their investment intention of SRI funds in general and particular SRI funds' items. We used the average scores of these particular items as proxies for the participants' investment intention of economy-focused, society-focused, and environment-focused SRI funds to further examine the robustness of the results in Study 1. \*, \*\*, and \*\*\* denote significance at 0.1, 0.05, and 0.01, respectively (two-tailed).

#### 7.2. Robustness Test 2 for Study 1

In Study 2, participants were asked about their general investment intention for the three major types of SRI funds (see Table 7 for reference), with both general questions and those with particular corresponding items. Therefore, we performed two more robustness tests for the results in Study 1, and the results are recorded in Table 10. Consistent with the findings in Study 1, active investors are more likely to purchase SRI funds related to the economy and environment, while society- and economy-related SRI funds are more likely to attract male investors and young investors, respectively.

	Robustness Test 2A			Robustness Test 2B			
	Economy	Environment	Society	Economy	Environment	Society	
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	
	( <i>t-</i> Statistic)	(t-Statistic)	(t-Statistic)	( <i>t-</i> Statistic)	(t-Statistic)	(t-Statistic)	
INCOME	0.022	0.081	0.040	0.015	0.029	0.021	
	(0.60)	(2.92 ***)	(1.00)	(0.91)	(1.73 *)	(1.23)	
SAVING	0.204	-0.189	-0.033	0.014	0.052	-0.016	
	(2.46 **)	(-2.67 ***)	(-0.40)	(0.38)	(1.38)	(-0.40)	
PASSIVE_INVEST	-0.220	-0.129	-0.088	-0.075	-0.106	-0.156	
	(-4.14 *)	(-2.74 ***)	(-1.59)	(-3.04 ***)	(-4.20 ***)	(-5.98 ***)	
TECH_ANALYSIS	-0.044	0.097	0.005	0.037	0.012	-0.015	
	(-0.86)	(2.10 **)	(0.09)	(1.60)	(0.52)	(-0.60)	
INVEST	0.108	-0.016	0.084	0.002	-0.076	0.032	
	(1.34)	(-0.19)	(0.95)	(0.05)	(-1.83 *)	(0.75)	
GENDER	0.028	-0.055	-0.2549	-0.068	-0.017	-0.163	
	(0.23)	(-0.47)	$(-1.96^*)$	(-1.13)	(-0.27)	(-2.58 **)	
EDUCATION	-0.061	-0.153	0.072	0.021	-0.019	0.071	
	(-0.57)	(-1.61)	(0.60)	(0.44)	(-0.39)	(1.40 *)	
HOUSEHOLD	0.058	0.214	-0.247	0.151	-0.011	0.002	
	(0.20)	(1.10)	(-1.06)	(1.35)	(-0.10)	(0.02)	
AGE	-0.007	-0.007	-0.008	0.000	-0.003	-0.010	
	(-1.85 *)	(-0.81)	(0.84)	(0.04)	(-0.56)	(-1.95 *)	
CHILD	0.076	-0.033	0.215	0.107	-0.005	0.009	
	(0.71)	(-0.33)	(1.80 *)	(2.02 **)	(-0.09)	(0.16)	
DISTRICT	0.093	0.076	0.677	0.209	0.304	0.276	
	(0.34)	(0.24)	(1.98 *)	(1.42)	(2.03 **)	(1.77 *)	
Intercept	6.247	6.870	6.086	5.196	6.230	6.423	
	(12.10 ***)	(12.06 ***)	(10.61 ***)	(18.66 ***)	(22.01 ***)	(21.84 ***)	
F-statistic	2.73 ***	2.55 ***	1.62	2.19 **	2.64 ***	5.132 ***	
Adjusted R <sup>2</sup>	0.114	0.110	0.046	0.030	0.065	0.096	
N	149	140	143	432	432	432	

Table 10. Drivers of SRI fund investment intention (Robustness Test 2 for Study 1).

This table reports the robustness check regression result where participants' investment intention of general, economy, environment, and society represent particular related SRI funds as dependent variables, based on the questionnaire data obtained in Study 2. Experiment participants in Study 2 were asked about their general investment intention of particular items in economy-focused, society-focused, and environment-focused SRI funds. We used the scores of general SRI funds' investment intention and average scores of the (selected top four, ranked) particular items as proxies for the participants' investment intention of economy-focused, society-focused, and environment-focused SRI funds to further examine the robustness of the results in Study 1. \*, \*\*, and \*\*\* denote significance at 0.1, 0.05, and 0.01, respectively (two-tailed).

#### 7.3. Robustness Test for Study 2

In Study 2, participants randomly assigned to either condition (COVID and control) were required to answer questions about their general investment intention for the three major types of SRI funds, with both general questions and questions about particular corresponding items (see Table 7 for reference). We perform two robustness tests based on participants' answers of these two types of questions (questions about participants' general investment intention for robustness test 2A, questions about participants' investment intention for participant items for robustness test 2B). The results are recorded in Table 11. Consistent with the findings in Study 2, we observe a significant increase in investors' intention to invest in economy-related SRI funds in response to the threat of COVID-19. The positive influence of pandemic salience was observed in all three types of SRI funds in robustness test 2B.

	Robustness Test 2A				Robustness Test 2B			
	Economy	Environment	Society	Economy	Environment	Society		
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient		
	( <i>t-</i> Statistic)	(t-Statistic)	(t-statistic)	(t-Statistic)	(t-Statistic)	( <i>t-</i> Statistic)		
COVID	0.265	0.024	0.149	0.100	0.125	0.106		
	(2.10 *)	(0.21)	(1.17)	(1.70 *)	(2.08 **)	(1.69 *)		
INCOME	0.023	0.080	0.043	0.014	0.027	0.020		
	(0.63)	(2.81 ***)	(1.08)	(0.85)	(1.65 *)	(1.17)		
SAVING	0.211	-0.188	-0.019	0.019	0.059	-0.011		
	(2.57 ***)	(-2.65 ***)	(-0.24)	(0.51)	(1.54)	(-0.27)		
PASSIVE_INVEST	-0.198	-0.129	-0.089	-0.072	-0.102	-0.153		
	(-3.71 ***)	(-2.74 ***)	(-1.61)	(-2.93 ***)	(-4.08 ***)	(-5.87 ***)		
TECH_ANALYSIS	-0.052	0.097	0.004	0.037	0.012	-0.015		
	(-1.03)	(2.10**)	(0.08)	(1.61)	(0.53)	(-0.60)		
INVEST	0.128	-0.014	0.084	0.005	-0.072	0.036		
	(1.58)	(-0.17)	(0.95)	(0.13)	(-1.74*)	(0.83)		
GENDER	0.016	-0.055	-0.247	-0.069	-0.019	-0.165		
	(0.13)	(-0.46)	(-1.91 *)	(-1.16)	(-0.31)	(-2.61 **)		
EDUCATION	-0.088	-0.154	0.091	0.022	-0.018	0.072		
	(-0.82)	(-1.61)	(0.89)	(0.45)	(-0.37)	(1.42)		
HOUSEHOLD	0.055	0.217	-0.273	0.152	-0.011	0.003		
	(0.19)	(1.10)	(-1.17)	(1.36)	(-0.09)	(0.02)		
AGE	-0.007 (-1.94 *)	-0.007 (-0.77)	-0.007 (-0.75)	0.001 (0.23)	-0.002 (-0.33)	-0.008 (-1.76 *)		
CHILD	0.067	-0.032	0.214	0.107	0.004	0.008		
	(0.63)	(-0.32)	(1.80 *)	(2.02 **)	(0.08)	(0.15)		
DISTRICT	0.083 (0.31)	0.081 (0.26)	0.620 (1.79 *)	0.200 (1.36)	0.293 (1.96 *)	0.266 (1.71 *)		
Intercept	6.144	6.845	5.913	5.091	6.10	6.313		
	(12.00 ***)	(11.69 ***)	(9.99 ***)	(17.88 ***)	(21.12 ***)	(20.99 ***)		
F-statistic	2.93 ***	2.32 ***	1.61	2.25 **	2.80 ***	4.97 ***		
Adjusted R <sup>2</sup>	0.133	0.103	0.049	0.034	0.048	0.104		
Ń	149	140	143	432	432	432		

Table 11. Drivers of SRI fund investment intention (Robustness Test for Study 2).

This table reports the robustness check regression result where participants' investment intention of general, economy, environment, and society represent particular related SRI funds as dependent variables, based on the questionnaire data obtained in Study 2. We performed two robustness tests based on the participants' investment intention in two different conditions. \*, \*\*, and \*\*\* denote significance at 0.1, 0.05, and 0.01, respectively (two-tailed).

#### 8. Conclusions

The recent COVID-19 pandemic crisis presents an opportunity for the general public to rethink the status of our daily lives and what we can do to better protect our environment. Following the concept of companies as individual social entities, their actions should also be socially responsible. SRI funds focus on investing in companies that practice various aspects of CSR. To fill the gap in the previous literature, this paper conducts two studies to answer three research questions. Study 1 explores the aspects/component of SRI funds that investors pay more attention to and prefer to invest in, and the associated contributing factors. Experimental results show that participants have a stronger investment intention for environmental issue related investment. Our findings identify the characteristics of investors who are interested in SRI funds, including active investors with a preference for technical analysis, and young female investors with high levels of income and education. Study 2 focuses on the interactive effect of the COVID-19 pandemic and the type of SRI funds on investors' investment intention of SRI funds. We find that investors are more likely to invest SRI funds under the pandemic threat, with a significant increase in economic related investment.

We contribute to the literature in the following aspects. First, while there have been numerous discussions of how investors perceive CSR practice, such as investors considering

CSR to be important but unable to tolerate lower financial returns [8-10], our understanding of what aspects of CSR investors pay more attention to is still limited. This paper shows that while a certain proportion of general investors have heard of, received information about, and even purchased SRI funds, the main challenges of SRI fund promotion are that there are still some investors who have not encountered SRI funds on sale, and they are concerned about the lack of national-level support for and endorsement of SRI funds. Following the further classification of SRI fund preferences, this paper found that SRI funds are more popular among active investors who prefer the technical analysis approach, as well as young female investors with high levels of income and education, which is consistent with the previous literature [11,12]. Other interesting findings include that investors owning a house are less likely to purchase SRI funds, while male investors may be more interested in particular society-related SRI funds. These observations are worth further discussion. Second, this paper shows further evidence supporting the importance of conducting CSR for corporations, enabling them not only to suffer less volatility during a pandemic crisis but also to become more popular even in the pandemic-salience setting. Investors are more interested in SRI funds under the influence of pandemic salience. Such findings are consistent with the previous literature [104,107]. Third, we contribute further evidence of how pandemic salience affects investors' preference for SRI funds. As previous literature has argued that the general public, on the one hand, is risk averse in cases of illness [94] yet, on the other hand, cares about the environment (social benefits and sustainable development) [99], the findings of increasing interest in SRI funds under the influence of pandemic salience contribute further evidence to this argument.

This paper also provides practical implications. First, it identifies the types of investor characteristics that are highly related to SRI, such as active investors who prefer technical analysis investors, in addition to the previously identified young female investors with high levels of income and education. This finding allows SRI fund managers to better target potential investors interested in SRI funds. Second, we record the particular CSR/SRI components that investors are interested in. For example, investors perceive 'materials', 'energy', 'water and effluents', and emissions' to be more important. Such findings are essential for fund managers in considering their product design and marketing to achieve greater product sales. Third, this paper shows that while we observe investors' greater interest in environment-related SRI funds under normal conditions; under the pandemic influence, general investors present no significant difference in their SRI type preference. Fourth, our findings show that the lack of national-level support for and endorsement of SRI funds and no suitable SRI funds. To improve the popularity and development of SRI funds, the government needs to provide more support and endorsement to SRI funds.

This paper has limitations. First, the experiment participants (investors) were from China, focusing on the Chinese investment market, and thus were likely to have different attitudes/mindsets towards SRI funds, in comparison to participants from other regions. Second, the experiment sample size was relatively small, especially for inter-condition comparisons. Future research could consider conducting a similar experiment with participants from different cultural backgrounds and with a larger sample size.

**Author Contributions:** Formal analysis, X.X.; Investigation, Y.L.; Methodology, Y.X.; Writing—original draft, F.X. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research was funded by [National Natural Science Fund of China] grant number (71790602, 71672162, 71772156, 71672157); [Chinese Ministry of Education] grant number (13JJD790028, 16JJD790034); [Chinese Fundamental Research Funds for Central Universities] grant number (20720201011; 20720151132). And The APC was funded by [Chinese Fundamental Research Funds for Central Universities] grant number (20720201011).

Conflicts of Interest: The authors declare no conflict of interest.

# Appendix A

Table A1. GRI Sustainability Standard.

Indicator	Specific Topic				
	Economy				
	201-1 Direct economic value generated and distributed				
201 Economic performance	201-2 Financial implications and other risks and opportunities due to climate change				
201 Beolionne performance	201-3 Defined benefit plan obligations and other retirement plans				
	201-4 Financial assistance received from government				
202 Market presence	202-1 Ratios of standard entry level wage by gender compared to local minimum wage				
202 Warket presence	202-2 Proportion of senior management hired from the local community				
203 Indirect	203-1 Infrastructure investments and services supported				
economic impacts	203-2 Significant indirect economic impact				
204 Procurement practices	204-1 proportion of spending on local suppliers				
	205-1 Operations assessed for risks related to corruption				
205 Anti-corruption	205-2 Communication and training about anti-corruption policies and procedures				
	205-3 Confirmed incidents of corruption and actions taken				
206 Anti- competitive behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices				
207 Tax	207-1 Approach to tax				
	207-2 Tax governance, control, and risk management				
	207-3 Stakeholder engagement and management of concerns related to tax				
	207-4 Country-by-country reporting				
	Environment				
	301-1 Materials used by weight or volume				
301 Materials	301-2 Recycled input materials used				
	301-3 Reclaimed products and their packaging materials				
	302-1 Energy consumption within the organization				
202 F	302-2 Energy consumption outside of the organization				
302 Energy	303-3 Energy intensity				
	303-4 Reduction of energy consumption				
	303-5 Reductions in energy requirements of products and services				
	303-1 Interactions with water as a shared resource				
	303-2 Management of water discharge-related impacts				
303 Water and effluents	303-3 Water withdrawal				
	303-4 Water discharge				
	303-5 Water consumption				
	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas				
304 Biodiversity	304-2 Significant impacts of activities, products, and services on biodiversity				
	304-3 Habitats protected or restored				
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations				

Table A1. Cont.

Indicator	Specific Topic					
	305-1 Direct GHC emissions					
	305-2 Energy indirect GHC emissions					
20E Environiente	305-3 Other indirect GHC emissions					
305 Emissions	305-4 GHC emissions intensity					
	305-5 Reduction of GHC emissions					
	305-6 Emissions of ozone-depleting substances (ODS)					
	305-7 Nitrogen oxides (Nox), sulfur oxides (Sox), and other significant air emissions					
	306-1 Waste generation and significant waste-related impacts					
	306-2 Management of significant waste-related impacts					
306 Waste	306-3 Waste generated					
	306-4 Waste diverted from disposal					
	306-5 Waste directed to disposal					
307 Environmental compliance	307-1 Non-compliance with environmental laws and regulations					
308 Supplier	308-1 New suppliers that were screened using environmental criteria					
environmental assessment	308-2 Negative environmental impacts in the supply chain and actions taken					
	Society					
	401-1 New employee hires and employee turnover					
401 Employment	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees					
	401-3 Parental leave					
402 Labor/ management relations	402-1 Minimum notice periods regarding operational changes					
	403-1 Workers representation in formal joint management-worker health and safety committees					
403 Occupational health	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities					
and safety	403-3 Workers with high incidence or high risk of diseases related to their occupation					
	403-4 Health and safety topics covered in formal agreements with trade unions					
	404-1 Average hours of training per year per employee					
404 Training and education	404-2 Programs for upgrading employee skills and transition assistance programs					
	404-3 Percentage of employees receiving regular performance and career development reviews					
405 Diversity and	405-1 Diversity of governance bodies and employees					
equal opportunity	405-2 Ratio of basic salary and remuneratio of women to men					
406 Non-discrimination	406-1 Incidents of discrimination and corrective actions taken					
407 Freedom of association and collective bargaining	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk					
408 Child labor	408-1 Operations and suppliers at significant risk for incidents of child labor					
409 Forced or compulsive labor	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor					
410 Security practices	410-1 Security personnel trained in human rights policies or procedures					

Indicator	Specific Topic			
411 Rights of indigenous peoples	411-1 Incidents of violations involving rights of indigenous peoples			
	412-1 Operations that have been subject to human rights reviews or impact assessments			
412 Human	412-2 Employee training on human rights policies or procedures			
rights assessment	412-3 Significant investment agreements and contracts that include human right clauses or that underwent human rights screening			
413 Local communities	413-1 Operations with local community engagement, impact assessments and development programs			
415 Local continuantics	413-2 Operations with significant actual and potential negative impacts on local communities			
414 Supplier	414-1 New suppliers that were screened using social criteria			
social assessment	414-2 Negative social impacts in the supply chain and actions taken			
415 Public policy	415-1 political contributions			
416 Customer health	416-1 Assessment of the health and safety impacts of product and service categories			
and safety	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services			
417 Markating	417-1 Requirements for product and service information and labeling			
and labeling	417-2 Incidents of non-compliance concerning product and service information and labeling			
	417-3 Incidents of non-compliance concerning marketing communications			
418 Customer privacy	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data			
419 Socioeconomic compliance	419-1 Non-compliance with laws and regulations in the social and economic area			

Table A1. Cont.

SRI Dimension	Screening Criteria	Definition	GRI
Environment	Climate/Clean Technology	Focus on risk and opportunities related to climate change and greenhouse gas emissions, or business technologies, efficient use of natural resources, or mitigating negative economic impacts; includes clean energy generation, infrastructure and storage	302, 305
Livioliten	Pollution/Toxic	Consideration of toxicity of products and operations and/or pollution management and mitigation, including recycling waste management and water purification	301, 303, 306
	Other Environmental	Focus on environmental issues outside the criteria specified here	
	Community Development	Focus on provision of affordable housing, fair consumer lending, small and medium business support and other services and support to low- and medium-income communities	413
	Diversity & Equal Employment Opportunity	Consideration of diversity and equal employment opportunity policies and practices relating to employees, company ownership or contractors	405
Society	Human Rights	Consideration of risks associated with human rights and companies' respect for human rights within their internal operations and the countries in which they do business, often with particular emphasis on relations with indigenous peoples, supply-chain management and conflict zones	406, 411, 412
	Labor Relations	Consideration of companies' labor or employee relation programs, employee involvement, health and safety, employment and retirement benefits, union relations or workforce reductions	401, 402, 403, 404, 407, 408, 409, 410
	Conflict Risk	Exclusion or partial exclusion of companies that conduct business in countries identified as repressive regimes or state sponsors of terrorism	307, 419

SRI Dimension	Screening Criteria	Definition	GRI	
Governance	Board Issues	Consideration of directors' independence, diversity, pay and responsiveness to shareholders	201, 202, 203	
	Executive Pay	Consideration of companies' executive pay practices, especially whether pay policies are reasonable and aligned with shareholders' or other stakeholders' long-term interests	201, 202, 203	
	Alcohol	Exclusion or partial exclusion of companies involved in the production, licensing and/or retailing of alcohol products or in the manufacturing of products necessary for production of alcoholic beverages, as well as ownership by an alcohol company	416, 419	
Decidente	Animal Welfare	Consideration of companies' policies and practices towards animals in consumer product testing, where such testing is not legally required, particularly where such tests inflict pain or suffering on the test animals, and the treatment of animals raised or used for food and other goods and services	304, 419	
Products	Defense/Weapons	Exclusion or partial exclusion of companies that derive a significant portion of their revenues from the manufacture or retailing of firearms or ammunition for civilian use, or from military weapons	416, 419	
	Gambling	Exclusion or partial exclusion of companies involved in licensing, manufacturing, owning or operating gambling interests	416, 419	
	Tobacco	Exclusion or partial exclusion of companies involved in the production, licensing, and/or retailing of tobacco products or in the manufacturing of products necessary for production of tobacco products	416, 419	
Source: Obtained from https://www.ussif.org (accessed on 4 July 2020)				

 Table A2. Cont.

Table A3. Categories of the SRI fund.

SRI Category	Definition	Examples
Shariah-Compliant Funds	Funds screen potential portfolio investments governed by the requirements of Shariah law and the principles of the Muslim religion. Shariah-compliant funds are required to exclude investments which derive a majority of their income from the sale of alcohol, pork products, pornography, gambling, military equipment or weapons.	(1) Amana Growth Fund (AMAGX) (2) Walden Asset Management Fund (WSBFX) (3) Walden Midcap Fund (WAMFX)
Impact Investing Funds	<ul> <li>An investment strategy that not only generates financial returns but also creates constructive outcomes. The strategy actively seeks to make a positive impact by investing, for example, in nonprofits that benefit the community or in clean-technology enterprises that benefit the environment. Impact investments span a number of industries including (1) healthcare;</li> <li>(2) education; (3) energy, especially clean and renewable energy; and (4) agriculture.</li> </ul>	<ul> <li>(1) Parnassus Endeavor Investor (PARWX)</li> <li>(2) TIAA-CREF Social Choice Bond Retail (TSBRX)</li> <li>(3) Vanguard FTSE Social Index Inv (VFTSX)</li> </ul>
Green Fund	Mutual funds or investment vehicles that will only invest in companies that engage in environmentally supportive businesses, such as alternative energy, green transport, water and waste management, and sustainable living.	<ul> <li>(1) TIAA-CREF Social Choice Equity Fund (TICRX)</li> <li>(2) Green Century balanced (GCBLX)</li> <li>(3) Calvert Green Bond Fund A (CGAFX)</li> </ul>

Table A3. Cont.

SRI Category	Definition	Examples
Fair Trade Investing Fund	Investing in companies or projects that promote fair trade with producers in developing nations, which focus on the trading relationships between advanced economies and developing nations. The basic principles include creating opportunities for economically disadvantaged producers, promoting transparency and accountability at all levels of the supply chain, ensuring no child labor or forced labor etc.	(1) ClearBridge Sustainability Leaders Fund (LCILX)
Community Investing Funds	Direct investments into poor communities via community development banks, credit unions, loan fund and microfinance institutions.	<ul> <li>(1) CRA Qualified</li> <li>Investment-CRA (CRAIX)</li> <li>(2) CRA Qualified Investment- Institutional (CRANX)</li> <li>(3) CRA Qualified</li> <li>Investment-Retail (CRATX)</li> </ul>
Ethical Investing Funds	Using one's ethical principles as the primary filter for the selection of securities investing. Ethical investors typically avoid investments from sin stocks, companies involved with stigmatized activities, such as gambling, alcohol, smoking, or firearms.	<ul> <li>(1) 1919 Socially Responsive Balanced Fund-A (SSIAX)</li> <li>(2) Domini Social Bond Fund-Investor shares (DSBFX)</li> <li>(3) Boston Common International Fund (BCAIX)</li> </ul>

## Table A4. COVID and control conditions.

**COVID Condition** 

A novel coronavirus pneumonia update was reported on 16 August 16 2020. The global number of confirmed cases increased by 267,291 over the day before. The number of confirmed cases in the world exceeded 21 million 290 thousand, reaching 21,294,845 cases. The global report of death cases exceeded 760 thousands, reaching 761,779 cases, an increase of 5985 cases over the previous day.

> COVID-19 Novel Coronavirus Can cause lung injury, pneumonia, and multiple organ failure



#### **Control Condition**

Architectural style refers to the characteristics reflected in the content and appearance of architectural design, which mainly lies in the original and perfect artistic conception shown in the plane layout, form composition, artistic treatment and application of techniques. The architectural style is different due to the restriction of politics, society, economy, building materials and technology, and the influence of architectural design ideas, viewpoints and artistic quality.

Modernist architecture

Modern style, use of new materials and new technology to construct buildings that fit the modern lifestyle, with magnificent appearance, and rarely use decoration.





Table A4. Cont.

**COVID Condition** 

**Control Condition** 

Classical architectural style It refers to the Italian Renaissance architecture, Baroque architecture and classical Renaissance architecture developed on the basis of ancient Greek architecture and Roman architecture. The common feature of them is the use of classical column.









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